

The idea of practical physick in twelve books ... These ... They contain the marrow of all the works of Daniel Sennertus, and Fernelius, and twenty five physitians more / ... Written in Latin by John Johnston ... And Englished by Nich. Culpeper ... And W.R. [Wm. Rowland or Wm. Rand].

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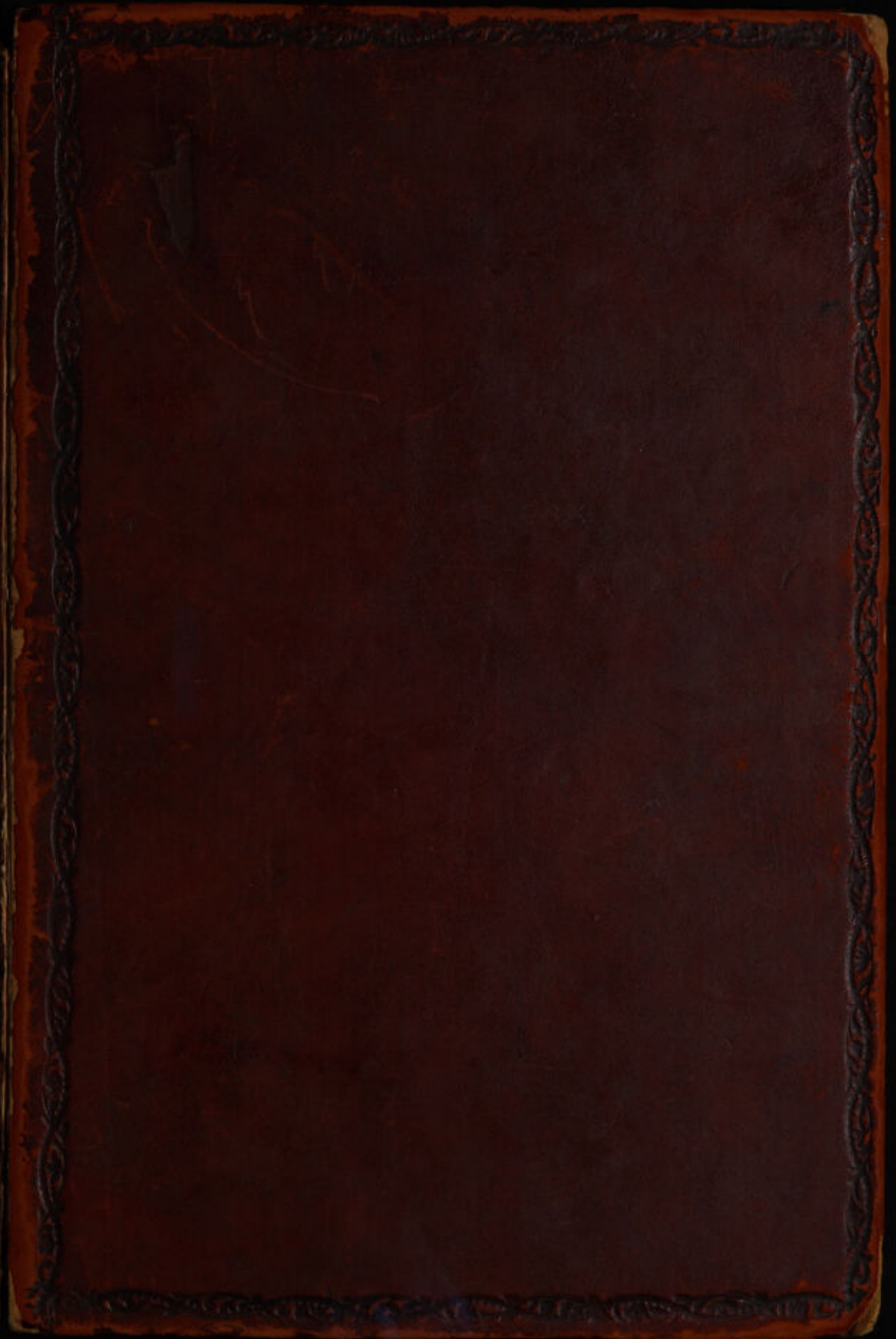
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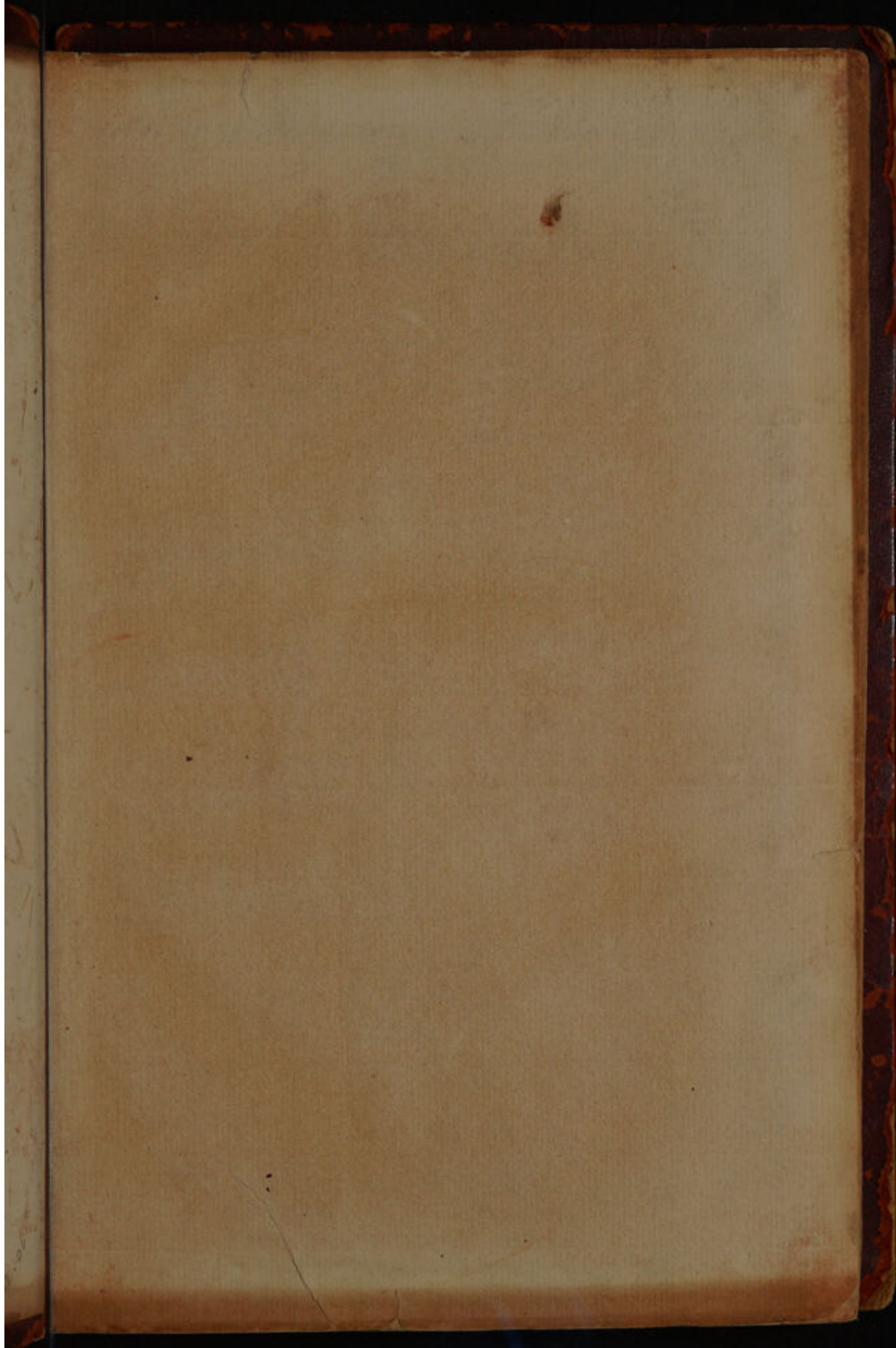
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T H E

Idea of Practical Physick

I N

TWELVE BOOKS.

V I Z.

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|---|-----|--|
| <p>1 <i>The Art to preserve Health.</i></p> <p>2 <i>Of the Preternatural Disorders of Mans Body, and their Signs.</i></p> <p>3 <i>Of Medicaments.</i></p> <p>4 <i>Of the Art of Healing.</i></p> <p>5 <i>Of the general Cure of Diseases.</i></p> <p>6 <i>Of External Diseases.</i></p> | } { | <p>7 <i>Of Feavers.</i></p> <p>8 <i>Of Head Diseases.</i></p> <p>9 <i>Of Middle-belly Diseases.</i></p> <p>10 <i>Of Lower-belly Diseases.</i></p> <p>11 <i>Of Venemous Diseases.</i></p> <p>12 <i>Of Childrens Diseases.</i></p> |
|---|-----|--|

These Twelve Books are of excellent Use for all yong Students in Physick. They contain the Marrow of all the Works of *Daniel Sennertus*, and *Fernelius*, and twenty five Physitians more, mentioned in the Authors Epistle. They are of so high esteem with many Learned Doctors of Physick, that they have been read by them to their Scholers, as the best extant in their kind. Written in Latin by *John Johnston*, Professor of Physick in the famous City of **FRANCFORT**. And Englished

By *Nich. Culpeper*, Gent. Student in Physick and Astrology.
And *W R.*

L O N D O N;

Printed by *Peter Cole*, Printer and Book-seller, at the Sign of the Printing-Press in Chornhil, near the Royal Exchange. 1657.

THE
 Ideas of Practical Physick
 IN
 TWELVE BOOKS

V. L. S. n. 67. 2. a. T.

<p>7 Of Fevers.</p> <p>8 Of Head Diseases.</p> <p>9 Of Middle-belly Diseases.</p> <p>10 Of Loos-belly Diseases.</p> <p>11 Of Venereal Diseases.</p> <p>12 Of Children Diseases.</p>	<p>1 The Art to preserve Health.</p> <p>2 Of the Periodical Disorders of Mans Body, and their Signs.</p> <p>3 Of Medicaments.</p> <p>4 Of the Art of Healing.</p> <p>5 Of the general Cure of Diseases.</p> <p>6 Of External Diseases.</p>
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I have Twelve Books are of excellent Use for all young Students in
 Physick. They contain the Method of all the Works of Daniel
 Sennertus, and sometimes, and several other Physicians more mentio-
 ned in the Authors Epistle. They are of so high esteem with ma-
 ny Learned Doctors of Physick, that they have been read by them
 to their Scholars, as the best extant in their kind. Written in La-
 tin by John Johnston, Professor of Physick in the famous City of
 FRANKFORT. And Englished

By Nich. Culpeper, Gent. Student in Physick and Astrology.
 And W. R.
 60/21 12/06

L O N D O N :

Printed by Peter Cole, Printer and Book-seller, at the Sign of
 the Printing-Press in Chancery, near the
 Royal Exchange. 1657.

The Printer to the Reader.

Courteous Reader,

Inding by Experience how hardly such Gentlemen as Study Physick in our Mother tongue, are induced to read with patience and consideration, the Speculative Rules of the said Art, both (as I conceive) because of the seeming difficulty thereof, compared to books of mere Practice, and because of the undue hast that the foresaid Gentlemen are wont to make to practice upon the sick, moved by Covetousness, Vain-glory, or I know not what other evil spirit; not knowing, or little considering, how much the Reading of some such good Book is necessary to enable a Man to Practice: By which unhappy error, they prove rather Empricks and Quacksalvers, than rational Physitians, which nevertheless they would willingly be thought to be; to remedy so great a mischeif, I have diligently sought (and at last by direction of my good Angel, found) such an Institution, so coupled with practice, and such a practice so walking hand in hand with an Institution, such a practical Institution and Institutional practice, and both in so cleare a Method, so witty and concise a stile, and furnished with such ample and delightful variety of al things any way concerning the contemplative or practical part of Physick; that I have al the Reason in the World to hope, the publication hereof wil prove an effectual Remedy to the foresaid very grievous malady; acquainting the mere English Physitian with such skil in the Theory of his Art, as he hath hitherto nau-seated to receive, from any thing yet published in our Language.

I need not spend time to praise our Author: this learned, ingenious, polite Piece of his, wil sufficiently do that, which he, being chose Professor of Physick in the far renowned City of Francfort, and not able to read his Lectures, because of some troubles there, did publish to supply that defect, as the best manuduction to young students into that noble Art. And it is become of so high esteeme beyond the Seas, that the learned Professor of Physick at Leiplich, Dr. John Micael did use to bring it up into his Pulpit, as his Physical Bible (if I may so say) out of which he daily read his text, and made Sermons of that Art to his admiring Disciples.

See the Authors own Epistle following the Catalogue of Books by me Printed.

What remains (Courteous Reader) but that thou meet my Endeavours for thy good, and the good of my Country, with a chearful Countenance and a joyful

B

Heart,

The Printer to the Reader.

Heart, and to take heed thou be none of those Fooles, Who have a price in their hand to get wisdom, but have no Heart to it; Prov. 17. 16. But I have better hopes of thee (Friendly Reader) though many such there are in the World. Farewel.

Thy Friend to Serve
thee, if thou please,

Peter Cole,

The Names of Books printed by Peter Cole, Printer and Book-seller of London: and are to be sold at his Shop, at the sign of the Printing-press in Cornhill, near the Royal Exchange.

Twelve new Books in one Volum of Nich. Culpeper, All called the Idea of Practical Physick.

- 1 The art to preserve Health.
- 2 The preternatural disorder of mans body, and their Signs.
- 3 Of Medicaments.
- 4 Of the art of Healing.
- 5 Of the general Cure of Diseases.
- 6 Of External Diseases.
- 7 Of Feavers.
- 8 Of Head Diseases.
- 9 Of milde Belly Diseases.
- 10 Of Lower belly Diseases.
- 11 Of Venomous Diseases.
- 12 Of Childrens Diseases.

Twenty seven Books of Nich. Culpeper, Gent. Students in Physick and Astrologie, formerly published.

The first seventeen Books. Are al called the *Practise of Physick*, Wherein is plainly set forth, The *Nature, Cause, Differences*, and several sorts of *Signs*; Together with the *Cure of al Diseases in the Body of Man*. Being a Translation of the Works of that Learned and Renowned Doctor, *Lazarus Riverius*, now living; Councillor and Physician 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 al the former Impressions wanted the *Nature, Causes, Signs, and Differences of the Diseases*, and had only the *Medicints for the cure* for them; as plainly appears by the Authors Epistle.

18. A Sure Guide to Physick and Surgery: That is to say, The Arts of Healing by Medicine, and Manual Operation. Being an Anatomical De-

scription of the whol body of Man, and its parts, with their Respective diseases, demonstrated from the Fabrick and use of the said Parts. In Six Books of *Riolanus*, translated, and adorned with an hundred eighty four Figures cut in Bras.

19 *Pessingus Anatomy of the Body of Man*, Wherein is exactly described, the several Parts of the Body of Man, illustrated with very many larger Bras Plates than ever was in English before.

20 A Translation of the *New Dispensatory*, made by the Colledge of Physicians of London. Whereunto is added *The Key to Galens Method of Physick*.

21 *The English Physician 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 al Herbs, both Vulgarly and Astrologically.

2 The way of drying, and keeping them and their Juices.

3 The way of making and keeping, al 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.

22 A *Directory for Midwives, or a Guide for Women*. Newly enlarged by the Author in every sheet, and illustrated with divers new Plates.

23 *Galens Art of Physick*, with a large Comment.

24 A New Method both of studying practising and Physick.

25 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. *Bates* and Dr. *Regemontius*, translated into English, And corrected by N. Culpeper.

26 Medicaments for the Poor, Or Physick for Common the People.

27 Health for the Rich and Poor, by Dyes without Physick.

Mr. Hookers New Books in three Volumes: One in *Octavo*, and two in *Quarto*.

These Eleven New Books of Mr. Thomas Hooker, made in New-England Are attested in an Epistle by Mr. Thomas Goodwin, and Mr. Philip Nye, To be written with the Authors Own hand: None being written by himself before. One Volum being a Comment upon Christs last Prayer in the Seventeenth of *John*; wherein is opened; The *Union* believers have with God and Christ, and the glorious Priviledges thereof. Besides many other Gospel Truths, there is also shewed.

1 That the end why the Saints receive al glorious Grace, is, That they may be one, as the Father and Christ are one.

2 That God the Father loveth the Faithful, as he loveth Jesus Christ.

3 That our Saviour desireth to have the Faithful in Heaven with himself.

4 That the happiness of our being in Heaven, is to see Christs Glory.

5 That there is much wanting in the knowledge of Gods Love, in the most able Saints.

6 That the Lord Christ lends daily direction, according to the daily need of

of his Servants.

- 7 That it is the desire, and endeavour of our Savior, that the dearest of Gods Love, which was bestowed on himself, should be given to his faithful Servants.
- 8 That our Union, and Communion with God in Christ, is the top of our happiness in Heaven.

The first eight Books: of the Application of Redemption, By the effectual Work of the Word, and Spirit of Christ, for the bringing home of lost Sinners to God. In which (besides many other seasonable, and Soul-searching Truths) there is also largely shewed.

- 1 Christ hath purchased all spiritual good for HIS.
- 2 Christ puts all HIS into possession of all that good that he hath purchased.
- 3 The Soul must be fitted for Christ before it can receive him: And a powerful Ministry is the ordinary means to prepare the heart for Christ.
- 4 The work of God is free: And the day of Salvation, is while this Life lasts, and the Gospel continue.
- 5 God calls his Elect at any Age, but the most before old Age.
- 6 The Soul is naturally settled in a sinful security.
- 7 The heart of a Natural man is wholly unwilling to submit to the word that would sever him from his sins.
- 8 God the Father by a holy kind of violence, plucks His out of their corruptions, and draws them to believe in Christ.

The Ninth and Tenth Books of the Application of Redemption by the Effectual Work of the Word, and Spirit of Christ, for the bringing home of lost sinners to God. Besides many other seasonable, and Soul-searching Truths, there is also largely shewed.

- 1 The heart must be humble and contrite before the Lord will dwell in it.
- 2 Stubborn, and bloody sinners may be made broken-hearted.
- 3 There must be true sight of sin, before the heart can be broken for it.
- 4 Application of special sins by the Ministry, is a means to bring men to sight of, and sorrow for them.
- 5 Meditation of sin, a special means to break the heart.
- 6 The same word is profitable to some, not to another.
- 7 The Lord sometimes makes the word profitable most, when its most opposed.
- 8 Sins unrepented of, makes way for piercing Terrors.

9 The Truth terrible to a guilty conscience.

- 10 Gross and scandalous sinners, God usually exerciseth with heavy breakings of heart, before they be brought to Christ.
 - 11 Sorrow for sin rightly set on, pierceth the heart of the sinner thoroughly.
 - 12 They whose hearts are pierced by the word, are carried with love and respect to the Ministers of it: And are busie to enquire, and ready to submit to the mind of God.
 - 13 Sinners in distress of conscience, are ignorant what they should do.
 - 14 A contrite sinner sees a necessity of coming out of his sinful condition.
 - 15 There is a secret hope wherewith the Lord supports the hearts of contrite sinners.
 - 16 They who are truly pierced for their sins, do prize and covet deliverance from their sins.
 - 17 True contrition is accompanied with confession of sin, when God calls thereunto.
 - 18 The Soul that is pierced for sin, is carried with a resolute dislike against it.
- Six Books more of Mr. Hookers in two Volumes in Quarto, are printing.

Twenty one several Books of Mr. William Bridge, Collected into two Volumes. Viz.

- 1 Scripture Light the most sure Light: compared with, 1. Revelations & Visions. 2. Natural & Supernatural Dreams. 3. Impressions with, and without Word. 4. Light and Law within. 5. Divine Providence. 6. Christian Experience. 7. Humane Reason. 8. Judicial Astrology. Delivered in Sermons, on 2 Pet. 1. 19.
 - 2 Christ in Travels: Wherein, 1. The Travel of his soul. 2. The first and after effects of his Death. 3. His Assurance of Issue. 4. And his satisfaction therein. Are opened and cleared in Sermons, on Isa. 53. 11.
 - 3 A Lifting up for the Call-down, in case of, 1. Great sin. 2. Weakness of Grace. 3. Miscarriage of Duties. 4. Want of Assurance. 5. Affliction. 6. Temptation. 7. Discretion. 8. Unserviceableness. 9. Discouragements from the Condition it self. Delivered in thirteen Sermons, on Psalm, 42. 22.
- His Four Sermons concerning,
- 4 Sin against the Holy Ghost.
 - 5 Sins of Inimicitie.
 - 6 The false Apostle cried and discovered.
 - 7 The good and means of Establishment.
 - 8 The great things Faith can do.
 - 9 The great things Faith can suffer.

10 The Great Gospel Mystery of the Saints Comfort and Holiness, opened and applied from Christs Priestly Office.

- 11 Satans power to Tempt, and Christs Love to, and Care of his People under Temptation.
- 12 Thankfulness required in every Condition.
- 13 Grace for Grace.
- 14 The Spiritual Actings of Faith through Natural Impossibilities.
- 15 Evangelical Repentance.
- 16 The Spiritual Life, &c.
- 17 The Woman of Canaan.
- 18 The Saints Hiding-place, &c.
- 19 Christs Coming, &c.
- 20 A Vindication of Gospel Ordinances.
- 21 Grace and Love beyond Gifts.

Twelve Books of Mr. Jeremiah Burroughs lately published; also the Texts of Scripture upon which they are grounded.

- 1 Gospel Reconciliation, Or Christs Trumpet of Peace to the World. Wherein is Opened Gods exceeding willingness to be Reconciled to Man; And Gods sending his Embassadors to that End. From 2 Cor. 5. 19, 20, 21.
- 2 The Rare Jewel of Christian Contentment, on Phil. 4. 11. Wherein is shewed, 1. What Contentment is. 2. It is an Holy art and Mystery. 3. The Excellencies of it. 4. The Evil of the contrary sin of Muzzing, and the Aggravations of it.
- 3 Gospel-worship, on Levit. 10. 3. Wherein is shewed, 1. The right manner of the Worship of God in General; And particularly, in hearing the Word, Receiving the Lords supper, & prayer.
- 4 Gospel-conversation, on Phil. 1. 17. Wherein is shewed, 1. That the Conversations of Believers 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.
- 5 A Treatise of Earthly-mindedness: Wherein is shewed, 1. What Earthly-mindedness is. 2. The great Evil thereof, on Phil. 3. part of the 19. verse. Also to the same Book is joyned, A Treatise of Heavenly-mindedness, and walking with God, on Gen. 5. 24. and on Phil. 3. 20.
- 6 An Exposition on the fourth, fifth, sixth, and seventh Chapters of the Prophecie of Hosea.
- 7 An Exposition on the eighth, ninth, and tenth Chapters of Hosea.
- 8 An Exposition on the eleventh, twelfth,

twelfth, and thirteenth Chapters of *Hosea*, being now compleat.

9 The *Evil of Evils*, or the exceeding sinfulness of sin, on *Job* 16. 21.

10 Precious Faith, on *2 Pet.* 1. 7.

11 Of Hope, on *1 John* 3. 3.

12 Of Walking by Faith, on *2 Cor.* 5. 7.

Mr. *Burroughs* his fifty nine Sermons on *Matth.* 11. 28, 29, 30. Are Printing

A Godly and Fruitful Exposition, on the first Epistle of *Peter*. By Mr. *John Rogers*, Minister of the word of God at *Dedham* in *Essex*.

Mr. *Rogers* on *Naaman* the Syrian, his Disease and Cure: Discovering the Leprosie of Sin and Self-love; with the Cure, viz. Self-denial and Faith.

Mr. *Rogers* his Treatise of Marriage.

The Wonders of the Loadstone. By *Samuel Ward* of *Ipswich*.

An Exposition on the Gospel of the Evangelist *St. Matthew*. By Mr. *Ward*.

The Discipline of the Church in *New-England*: By the Churches and Synod there.

The *London Dispensatory* in Folio, of a large Character in Latine.

The *London Dispensatory* in twelves, a small Pocket Book in Latine.

Pious Mans Practice in Parliament time.

Barriſſ's Military Discipline.

The Immortality of Mans Soul.

The Anatomist Anatomized.

The Bishop of *Canterbury*'s Speech on the Scaffold.

The King's Speech on the Scaffold.

A Looking-Glass for the Anabaptists.

Woodwards Sacred Ballance.

Dr. *Owen* against Mr. *Barter*.

King *Charls* his Case, or an Appeal to all Rational men concerning his tryal.

Mr. *Brightman* on the Revelation.

Clows Chyrurgery.

Marks of Salvation.

Christians Engagement for the Gospel, by *John Goodwin*.

Great Church Ordinance of Baptism Mr. *Loves* Case, containing his Petitions, Narrative, and Speech.

A Congregational Church is a Catholick Visible Church. By *Samuel Stone* in *New-England*.

A Treatise of Politick Powers, wherein seven Questions are answered,

1 Whereof Power is made, and for what ordained. 2 Whether Kings and Governors have an Absolute Power over the People. 3 Whither Kings and Governors be subject to the Laws of God, or the Laws of their Country. 4 How far the People are to obey their Governors. 5 Whether all the People have, be their Governors. 6 Whether it be Lawful to depose an evil Governot. 7 What Confidence is to be given to Princes.

The Compassionate Samaritan.

Dr. *Sibbs* on the Philippians.

Vox Pacifica, or a Perswasive to Peace.

Dr. *Preslons* Saints submission, and Satans Overthrow.

A Relation of the Barbadoes.

A Relation of the Repentance and Conversion of the Indians in *New-England*: by Mr. *Eliot*, and Mr. *Meybew*.

Six Sermons preached by Dr. *Hill*. Viz.

1 The Beauty and Sweetness of an Olive Branch of Peace, and Brotherly

Accommodation budding.

2 Truth and Love happily married in the Church of Christ.

3 The Spring of strengthening Grace in the Rock of Ages Christ Iesus.

4 The strength of the Saints to make Iesus Christ their strength.

5 The Best and Worst of *Paul*.

6 Gods Eternal preparation for his Dying Saints.

A Commemoration of King *Charls* his Inauguration. In a Sermon, By *William Laud*, then Bishop of *Canterbury*.

Abrahams Offer, Gods Offering: Being a Sermon by Mr. *Herle*, before the Lord Major of *London*.

Mr. *Spurstows* Sermon, being a Pattern of Repentance.

Englands Deliverance from the Northern Presbitery, compared with its Deliverance from the Roman Papicy. In a Sermon on the 5 of *Nov.* 1651. before the Parliament. By *Peter Sterry*.

The Way of God with his People in these Nations. Opened in a Thanksgiving Sermon, preached on the 5 of *Novemb.* 1656. before the Right Honorable, the High Court of Parliament. By *Peter Sterry*.

Mr. *Symphons* Sermon at *Westminster*

Mr. *Feaks* Sermon before the Lord Major.

The Best and Worst Magistrate. By *Obadiab Sedgwick*. A Sermon.

A Sacred Panegyrick. By *Stephen Martiat*. A Sermon.

The Craft and Cruelty of the Churches Adversaries. By *Matthew Newcomin*. A Sermon.

The Magistrates Support and Burden. By Mr. *John Cordel*. A Sermon.

Mr. *Owens* stedfastness of the Promises. A Sermon.

Mr. *Phillips* Treatise of Hell.

— of Christs Genealogy.

The Cause of our Divisions discovered, and the Cure propounded.



THE Authors Preface to the Reader.

Three things there are (Studious Reader) which I am to inform thee of in this Preface: viz. of the Cause of my writing this Book; of the Structure or manner of its Fabrick; and of its use.

The Authors Preface to the Reader.

use. I took this pains long since, only for my own private occasions; and now my being called to be publick Professor of Physick in the University of *Francfort*, is the Cause that it appears upon the publick Stage of the world. For, seeing the Injuriousness of the times would not suffer unto me to make it appear how much I valued my Call to that Profession, and what ardent desire I had to advance the Studies of young Learners, by publick teaching; I have done both in this Book. Hereunto were added the earnest desires of certaine friends, who assured me great good would redound to young students of Physick by the publication thereof; and that though *Trincavellus*, *Fernelius*, *Pernumia*, *Petræus*, *Bruel*, *Zacutus*, had done excellently wel; yet that some of them being over brief did not meddle with the method of Cureing; others made little or no mention of the Prognostick signs; others were taken up with disquisitions; and some of them did not meddle with many diseases. Moreover, they warned me not to suffer my self to be terrified with any feare of detractions or calumnies. That such as were void of all vertue themselves, did render themselves infamously famous among such as themselves, by detracting from others. That envious persons void of like good themselves, did prostitute their own fame by gnawing upon the glory of others, &c. Touching the *Structure*, understand in short, it was my desire to bring into a smal compass, the Brief delination of al diseases in a manner, with their signs, causes, differences, and Cure; that the diligence of the forenamed Authors might be joined hereunto. Among Diseases I thought fit to put *external ones* in the first place, both because tis fit to begin with such things as are best known to sence: and because tis thought the first practice of Physick that ever was, was conversant about them. *Chiron* is reckoned to have been the first Physitian that ever was, and had his name from the most excellent skil in Chyrurgery. I have marshalled the Signs before the Causes, that I might also fit the natural method of humane Conception, in the finding out of things, when this or that symptom is related, I enquire into other signs. The disease being known, I proceed to the variety of Causes. I have endeavored to reduce al to the Differences, both that the disease might be thereby more exactly known, and the diversity of the Cure more accurately expressed. If you shal ask what *Authors* I follow? you may please to take notice, that I did long since Collect this Introduction to the Practice of Physick, out of the Volums of *Daniel Sennertus*, that most

The Authors Preface to the Reader.

renowned Physitian; whose method and order I do now also, well
neare in al things, follow. With him I have compared, *Fernelius, Joël,*
Capivaccius, Liddelius, Aquapendens, Petrus, Ferdinandus, Fabricius,
Martinus, Collutius, Fracastorius, Fallopius, Quercetanus, Zacutus Lu-
sitanus, Crucius, Platerus, Septalius, Heurnius, Ferrandus, Hochstet-
terus, Nutzerus, Mynsichtus, Beckerus, Hart-mannus, Stockerus, and
others; al which you shal find cited in their places. As for Medi-
caments, I have set down those which I have found most highly
commended, by the best Physitians. Nor have I concealed such as
in my Travels I have obtained from certain brave men, nor such as I
found in the Study of *Mattheus Vechnerus* of blessed memory, cheife
Physitian to the King, and my Father in Law; such a Physitian, as
this Country of ours has hardly afforded his equal, and (which makes
most of al to his praise) a man void of Dissimulation, Boasting, and
pompous haughtyness of mind. And many times I have only poin-
ted at the Medicaments by naming them and their Authors, that I
might thereby provoke young Students to read the said Authors;
and least that if I should have set them down at large, young persons
would have abused them by a dangerous presumption. Concern-
ing the Use, what it is, and when the student is to employ the same,
I shal now speak. As to the former, you have here an Introduction
into those vast works of *Saxonia, Mercatus, Massaria, Capivaccius, Radius,*
Sennertus, touching the diseases of Mans body. This work wil serve
instead of a book of common-places, into which al that a man reads,
may be referred, as to an Index; whether they be such things as I
have not touched, or serving to correct some error (for I beleeve I
may easily have erred) enlargement, or clearing up of what is said. As
to the latter, the student of Physick is first to be wel read in the Specu-
lative Rules of the Art before he Practise. Also he is to have skil in
the Nature of Plants, Minerals, Anatomy, and Chimistry. And
this is that which I thought fit to acquaint thee with, Studious
Reader.

Farewel.

THE



THE
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OF ALL THE
TWELVE BOOKS
OF THE
Idea of Practical Physick.

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BOOK II.

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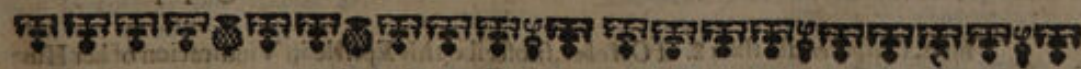
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Mrs:



of the Office of a Physician

Mris. Culpepers Information, Vindication, and
Testimony, concerning her Husbands Books
to be Published after his Death.

So great are the Afflictions
wherewith our Heavenly
Father hath been pleased to
exercise me his poor Hand-
maid, that I have not only
loved to see my dear Hus-
band, (the Stay and Solace
of my Life) taken from me;
but it hath been my hap
also to see his Reputation, and Memory (which will
be dear to all Posterity, for the works he hath written
for the Common Good of this Nation) blemished, and
eclipsed, by the covetous and unjust Forgeries of
one, who, though he calls himself Nathaniel, is far
from being an Israelite in whom there is no guile;
who was not content to publish a Hedgepodge of un-
authenticated Collections, and Observations of my dear
Husband deceased, under the Title of Culpeper's last
Legacy; but to make the Deceit more taking, he
stamped his Forehead so far, and brased it so hard,
as not to be ashamed to forge two Epistles, one in
mine, and the other in my Husbands Name; of the
publishing of which, he nor I, never so much as dream-
ed: And yet he impudently affirmeth in my Name,
that my Husband Laid a severe Injunction on me to
publish them for the general good, after his decease;
and that they are his last Experiences in Physick and
Chyrurgery. And in the Title of his Book, he said,
They are the choicest, and most profitable secrets,
received never to be published till after his Death. All
which Expressions in the Title and Epistles, are as
false as the Fethy of Lye; and every word in them,
forged and feigned. And he knowes well enough, that
no discreet, honest man, that was a friend to my
Husband, or me, would ever have agreed to such
dishonest and dishonest practices; and therefore I
desire all Covetous Readers of the writings of my
Husband, to take notice of this Deceit, and to assure
themselves that it never entered into his head, to
publish such an indigested Gallinostery, under the
promising and solemn Name of his Last Legacy, and
that whereby he gained his Reputation in the
World, as the Imposter makes him speak in his
forged Epistle. And I desire any indifferent Reader,
that hath observed my Husbands loose, and Mascu-
line manner of expressing himself in his Prefaces, and
Epistles Dedicatory, whether in case he had been
minded or disposed to take so solemn a farewell
of the world, as the Forger makes him to do; whether,

I say, he would have done it in such a whining
fashion, and so in the stile of a Brigade-maker, as I
say, And now, if it please Heaven to put a period
to my Life, and Studies, that I must bid all things
under the Sun farewell: Farewell to my dear Wife
and Child, farewell Arts and Sciences, farewell all
worldly Glories, adieu Readers. Certainly my Hus-
band would have been far more serious, and materi-
al, in such a case, as any discreet man will Judge.
Neither can it be thought, that in such a solemn
Valediction, he could possibly forget his wonted re-
spects to the Colledge of Doctors, to whom he did so
frequently address himself, in divers of his writings.
Courteous Reader, I shall say no more touching the
abuse of the Book-seller, only to prevent (as much
as concerns me) thy being abused for the future,
know, That my Husband left seventy-nine Books of
his own making, or Transcribing, in my hand, and I
have deposited them into the hands of his, and my
much honored Friend, Mr. Peter Cole, Book-seller,
at the Printing-Presse, near the Royal Exchange
(for the good of my Child) from whom thou mayst
expect to receive in print, such of them as shall be
thought fit to serve thee in due season, without any
Disguise or Forgery, unto which I do hereby give
my attestation. Also my Husband left seventeen Books
completely perfected, in the hands of the said Mr.
Cole, for which he paid my Husband in his life-time:
And Mr. Cole is ready and willing (on any good oc-
casion) to shew any of the said seventy-nine Books,
or the seventeen, to such as doubt thereof.
And if any Person shall question the Truth of any
part of this Vindication, or Epistle; if they will
take pains to come to me, I will sake to face, justify the
truth of every word thereof, as I have subscribed my
Hand thereto in the presence of many witnesses.
I protest in the presence of the great God, the star-
cher of all hearts, before whom Mr. Brooks and I
must one day give an account of all our Actions:
That I have not published this Epistle or Vindicati-
on, out of any disrespect to Mr. Brooks (for I much
respect the man, and would be glad to serve him to
my power) but only to clear my Husband from the
folly and weakness cast upon him by the means above
expressed. And out of tenderness to Mr. Brooks,
I first tried other means of keeping, and afterwards
of repairing my Husbands Credit, and then stayed
long to see if he would repair (in any measure) the
wrong done to my Husband, and my self. I desire to be,

From my House, next door to the
Red Lyon in Spittle-fields,
October, 18. 1655.

Your Servant (in,
and for the Truth)
Alice Culpeper.

Mris. Culpeper did the 18. of October, subscribe this Epistle in Vindication of her Hus-
band's Reputation, before Ten Witnesses, as she had done another Epistle on the
ninth of October, almost in the same words with this, except near the Conclusion.

These Books following are to be sold by PHILEMON
STEPHENS at the Gilded Lion in Pauls Church yard.

- 1 **C**oncilia, Decreta, Leges, Constitutiones de Re Ecclesiarum orbis Britannici ab initio Christianæ ibidem in gionis cum annotationibus non minus pijs. quam doctis. opus Antiquitatis studiosis app. ime gratum & utile à *Hen. Spelman* Equitis. Fol.
- 2 Glossarium eruditissimum: in quo præfci Ritus quam plurimi enarrantur à *Hen. Spelman*. Fol.
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- 4 Tythes too hot to be touched, certain learned Treatises, proving Tythes to be due, by the lawes of Nature, Scripture, and Reason, therefore neither Jewish, Popish, nor inconvenient, written by *Sir Hen. Spelman*. 40
- 5 Psalterium Davidis Latino-Saxonicum, à *J. Spelmanno* Hen. F. è patris Bibliotheca in lucem editum, ubi ad finem uniuscujusq; Psalmi preces optime in animum psalmi reperuntur. 40
- 6 The Best Religion, or certain learned Treatises and Sermons, wherein is largely explained the sum and principal heads of the Gospel, by *Dr. Gr. Williams*.
- 7 A Commentary, or exposition on the Proverbs of *K. Solomon*, where the literal sense is chiefly considered, the Originall Hebrew Texts, our English Translations, and Classicall Authours are examined and considered by *Michael Jermin*, Dr. in Divinity. Fol.
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- 89 The Strong-Helper, offering to bear every mans burthen, shewing how in all troubles to cast our burthen on God, with infallible grounds of comfort for the quieting of troubled consciences, by *Jo. Haiward*. 8
- 90 A Commentary upon the XII Minor Prophets, wherein the Text is explained some Controversies discussed, sundry Cases of Conscience cleared, and many remarkable matters handled that had by former Interpreters been pretermitted. Hereunto is added the Righteous Mans Recompence, or a true Christian Characterized and encouraged; out of *Malaichi* Chap. 3. vers. 16, 17, 18. by *John Trapp* of Weston upon Avon in Gloucester-shire.



THE
 FIRST BOOK
 OF THE
 IDEAS
 OF
 PRACTICAL PHYSICK:

Of that part thereof which we call Hygiene.

Title I. *Of things not Natural, in General.*

Hygiene is a part of practical Physick prescribing the means and way of preserving and maintaining the Health, by the use of things not Natural.

Things not Natural we call those, which albeit they are to be accounted and reckoned in the number of things Natural; yea, and moreover as such that are necessarily required both to defend and preserve the health while it is enjoyed, and likewise to restore and recover it when absent and lost; yet notwithstanding they do not any way constitute either the Essence; or the Nature of the body whilst it lives; but on the other side often affect and disturb the Body of Man, and impair the health thereof. From whence it is that some have distinguished and reduced them under

these two Heads, viz. of things healthful, and unhealthful.

The Prescription is spoken to, and completed in two parts. The former whereof enumerates and recounts those things that are not Naturall; and declareth in what manner they affect Mans body. They commonly call this part, *Dietetical*, in reference unto the diet that is observed. The other openeth the Method of preserving the health, by shewing us the way and means how we may to use these things not natural, that they may not, in the least hurt or offend our bodies.

Of Things not natural there are four ranks or Classes. The first containeth those things that are taken and received into the Body. The second, those things in and about which the body is exercised. The third, such things as happen unto the body from without. The fourth and last comprehends those things that are voided forth of the body, to wit, the Excrements.

Chap. 1. *Touching things not Natural, that are assumed, or taken into the Body.*

Article, 1. *Of the Aire.*

Things not Naturall that are received into the body, are *Air, Meat, and drink.*

Air is a thing not natural, surrounding or encompassing the body of Man, and insinuating it self into it by certain pores and passages.

Touching this Air there are four things observable. First, that it is necessary to the very being of Health. Secondly, That it affects mans body. Thirdly, That there are many differences thereof. Fourthly, That it is subject and Liable unto divers changes and alterations.

And first of al, *That it is necessary and requisite unto the very being and preservation of health,* (yea indeed so far forth necessary, that if any one intercept the said passages of the Air into the body, it unavoidably perisheth in a moment or very short time) appeareth even from hence, to wit, that unless the heart should be cooled, and unless that the Internal fire or heat should be ventilated and excited, and lastly, unless the spirits should continually be refreshed and revived, a man could not possibly put forth, or exercise his Actions. Now the Air is therefore attracted by the Lungs, that it may qualify and temper the overgreat heat of the Heart. The same Air likewise by its motion (as it were with a Fan) ventilates & cooles the internal hear, so that it not only becomes more moderate, but is also thereby excited and stirred up. And lastly, the same foresaid Air being from without attracted inwardly by the rough Arteries (usually termed *asperæ*) and first of al prepared and wrought upon in the very flesh of the Lunges, and next of al in the Heart and Arteries (those of them more especially that are in the Netlike folding (we commonly cal it *plexus retiformis*) and last of al (most perfectly and exquisitely) in the ventricles of the Brain, by its substance, generateth and produceth spirits.

Secondly, *It Affects the Body of Man after a twofold manner.* First, as it surrounds it either naked or clothed. Secondly, As it insinuates it self into the same, whether it be by inspiration, which is done either by the Mouth according to the taking in and putting forth of the breath; or by the Arteries, according to

their dilatation and compression: or otherwise by Transpiration, which is performed al the skin throughout, and in each part thereof by those exceeding smal passages (not unlike unto those of a very fine sieve) which the Greeks cal *Porous*, the Latines, *poros*; we in English pores.

Thirdly, *It derives its differences from the quantity, quallity, and substance thereof.* I. In respect of its *Quantity*, it is copious, scant, ful, which last *Hippocrates* (in his tract of breathings or blasts) cal *atbrooteron*, that is to say, al at once and speedily breaking in upon us. II. In regard of its *Quality*, 1. *Hot*, and this augments the cholor, melts away the humors, weakens and hinders Concoction; and consequently by dissipating the Native heat it very much shortens the life. 2. *Cold*, which by shutting the pores or passages of the skin, and so hindering perspiration, excites putrid Feavers, or else by compression causeth destillations, forceth the Blood oftentimes out of the Veins, from whence proceed inflamations; and then it extremly hardneth whatsoever is in the belly. 3. *More than ordinarily moist*, which heapeth up together flegm and store of Crudities. 4. *Over dry*, which (its true) waists and consumes the superfluous humors; but again it breeds acute feavers through the abundant increase of sharp humors; and it likewise exceedingly dryeth the skin. 5. *Corrupt*, whether overmuch exceeds in the first qualities, or else is rendered impure by reason of vapors arising from Lakes, standing waters, fenny and Moorish places; or else such as cannot be cleaned and purified by the through blasts of the wind. 6. That which is the best, which is *temperate in the first qualities*, pure, subject to no infection or pollution, serene, clear, sweetly and gently stirred to and fro by frequent blasts and gentle gales of winds, and which is oftentimes moystened with wholesom and healthful showers of rain. III. In relation to its *substance*, it is, 1. *Thick*, which for the most part intercepts the very light, and hinders the prospect, so that either we cannot at al discern the stars, or if we do, they appear unto us much less than at other times, or at least as much darkned and overcast. 2. *Troubled or tempestuous*, which hath divers of its thicker parts, (as it were made up of their moisture) violently hurried amidst the serene and cleer, by turbulent and tempestuous winds. 3. *Thin*, which is contrary to the former, transparent, serene, free from vapors, and throughly cleaned by the thorough blasts of winds

Winds. 4. Putrid and rotten, whether it be that it putrefie of its own accord, as wanting ventilation, (as for instance) that which is on every side shut up, and as it were imprisoned by high Mountains, or else that it becomes corrupted from some other cause, as suppose, from the Heavens, the Stars, the Winds blowing from infected places, or from some noysome pestilent vapor, &c. 5. Healthful and wholesome, which hath its original and its whole constitution from and under benign and healthy Climats, is stirred and driven to and fro by wholesome Winds, and is not in the least vitiated or corrupted by the vapors that proceed from any putrid and impure, whether things or places.

Fourthly, The Air taketh its *mutations* or Changes (which *Galen* calls Alteration according to the Constitution) from these ten things more especially.

First, From the Stars and Constellations; for both the Planets, and likewise the fixed Stars have in them much of power and influence upon these inferior Bodies. Concerning the influences of the former, we may at large read in *Porphyrius*, in the fourth Chap. of his paraphrase upon the Books of *Ptolomy*, as touching the effects of the stars. And *Hippocrates* writes that most Women conceive at the full of the Moon, Touching the latter, to wit, the fixed stars, it is easily to be seen, and manifestly perceived even in the lesser Dog-star alone, the *Pleiades* & *Arcturus*. For upon the rising of the Dog-Star the Seas grow tempestuous & fluctuating, Wines work afresh and fluctuate in the Cellers, Dogs run mad, and the like. At the setting of *Pleiades*, great Tempests and North-east Winds arise; and upon the setting of *Arcturus*, storms and Hail.

Secondly, From the different times of the year, as well the greater, which by the Physicians (in regard that they have in them the reason of the greatest changes and alterations proceeding from the rising and setting of the Stars of the first magnitude) are comprehended under a septenary or seven fold number; and are commonly reduced unto the Spring, Summer, Autumn, and Winter; as the lesser, to wit, Monthes, Weeks, and Daies. For the Spring is hot and moist. The Summer hot and dry. The Autumn cold and dry. The Winter cold and moist. The Qualities of the Monthes ought to be taken from the sign of the Zodiack that rules, and hath as it were a sovereign power in them. The qualities of the Weeks are derived from the Quarters of the

Moon; of which the first is moist, the second hot, the third dry, the fourth cold. The qualities of the daies from the parts thereof; of which the Morning part is in a manner spring-like, the Noon part like unto the Summer, the Evening thereof resembling the Autumn, and the night not unlike unto the Winter: howbeit there is in this but little of weight or moment, and therefore not much regard to be had thereunto.

Thirdly, From the Winds, and those as well common, (of the which some are Anniversary, as keeping their course at one certain time every year; as for instance, those we call *Chebidonia*, *Etesia*, and *Prodrumi*, which two latter are Winds blowing out of the East yearly, at one certain time, and rising out of ground eight daies before the rising of the Dog-star) others that appertain, and are more usual in some Regions than in other (whether they be from the Earth, or from the Sea:) as proper; such as is that Wind which they call *Chenerona*, unto those that live neer unto the river *Phasis* in *Cholchis*, *Atabulus* unto the *Apulians*, *Garbas* (a south east Wind) unto the *Sicilians*, *Japix* unto the *Calabrians*, &c. And there take notice, 1. That all Winds whatever do in their own Nature moisten and refrigerate. 2. That they assume a different temperament (this or that) according to the situation and condition of those places through which they blow. 3. That of the Septentrinal or Northerly Winds, (when they blow strong) that which we call *Boreas* (being a full North Wind) is the most vehement: those that blow at the half point are next unto it; of those that are Collateral, it is to be observed that *Boreas* is more warm and moist than the Easterly wind *Subsolanus*: and likewise that *Boreas* is more cloudy than the West Wind *Favonius*. 4. Of the Oriental Winds, which moderately heat and dry, when they blow from the Earth even these (when they rise from the Sea) do moisten. That called *Eurus*, which blows from the East in the Winter season, receives somewhat of the nature of *Auster* or the South Wind; & *Cacaas*, that blows from the East in the Summer season, retaineth something of the Boreal or Northern Winds, & is stiled the Gatherer and driver together of the Clouds. Unto the Easterly Wind *Subsolanus* (that blows from the East at the Equinoctial, that agreeth (and may be said thereof) which hath been said of the Winds in general. 5. The Occidental or Westerly Winds are moderately cold and moist. But in *Vasconia* they are so

hurtful and dangerous, that they seldom or never bluster there, without causing dread and terror unto the Inhabitants thereof. 6. The Meridional or Southerly Winds are Watrish, Cloudy, and such as cause all sorts of Diseases: yet notwithstanding, that which we call *Phenix*, is less harmful than the *Libonotus*, in regard of its neer approach unto the *Subsolamies*. See (at large and accurately discoursing of these) *Berulam*, and *Frederick Bonaventure*.

Fourthly, *From the other Meteors*. For these Meteors, if they be pure, such as are the burning and flaming torches, the Arrows, Flying Dragons, they produce and cause Fire, and immediate Heat and Dryness of the Air, that I may speak nothing of their pestilent corrupting Quality. If they be impure, such as are the Comets, Thunders, Lightnings, they cause droughts, Pestilences, Barrennesses, Floods, excessive Heats, &c. What power there is in the Aereal Meteors, and what they can do, hath been declared before in their proper place: Let it suffice therefore to have added this one only thing, to wit, that Plagues and Pestilences are wont to arise, and follow upon great Earth-quakes: concerning which, see *Seneca*, in his sixth B. 11. quest. Chap. 27 and 28. Of the Watry Meteors, Rains if they be of long continuance, they most commonly bring in and cause the putrefaction of the Air. The Dew if it be more frequent than ordinary, generats hurtful and destructive smal Worms. Frost discoloreth the buds of Vines, and the Ears of Corn, and maketh them to look black. Snow maketh the Air thick and gross. Touching these, Consult *Fromondus*, *Keckerman*, and above all *Cabeus*.

Fifthly, *From the Zones*, of the which therefore one is called the *Torrid*, another the *Frigid*, and a third the *Temperate Zone*. As for Regions of the *Torrid Zone*, by reason of their excessive heat, the Ancients thought them to be uninhabitable: but we have known the Contrary; and have found them (in regard of equality of the Nights with the Days, the frequent falling of showers, the situation of the several parts and places therein distinguished by Vales and Mountains, the nearness of the Ocean unto them, & lastly the gales of Wind that sweetly and gently blow as well at some certain and constant seasons, as at other times extraordinary) to be very Commodious and fit for habitation. The *Hollanders* have discovered and learn'd the state and condition of the

Frigid Zone, when as they sought out a passage into *Catbaia* thorow the *Icie Ocean*.

Sixthly, *From the Climates*, which are nothing else but the spaces of the Earthly Globe between two Paralels towards one and the same Pole, distinguishing Regions one from the other (in reference to their distance from the *Aequator*) by the space of half an hour in a day, albeit that this difference is not perceptible, or at least not easily discerned, in those Climates that lie and approach more nigh unto the Pole: of all which Climates, the seventh, that runs thorow *Venice* and *Milain* between the twelfth and fourteenth Paralel, is held to be the most temperate: yet not because it is not subject and liable unto any excess or mutation; but in regard that it admits not of such exceeding great Vicissitudes & changes, if we compare them with the Tempests of the extreme Regions. And yet notwithstanding a due respect and special regard is to be had unto the proper situation of each particular Region, because of the general light and position of the places.

Seventhly, *From those Regions of the World* that are called the *Cardinal Regions*. For the *Oriental Regions* are indifferently temperate; and they have clear and pure waters, of a sweet smell; and the inhabitants thereof are well favoured, sound, and their Women very fruitful. On the contrary, the *Occidental Regions* are extreme sickly and unhealthful; they have thick and muddy waters, and the people thereof are of an ill color. The *Meridional or Southerly Regions* abound with store of waters somewhat salt, sublime, and they that inhabit in them are evermore subject to moist heads, and obnoxious to a flux or looseness of the Belly. The *Setentrional or Northern Regions* have their waters harsh and cold; the people thereof are dry, long-liv'd, and of a tall stature. The *Oriental Regions* are more healthy than the *Occidental*, as well because the Sun in its vigor dissolveth those moist vapors that it drew up at the rising thereof; as also in regard that it doth not only not dissolve those which at the day it hurrieth along with it self towards the West, but likewise that it excites and stirs up many more vapors in the West, and so leaveth them; as also because that there many more vapors drawn up in the occidental, than there are in the Oriental part of the World, in regard that there are in the West far more and (those) far greater Seas, than in the East.

Eighthly, *From the parts of the World, Kingdoms,*

Kingdoms and Provinces. For it often comes to pass, even from the very situation of several places, that those which are accounted wholesome and healthful unto one certain place, are found to be baneful unto another part. So the cold north-east wind is unto the Europeans most serene and clear, but in *Libian* region it is exceeding cloudy; and again the south wind is unto those *Lybians* very hurtful, and so is the south west wind unto the *Bascomians* very pernicious, but on the other side very grateful and welcom unto the *Gretians* and *Italians*.

Ninthly, From *Cities and houses.* And hence it was that the *Caunians* (a people in *Cavia*) through the default of the Air there, became so wan and pale, that there was one heard to say, that dead men walked in that country. Again, the Sun in the summer getting up to a greater height entreteth not at all those houses that stand to the South; but then (in the winter season) approaching neerer it altogether and wholly shines thorow their windows. And therefore dwelling houes ought in a different manner to be erected, according to the diversity of the inclinations of the several regions in the world.

Tenthly, From the *particular constitution of places.* Where observe, 1. That places standing high, enjoy a pure Air, as being cleansed and purified by the winds that blow throw it; and therefore those places produce and nourish strong, lusty, and long lived inhabitants, by reason of the want and absence of moist excrements. 2. That steep down hill places depressed and (as it were) pend up between other mountaines, are in the summer time even suffocated with the reflexed sun-beames; and in the winter (by reason of the suns absence) are annoyed with overmuch moisture, and thick, clouded vapours. 3. Places that are plain, if to be they have on all sides every thing sit about them, they have then no other property, but that which is taken from the observation of the *Climates*. 4. Those places that are rocky and open, in the summer have the Air hot, but in the winter cold, & so thin and subtil, that almost no vapours can be elevated and drawn up out of rocks. 5. Places Mountaineous and high are inow, and therefore healthful by reason of their inows; but when these melt away, those places become very much clouded. Now if those Mountains are situate to the North east, then those places will be hot by reason of the reflected sunbeams; but if to the south, and that the winds blow from the North, then those places by means

of the snows and winds, are cold, dry, and sound, unless something else hinder. If to the East, then they are cold, because they ruled and swayd by the East. Their Air is thick both in regard they are nigh unto Mountains, as also because they lie open unto the Western Winds. If they be situate to the West they are therefore healthy in regard that they are then expoted unto the oriental or Eastern winds. 6. Those places that are woody are infested with a thick, suffocated, cloudy and turbid Air: among the trees, the Nut tree and Oak are more especially hurtful. 7. Those places that are neer adjoining unto rivers do moisten overmuch. 8. Such places as are fenny, and abound with lakes by reason of their filthy noysom vapors are very apt to generate diseases. 9. Those places that are nigh unto the sea are thought to be healthful in regard that saltness resists corruption and the winds do evermore thoroughly purge the Air, & because likewise that the Sea in the Winter and in a cold Region renders the Aire warmer than ordinary; but on the other side (in the summer time, and in a hot Country) it makes the Air exceeding temperate. 10. *Cardamus* hath lett it for a Truth unto us, that those that are full of hot Baths do viciate and corrupt the Air of the place; howbeit not to far forth that they hurt thtse bodies that are strong and able (which are not hot) by reason that they are altogether free from putrification. But of these see (I pray) and read (next after *Hippocrates*) *Renatus Morean* learnedly and excellently discoursing of them in his Tract upon *Schola Salernitana*.

Article, 2. *Of Meat.*

Point. 1. *Of the differences of Meats.*

Meat is a thing not Natural, restoring and augmenting the substance of Mans body.

Concerning it there are these five things to be explained. 1. The various differences thereof. 2. The kinds of it. 3. The Seasonings or sauces thereof. 4. Bread it self. 5. The time of repast, or taking of this meat.

The differences of Meats are various. I. In regard of its substance it is, 1. *Hard* which is not concocted without much difficulty, but it is easily corrupted. 2. *Soft*, which easily and soon receives a taint. 3. *Heavy*, thick, and gross; and this heaps up a juice, that is thick, fibrous, and earthy. 4. *Viscid, and clammy,*

clammy, which is very difficultly distributed into the veins. 5. *Firm*, which truly makes a supply of much aliment or nourishment, but then it stands in need of great store of heat and strength of Nature for Concoction. 6. *Infirm*, which indeed is easily and soon concocted, but then it breeds and supplies either very small nutriment, or at the best, such as is transient and of short continuance. 7. *Hard, or easy of digestion*, which accordingly is hardly, or with little difficulty overmastered by the heat of the stomach. 8. *Hardly or easily to be corrupted*, which accordingly (either through its own default, or else by reason of some weakness in the stomach, or lastly by means of some distemper proceeding from things therewithal mingled) is either easily or difficultly corrupted. II. In respect of its *Quantity, it is*, I. *Overmuch*, Either as it reters unto the capacity of the vessels, as it is all of it converted into blood, but then by reason of the too great abundance of humors it threatens the danger of suffocation or choaking, &c. or otherwise as it respects the strength of Nature governing and ordering us; which kind of excess breeds very many Crudities of all sorts. 2. *Too little*, to wit, when either we use but little food, or those meats of little nourishment; or else when we take them not often enough; and this evermore diminisheth the natural strength and powers of the body. 3. *Moderate*, which preserveth the substance of the body, defends the Native heat and maintains the lymmetry of the humors; it likewise sets bounds unto the Excrements, in receiving of which we are sayd to use a mean, & moderation, when we eat not to satisfy. III. In regard of its *qualities, it is*, 1. *Hot*, which attenuates and makes thin those humors that are thick, cuts and divides in sunder those humors that are temperate. 2. *Cold*, which indeed tempereth the boiling heat of the blood and of the stomach, but suggests matter of windiness. 3. *Moist*, by the which the dryness of the parts is amended, and the belly loosened. 4. *Dry*, which though it be not so easily concocted, yet it affords a fast and firm nourishment, and brings a supply of Melancholly Juice. 5. *Sweet*, which indeed (at least, if it be well compacted) nourisheth, but withal causeth obstructions of the Liver and spleen. 6. *Salt*, which preserves from putrefaction; but if it excessively taken, it burns the blood, and excites a kind of itching. 7. *Bitter*, which clenseth, and cuteth. 8. *Sharp*, which freeeth those parts that are ob-

structed, increaseth choller, and excites salt and sharp fumes. 9. *Acid*, which cuts, & if it be simply such draweth the thick Juice downward; if it incline toward a sweetness it mollifieth and loosneth the Belly; if it tend toward a sharpness, then it is astringent and binding. 10. *Sour and Austere*, which if it be taken in before other meats, bindeth; but loosneth if eaten after food. 11. Meats that afford a *good or ill issue*, 12. That which is *simple or Physical*; which besides the vertue it hath to nourish, hath likewise the power of altering. 13. *Unwholsome*, from the which there is an ill Juice generated, and such as easily putrifieth. 14. The *Best which is concocted*, affords much nourishment, and that nutriment that it yeilds is of the best; and is not easily corrupted, or deprived with any hurtful quality; and then again it leaveth behind it but very few Excrements. III. In respect of its *preparing, it is*, 1. *Crude or raw*, which to this very day the *Abyssines, Scythians*, and divers other of the Barbarians take great delight in. 2. *Rost*, the which alone the Peers of Troy are said to have fed upon during the time of the Trojain War; which yields a dry aliment and oftentimes hindereth the passing forth of the excrements: and this if it be extracted forth of the veins, and so shut up on every side that it can by no possible means exhale, it is then in this case very prejudicial and hurtful unto the Body. 3. *Toasted or broyled*, which is over adust, or too much burnt. 4. *Fried*, which with some other kind of external Moisture is dressed in the frying pan; and very sweet (in good truth) it is, by reason of the fat Moisture that attends it: but then again in regard that it doth not so conveniently send forth, the internal superfluous Moisture, but rather attracts and sucks in more of that that is External and superabundant, it is therefore hard of concoction, sending up a favor from the stomach to the Mouth, and burning up the blood. 5. *Boyled*, which indeed (as to the inner part) is dryer than the former, and yet notwithstanding by reason of its external humidity it moisteneth. 6. That which is *Strangled and suffocated*, if it be fitly and equally boyled, it then generates a laudable, temperate Juice, and such as easily finds a passage whether it ought to go. 7. It is either *sauced or not sauced*. But as touching Condiments or sauces, we will treat further of them in the ensuing discourse.

Point, 2. Of the sorts or kinds of Meats.

The species or kinds of meats are taken, 1. From plants. 2. From birds. 3. From four footed Beasts. 4. From Fishes. 5. From bloodless creatures.

I. Plants are, Bread-corn, all sort of pulse potberbs, and fruits.

I. Unto bread-corn there appertain, 1. *Wheat*, Which is hot and moist, yielding very much, firm, and most wholsom nutriment. The Glaminels thereof, if any such there be in it, is quite taken away in the due preparing of it. 2. A grain very like unto the former, commonly called *Spelt*, which in its nature and property is next unto *Wheat*; and nourisheth more than *Barly*, but less than *Wheat*; of it is made that we cal *Barly* broth; but others cal it *trumenty*. 3. *Rye*, (which by others is termed *Ragga*) out of which in very many places there is a certain kind of bread made; it is hotter than *Barly* and nourisheth more than it, but it is harder to be concocted than *Wheat*. 4. *Barly*, out of which is made that spoon-meat which we commonly cal *Ptisān*, an excellent wholsom kind of food, opening and cleansing the passages, and easily transients; but yet nevertheless being somewhat thin of substance, it is therefore held to be the less fit for the preservation & lengthning of the life. 5. *Oats*; which heat, afford good and commendable aliment, and stop the lask or flux, of the Belly. In some places there is a spoon-meat prepared & made herof (a kind of Gruel) with cows milk, Goats Milk, or else with the juice of sweet Almonds, (commonly called *Almond* milk) and sugar. We use to bruise this oatmeal, and so to eat it in flesh pottage. 6. *Rice*, which by the Eastern people is for the most part made into bread. It is temperate and with milk nourisheth very much; but is more difficultly concocted, and yieldeth a thicker kind of juice (which is therefore the more apt to obstruct) and increaseth the feed. 7. That which we cal *Saracen* bread-corn, which indeed sufficiently and fitly nourisheth such as live by their labor, but which is hardly digested, begets windiness, and is hurtful to the eyes. 8. *Millet* or *hirse*, which is cold and dry, binds the belly, and is not digested without some difficulty. 9. That which we call *Panick*, like unto the former; but yet of nothing so wholsome a nature and property as the *Millet*; notwithstanding being beaten and bruised in a Mortar (or otherwise); and throughly purged &

cleaned from its branninels, it then affords a kind of pottage not much to be contemned, or loathed.

II. Of the Pulse, there are, 1. The *Beans*; which are Cold, Dry, and Flatulent or windy, They are of a crude and raw Nutriment, but withal such as is very absterfive, and hard of Concoction, and rendering the sense dull and stupid, and the sleeps turbulent; and therefore an utter enemy to such as are studious, and live sedentary lives. Those of *Leyden* break them with a Mil, boyl them throughly, and being hulled they then make them up into a certain thick white substance for their use, and spending. 2. *Pease*, which are cold, dry, and windy, especially those that are green: they are Experimentally found to hurt the Nerves; the Broth or Pottage made of them is better than their substance. 3. *Lentils*, which generates an Aliment that is both cold and thick, of hard digestion, filling the Head with gross Vapors very hurtful to the Eyes, and the breeder of much thick blood; especially if they be Eaten with Salt flesh. 4. A smal Pulse called *Cicers*, which by Reason of their absterfive faculty, are most commonly sought out, and made of for Physical purposes. *Dioscorides* writeth that those that use them, thereby gain a fair & fresh color. 5. A sort of Pulse yet smaller than the former, called *Chichlings*, which obtain a mean, and stand (as it were) in the middle place between those kind of meats that are of good or ill Juyce, and easily or with much ado concocted, and converted into nutriments. 6. *Vetches*, which suggest a gross and thick Juyce, and such as is only fit, (and good for nothing else) to generate black cholet or Melancholy, and to render the Body costive, through overmuch binding the Belly.

III. Under Potberbs, and in the Number of Garden Plants fit for Food, Herbs or Leaves, Stems or Branches, Roots, and Fruits, are Comprahended; For as touching Seeds, I shal here speak nothing of them. I. Among Leaves and branches, are, 1. *Lettuce*, which of all Pot-herbs is absolutely the best, and yieldeth more matter for the generating of Blood, than other Pot-herbs; by its coolness it excellently qualifieth and allayeth the boyling heat of the stomach, procureth sleep, and tempereth the heat of the Kidneys: But if a man feed too much thereon, it then extinguisheth the feed. Two ounces of the Juyce hereof taken at once, or for one Dose, Kils unavoidably. It is Eaten raw, with Oyl, Salt, and Vinegar. 2. *Endive*, which

(according

(according to the Opinion of *Galen*) hath its qualities like unto those of the Lettice aforesaid. In other places, it is far ferch, and stored up until the winter months. For in those places their custome is, with a smal threed, to bind together round like a Globe the Leaves hereof so soon as they are come to perfection, and so to preserve them covered in earthen Vessels. 3. The *Colewort* and *Cabbage*, which is cold and dry, hard of concoction; which affords an Aliment that is thick and gross, that exhales up into the Head Fuliginous Vapors, disturbeth the sleeps of those that eat it, and extremely weakeneth and Dulls their sight. Its hurtful quality may be corrected, if we take it Boyled in flesh Pottage. The Juice thereof hath in it a tart Acrimonious quality, & such as excites and provokes the Belly to void its Excrements. That which hath its Leaves spread al abroad, is far wholsomer and better than that which groweth al of a Head, which for distinction sake we cal the *Cabbage*. It is allowed to be eaten by working and laborious people, but then for a corrective, Pepper must be added and eaten therewith. 4. *Spinach*, or *Spinage*, which cools and moistens, generateth ferous or whayie humors, and is somewhat offensive by its treasuring up windinels unless you mingle therewithal (for a corrective) Pepper, Salt, and Butter. 5. *Mallows*, which yeildeth little nourishment, causeth a flux and looseness of the Belly, and borroweth a grateful & acceptable tast from butter and other Condiments. 6. The like may be said of the herb *Arach*, or *Orach*, and *Blite*, which latter is likewise a kind of *Spinach*. 7. Beets are cold and dry, and of different parts; the Juice thereof cleanseth, the substance of it bindeth the Body; howbeit it removeth the obstructions of the Liver and Spleen. The Ancients were wont to add thereto Wines and Pepper. 8. *Asparagus* or *Sperage*, unto which the tender young branches of the Hops are very neer of kin, as being of a temperate Nature; they afford but little aliment, and that likewise none of the best; this *Asparagus* is very grateful to the pallate, excites and provokes the appetite, it cleanseth, expels Urine, and purifieth the Kidneys. 9. *Watercresser*, which by reason of their heat, are commonly used instead of a condiment or Sauce. *Equineta* hath added this futher of it, to wit, that it is an enemy unto the Stomach, and that it breeds an ill Juice. In time past, the use of it was wont to be very frequent and familiar

with the *Persians* in their ordinary diet. 10. *Mustard*, which is of a tart and sharp tast, and is withal most apparently hot and dry. And thereupon it is placed and recounted among those Condiments or Sauces which attenuate thick and gross meats. It is in the Vintage time mingled and thoroughly moystned with new Wine or Must, from whence it hath the name of Mustard. 11. Of Roots there are, 1. The *Onyons*, that afford but very little nutriment; but they are of a hot nature, they cut, attenuate, heat and inflame the Blood, and the thiner parts of them being digested and scattered, they leave behind them a gross and thick Juice, they incite and provoke unto *Venery*, cause distracted and turbulent dreams; and are very offensive unto the Head, Eyes, Teeth and Gums, especially in those that are choleric. 2. *Garlick*, which in the Month of May is by many of the French eaten with fresh butter; and of which beaten together with Wal-Nuts in a Morter, they prepare and make that *Garlick* sauce that we term *Alliatum*. In *Garlick* crude and raw there is not Alimene at al, and in that which is boyled there is very little, and that also none of the best. By its extraordinary great heat and dryness it attenuates and cuts asunder the thick Humors; and moreover it is a most exquisite Remedy for the correcting of the pravity, of waters that are gotten together in the Abdomen or Belly, and a special help and means for the enduring of cold. 3. The *Leek*, which hath almost the same properties and qualities with the Forementioned. It is choleric, and greatly hurtful to such as are of weak Brains; it dulls the sight of the eyes; and being often eaten it begets choler of a Greenish color much like unto the *Leek* it self. If it be in the beginning of the meal Eaten raw with Salt, it then freeth the stomach and Belly from gross and thick Juices. 4. The *Reddish*, which together with Salt we use to eat raw. But it is fitter to be used instead of a sauce or sallad, in regard it is extraordinary hot, and withal sharp and tart, tiring and wearing out the Teeth. It collecteth together the scattered spiries, breaketh the windinels of the stomach by causing ructures or belchings, provokerh Urine, and expelleth the gravel out of the Kidneys. That Garden Raddish is accounted the best which is brittle and easily broken. Unto the former may be added the wilde or horse Raddish which hath in a manner the like vertues and properties with the Garden Raddish, and is more frequently made

made use of for a sauce than for food, affording little or no Aliment. 5. The *Rape Root*, which yieldeth nourishment enough, to wit, *Hot*, and moist; but then it is more slowly concocted (more especially that which is raw) and puffeth up the Belly. It is sometimes kept until it be withered, and then made use of. 6. The *Navew* or *Turnep*, which affordeth more Nourishment than the former, and hath in it less of the thick and flatulent Juice than the *Rape Root*, provoketh lust, and excites unto *Venery*. 7. The *Garden Parsnip*; which yieldeth but little Aliment, and that likewise thick; and its Juice is none of the best. It furthereth the Expulsion of Urine, stirs up *Venery*, and expels forth the Causes. 8. The *Red Beet*, which being boyled or pickled up with Vinegar, Caraway Seed, and *Horle Raddish Root*, is presented and set upon the table in the place of a grand salad, rather than as a meat, since that it very little, or nothing at all nourisheth.

III. Of *Fruits*, there are, 1. The *Artichoke*, which heateth and dryeth in the second degree, is hard of Concoction, and the Juice thereof none of the best. It is by some Eaten raw with Salt alone; but by others they are Boyled, and then they add thereto Peppercorns beaten, and Butter; if it be Eaten with Vinegar and Oyl it expels and drives forth abundance of Urine of a stinking Savor. There are some of Opinion, that it excites the appetite, and restoreth it when weakened and well nigh lost. 2. The *Gourd*, which affordeth an Aliment more than ordinary cold and moist, and therefore such as is transient and stayeth not long in the body, but soon passeth throw. When it is corrupted in the stomach it is then converted into a very Malignant Juice. Yet some there are that conceive these Gourds to be less dangerous and hurtful than Cucumbers. They are oftentimes sent to the table either roasted or fried. The longer and lesser of them are the more grateful, and indeed the more wholsome; such as grow and increase after their hanging up, have in them but little or no Seed. 3. *Cucumbers*; which are cold and dry. *Galen* was of Opinion that these were never to be allowed of, or admitted by men in their common Course of Diet; but that they were evermore to be banished from their Meals, as most dangerous and baneful. For they abide unconcocted in the Stomach until the day following. Yet notwithstanding they may not unfitly be Eaten (but they are rather thought to be very commodious and proper)

if while they be yet green, and before they be ripe, you take them in salads, after they been a while kept in a Pickle made of Vinegar and Pepper, and they are then least hurtful unto those that have their stomach over hot. The *Venetian Physicians* prescribe them against *Pestilential Diseases* by them to cut and divide the Humors. 4. *Melons*, of all sorts (but principally the *Musk-Melon*) which are both grateful to the Palate, and withal send forth an Aromaticall or sweet smell; but in regard that they abound with water from their Humidity, they are thereupon easily corrupted; and being once corrupted they degenerate into a *Poysonous Nature*, and thereby excite store of *Choler*. And therefore they ought to be taken in the first beginning of Meals that so they may the more easily pass through; and then we must be very careful to put nothing upon them but meats of a good Juice, and then after all to drink one draught or two of the best Wine. 5. *Straw-berries*, which are moist and cold, of a thin Juice, and such as is soon and easily corrupted in the stomach. They cool the stomach and Liver when they are over-hot and cholerick; they restrain and qualifie the heat of the Blood and Humors, allay the vehement thirst, drives forth the Urine, and cleanse the Reins. The best and fittest time to Eat them is in the beginning of the Meal. They are now and then Eaten with Cream and Sugar; but most usually (as the better way of taking them) they are Eaten out of Wine. 6. *Capers*, which if they be fresh and new, do the more effectually nourish, and loosen the belly. If they be eaten with vinegar and oyl they excite and Whet on the appetite unto a desire after meat, they remove the obstructions of the Liver and Spleen, and carry forth that *Flegm* that is contained within the Cavity of the Belly.

IV. The *fruits of Trees*, are, 1. *Apples*, of which such as are sweet tasted, and withal sweet smelling, yield an indifferent quantity of Aliment, and are a good remedy against all sorts of *Melancholy Distempers*. Such of them as are sharp and sour are cold, and extremely windy. Those of them that are rough, harsh, and not Mellow, are of a thicker Juice, and therefore descend over slowly into, and through the belly, albeit the Force and strength thereof was qualified and corrected by the first Concoction. Such of them as are waterish are of a most corrupt Juice, and have no tast at all in them. 2. *Quinces*, which are cold and dry, of small nourishment, and of hard digestion; if they

be eaten raw they are very hurtful to the sinews; if they be taken in the beginning of the meal they render the belly Costive, if after meat, then they loosen the belly, and shut the mouth of the stomach. 3. *Oranges*, which if sour they are usually put into sauces, and being therewith mingled they are of singular use, both for the stirring up of the appetite, and for the removal of the stomachs nauſeousness and loathing: but if sweet they are not then to be squeezed into sauces and so eaten with other meats; but how ever we use them they are of singular benefit in helping Coughs, and easing the jaws when exasperated and inflamed. 4. *Pears*, which if sweet, they are then of a more moist and cold nature (the muscatel or muske pears only excepted, which are hot, and more obnoxious to corruption) if they be harsh and sour, they binde and cool the Belly, & are hurtful to the stomach & the Intestines: they are the better if eaten boyled. 5. *Medlers*, which are cold and dry; those therefore alone of them that are milde and mellow are to be eaten; and these afforde but very little nourishment, and that likewise hard of concoction; they are good to stop a vomiting, when there is occasion; and they are also very fit and convenient for a hot chollerick stomach. 6. *Figs*, which are hot and moist; these nourish more then other fruits, and easily descend from the stomach, and pass out of the Belly; and if they be eaten into great abundance, they excite and generate windiness. Those of them that have been kept a while til they be dry (we usually cal them *Carice*) have in them such an absterſive and clensing quality, that oftentimes they cause that flux that we cal the Lientery, drive forth the humors unto the exterior parts, provoke unto sweats; and if much eaten they produce a smal sort of lice. 7. *Peaches* (or Persian aples) which are al of them cold, and moist; they nourish but little, and are soon corrupted; such of them as are new and fresh to be eaten before meat; those of them that are dried or boyled do in some sort lose and lay aside al the ill quality that is in them. 8. *Abrecotes*, or *Apricocks*, (the Ancients caled them Arminian Apples) which are reputed better than Peaches, and more acceptable to the stomach. 9. *Prunes*, the which al of them are cold and moist: The sweeter of them mitigate choller, are easily concocted, and descend through the belly: such of them as are white, and in color like unto wax, are the worst and vilest sort of them al; those of *Damascus* (we cal them damaske prunes) and *Hungaria*, are the best

sort of them. While they be new they have in them an excrementitious moisture; and if they be eaten raw; they yield a worse kinde of Juice, and (to speak truth) they over much loosen the retentive faculty of the stomach; but being dried they are much the fitter for nutrition or nourishment. 10. *Cherries*, which if they be sweet, by reason of their abundant humidity, they are soon corrupted; and so come to generate a sort of smal long worms, and putrid feavers; if they be sharp and sour, they cool, qualifie the heat of the Liver and stomach, are easily concocted, and pass through the belly, stir up the Appetite, neither do they afford any ill Juice. 2. *Mulberries*, which moisten, cool, nourish but little, descend easily through the belly; and therefore in regard that if they be long reteyned in the stomach, they soon corrupt and putrefie, they must only be taken in upon an empty stomach, that is free from chollerick humors. 12. *Grapes*, which if sweet, they are then the hotter, and excite thirst; if they be tart and sour, they are then (by so much) the colder; if full of a winy Juice and substance, they are then of a mean quality and temperament betwixt the two former. If they be new, they afford but little nourishment, lift and swell up the spleen, beget the chollick, and if they be detain'd in the body beyond the due and convenient time, they fill the liver and stomach with Crude humors. If they be dried (we cal them raisons of the sun) those of them that are only sharp and sour binde the belly; such of them as are sweet afford greater store of nourishment; but those of them that are both sweet and austere or somewhat sharp, are the more excellent of them al, as agreeing with the Liver in their whole substance, and exceeding beneficial unto the Breast. *Corans*, which being without stones ad more strength to the body. 13. *Olives*, which being pickled are of excellent use to provoke the appetite, and are more easily digested in the stomach. Those which are most astringent, are used after meals, that the mouth of the stomach being thereby strengthened, the meat may be the sooner passed downe into the belly. 14. *Almonds* which if they are bitter, they exceedingly provoke urine, and by their bitterness breed a loathing of meat; if they are sweet, they are hot and moist, yeild plenty of good nourishment, and are therefore good for those that are in consumptions, and very lean. They are not good in chollerick feavers, nor in an hot stomach. 15. *Chestnuts*, which are hot and dry, hard to digest, yeild good nourishment if well digested

gested, but it is hardly distributed; if they are eaten in too great a Quantity they engender wind. 16. *Walnuts* are hot and dry. Such as are new, because of their moistness are best eaten with salt. The *drie* are eaten after fish, the moisture whereof, they do with their dryness temper. They breed cholera, and make rough the mouth of the stomach, the gullet and the wind pipe. 17. *Hazelnuts* and *Filberds*, are colder than walnuts, and afford more nourishment, are hardly digested and breed an earthy juice. To these may be added, *Mushromes* and *Toad-stoolers*, which are for the most part cold, tasteless, of a thick and watry nourishment. Eaten not without danger, both because they are of bad juice, and because they are sometimes venomous.

II. *Birds* which are mans-meats, are either *Land* or *water* fowl: they afford us their *flesh*, *other of their parts*, and *Eggs*.

I. In respect of *Flesh*, among *water-fowles*, the cheife that afford us meat are, 1. The *Duck* both tame and wild, which breed a thick and melancholy juice, stop the veins of the mesentery and spleen, and are apt to breed *Quartan Agues*: especially such of them as are continually in the dirt and mud. 2. The *Goose*, which if it be tame, is of Excrementitious juice, and apt to putrify, but the tame more than the wild. The best of those which live and feed alwaies on Land, are, 1. *Poultry*, because they have temperate flesh, of good juice, and little excrement. Where note, 1. That the flesh, of their bodies, is the best of all other, and comprehends the praise of all birds, as to feed. 2. That Hens are dryer, than the rest. 3. That the flesh of *Cocks* is harder and dryer, especially that of old *Cocks*, whose broath purges the belly. 4. That the *Turkey-cock* is not inferior to a *Capon*, either in tast, or goodness of juice; being good for such as are recovering out of sickness, the sweetest parts of them are the breast and the belly. They are variously crammed fatned and dressed with *Oysters*, spiced, with gelly, with white-broath, boyled, roasted, fried, pressed, distilled. 2. The *Partrich*, whose flesh is temperate, enclining a little to dryness, of easie digestion, of excellent juice, much nourishment, little excrement, and which is well given to such as are upon recovery, and as are troubled with the whoremasters *Pox*. 3. The *Pheasant*, which equals a *Capon* in goodness of flesh and juice. 'Tis commended in Autumn and Winter, being better in the wings than legs. A pheasant Chick is sweetest, when it is six

or eight weeks old. 4. The *Heub-cock*, whose flesh is of the same nature with the former. And is very fit meat for such as are recovering after sickness. 5. *Pigeons* whose flesh is of a thick, melancholick and excrementitious juice, nor easily digested, nor good in putrid Feavers. The *Mountaine* and *wood-pigeons* are best. The *Turtle dove* affords little and thin juice, the older of them, breed Melancholy blood. 7. The *Lark*, which engenders excellent juice, and is easily digested, it is thought by a peculiar faculty to preterve from the Cholick and to cure the same. 8. The *Black-bird*, whose flesh is little inferior to that of kids, in sweetness, easiness of digestion, and goodness of juice. 9. The *Quail*, which is hot & moist, hard to digest, of evil nourishment, much juice, much excrement, affording matter for fevers. 10. The *Thrush*, which *Galen* allows such to feed on, as are of a leane and thin habit of body. *Apicius* terms their flesh diabolical, because it smells strong of Hemlock. They are taken very fat, when Grapes begin to be ripe. 11. The *Sparrow*, which some are delighted with at all times, but in winter especially; because they are in the summer by reason of their Letchery, leaner, dryer, and hotter than at other times.

II. The *Parts of Birds* are, 1. The *Combs*, which are proper to poultry alone. *Galen* reckons them among such meats as no man will commend or dispraise. They are thought to incite such as are slow, to generation. 2. The *Wings*, which because the superfluous and crude moisture is wasted away by exercise, are of good juice and easie to be digested. 3. The *Rampe*, which in such as have short legs, is more fleshy and fat than ordinary, but sometimes it makes the stomach sick by its over fatness. 4. The *Brain*, which in birds than in four footed beasts is dryer and harder; in such as feed on mountains, it is more delicate, than in such as lie in the fields and marshes. The sweetest is that of *Cocks*, *Partriches*, and *Pheasants*. That of *Sparrows* and *Pigeons* provokes fleshly lust. 5. The *Neck*, which is thought to hurt the *Eye-sight*, by reason of blood therein in coagulated. 6. The *Tongue*, which the more muscularous it is, the better it is. *Bruyerinus* writes that the tongue of *Geese* provokes lust. 7. The *Heart*, which is of a liberous and hard substance, is hardly digested, and hardly passes. Often eaten it breeds melancholly blood. 8. The *Lungs*, which because of their thin substance are easily digested and nourish little. 9. The *Stomach*, which is for the most part fleshy and hard, that of a

Goose is the sweetest. That of fed Hens is rather fleshy than hard: We call it the Gizzard. 10. The Guts, which in some kind of birds is couched a dainty. The Guts of a lark, which are hard and bitter, are by some swallowed like pills, to loosen the belly, but in vain. 11. The Liver, which by reason of its hot and moist temper, is of kin to our natural Heat. That of a Goose is most short and tender, and most highly prized. Anciently they moistened their Goose-meat with milk, to make it nourish the more. 12. The Spleen, because in most birds it is very little, is of no account. 13. The Stones, are best in cocks if they are nourished with wheyish nourishment. They are sought for by delicate and wanton people as incentives to Lust. 13. The Feet, which because they have little flesh upon them, nourish little, and because they are nervous and tendinous they are hard to digest. 14. The Skin, which is sweet in such as are fed up and fatted, but of small nourishment, and hard to digest; that is the sweetest which covers the Loins of Hens. The rugged and fat skin of the Neck, is better boiled, than roasted. 14. The Marrow, which if it be of the back, it is of the same Virtue with the Braines, save that is a little harder; if that of the bones, it is more fat and pleasant; but eaten too plentifully it causes stomach sickness. 15. Fat, which being moderately eaten, with salt, gives little and bad, yet delightful nourishment. It takes away the Appetite, if wine be drunk down after it, because the stomach is smoothed, the wrinkles are taken away, and the sense of pain by reason of the sucking of the stomach is taken away.

III. The Eggs of Birds consist of the yolk and the white. The former by propriety of substance is easily inflamed and turned to fumes. The Latter is cold and glewish, breeds bad blood, and is hardly digested. They vary in respect of Substance figure and concoction. They are, 1. Those of Hens, Partridges, Pheasants, such as are young and fat, which excel al others. 2. Ducks, Geese, and Peacocks Eggs, which are counted worse. 3. Such as are Small, long and white; which are thought to excel others in goodness of juice. 4. Such as are Pale, as those of Ducks and Geese, which partake more of a watry substance. 5. Trembling Soft, which are so far thickened by boiling, as that they seem to tremble in the shell in the hand of the holder, do give much nourishment and excellent juice to the body; are easily digested and distributed, and breed blood which is most agreeable to the na-

ture of the Heart. 6. Supping Eggs, which nourish less than the quivering or trembling, but they pass more easily and mitigate the roughness of the Jawes. 7. Perfectly boyled being thickned, which are hardly digested, pass slowly down, and afford a more thick nourishment. 9. Roasted, are of thicker substance than boyled, because the Heat of the fire consumes their moisture; and if they are quite covered with ashes, because the fumes are thereby kept in, they are the more unwholsom; if they are laid open upon the embers because they breath out their fumes, they are better. 10. Boyled they are better than roasted, because the moisture of the water, hinders them from being dried by the fire. 11. Fried, which while they are digested in the stomach, do evaporate into nidorous fumes, and corrupt other meats, and breed thick juice. 12. Poached Eggs, which Galen teaches how to dress, are better than boyled or roasted, if they are done neither too soft nor too hard.

III. The third kind of Meats are four-footed beasts. Which afford for mans food. 1. Their Musculous flesh 2. Their Head. 3. Their Breast. 4. Their Belly and pauch. 5. Their Leggs and feet. And 6. Such things as are taken from, but are not parts of them.

I. The Musculous flesh, is frequently used for meat, and is hotter with quickning heat than that of fowls, and therefore they grow thrice as big. 1. It is Oxe-flesh, which if of young beasts, not broken with Labor, 'tis to much the better, but seldom used: if of old beasts, it is thick, hard of digestion, and passes not easily through the veins, yet is it free from roaping and clamynets. It breeds a loole nourishment, hard to digest, and produces thick blood. Hippocrates has written that it causes cholera sicca 2. Cow-beefe, which is of a thick & melancholy juyce. 3. Calver-flesh, or Veale, which is temperate, of good juice, easie to digest. Yet it affords somewhat a thicker juice than Kids flesh, Lambs or Weathers flesh. 4. Swines-flesh, which differs according to the Age, that of Sucking pigs is moist, of no good juice, and which easily putrifies, and therefore wine must be drunk upon it. That of young shotterels is better, and gives good nourishment. That of young Hogs, especially those of May, is best of all, nourishes most powerfully, and affords firme aliment, to Men flourishing in years, very convenient, and for such as are excited with hard labors. That of Old decrepit Swine, is hard, tasteless, causes melancholy diseases, must be moistened with wine drunk after,

after. The flesh of the *Wild boare* or *Swine* is better than that of the *came*, both because it is not so excrementitious, nor breeds clammy juice. Out of no other *Beast* so much fuel is afforded to *luxurie*, for no less than 50: several tastes are thereout produced, whereas others have each one single taste. 5. *Sheeps*, which is of too unfavory a taste, and fit for *Country* people; it smells strong, if it be boyled after the *solstice*; worse, if it be roast. 6. *Lambs flesh*, which before a year compleat is moist, slimie, after a year, it is full of good juice, of a middling consistency, and is easily digested in such persons as take paines, and is soon digested. 7. *Weathers Flesh*, which is easily digested, and breeds good blood, if it be of such as are young. 8. *Roes Flesh*, which is of good nourishment, and excels the flesh of other wild beasts, in easy digesture, and little excrement, yet is it somewhat of a dry nature. 9. *Kids Flesh*, which being temperate is easily digested, and breeds good humors, but more clammy than those arising from veal. 'Tis flashy and void of taste unless it be roasted. 10. *Deeres Flesh*, which is drie and hard to digest, breeds melancholly blood, if it be of an old Deere, and is apt to obstruct the bowells. 11. *Hearts Flesh*, which affords melancholick juice: but if it be well digested, it is not of ill juice: and is thought to such as eat it to have a fresh color.

II. The *Heads* of four-footed beasts which serve for food are the *Oxe-head*, *Calves-head*, *Hogs-head*, *Wild Boares-head*, *Kids-head*, *Hares-head* &c. Of which, thus much may be said in general, that they are hard of digestion, of a thick and clammy juice, and very nourishing. Their principal and most esteemed parts are. 1. The *Tongue*, which consists of a flesh by it self, loose, spongy, moist and clammy: and therefore it affords a nourishment not solid, thick, or long-lasting; yet in some creatures 'tis exceeding sweet, soft, of good juice, easy to digest, and affording no bad nourishment. That end which the beasts are wont to thrust out of their mother is harder than the rest. 2. The *Eyes*, which are of no account, saving those of a *Calves-head*, which are compassed with much fat and soft flesh, and are involved in thin membranes. 3. The *Eares*, which because gristley, nourish little, unless they be eaten with the bordering parts. 4. The *Cheeks*, which, if they are of young beasts fat and fleshy, they are not void of good juice. Those of *Calves* are most tender. 5. The *Brame*, which is flegmatick,

of thick juice, passes slowly, and is hard to digest. It makes the stomach thick, and provokes vomiting. *Varignana* saies it is good against poyson, perhaps because of its clammyness wherewith the sides of the stomach are daubed. 6. *The Palate*, which is commended in an *Oxe*. It is covered over with a certain membranous flesh, and is a frequent Ingredient into minst pies, Haggests, and Puddings. 7. *The Snowt*, which *Galen* counts inferior to the feet in *Hogs*, and better than the *Eares*.

III. In the *Breast* the *Heart* and *Lungs* are seated. 1. The *Heart* is hard to digest, as I said before. The *Salernitans* are of Opinion, that an *Hogs Heart* encreases pensiveness, namely in such as are already troubled with *Melancholly*. 2. The *Lungs* are of a cold and moist temperament, of a flegmatick juice, easily digested and distributed, by reason of their rarity or thinness of substance, and their Lightness: some say they puffe up the belly.

IV. The parts of the *Belly* are, the *Liver*, *Spleen*, *Kidneys*, *Stones*, *Matrix*, *Stomach*, *Guts*, *Mesentery*, the *Flanks*, *Duggs* or *Udders*. 1. The *Liver* of all beasts, is of thick juice, hard to digest, and which passes slowly. That of a *Sow* is best, especially if she have been fed with figgs. That of *Lambs* and *kids*, does more easily pass, and is not so thick juiced. The *Roes Liver* is said to bring epileptical convulsions as well as the *goats*. The wild-swines liver covered with the *Gal*, is commended. 2. The *Spleen* because it draws thick, dreggy and melancholick blood, affords suitable nourishment. Those of young swine, because they are not infected with so bad blood, are not of so ill juice. 3. The *Kidnies* are of bad juice, ill taste, hard to digest: those of *kids* and *Calves* are commended, because they are neither hard, nor rank. 4. The *Testicles*, because they have a rank taste, especially in such creatures as have engendered, are hard and ill to digest. But *Hogs-stones* are counted the best, and *lambs stones* are not ill thought of. 5. The *Matrix* was by the ancients esteemed a very dainty dish, and was reckoned of two sorts, viz. that of a *sow* or other beast with young, and that of *Virgin female*; Because it ingenders a cold and crude juice, therefore 'tis hardly digested. 6. The *Stomach*, what nourishment it gives may easily be conjectured by its constitution. 7. The *Smal guts* which the greeks termed *chordas*, the Latines *Lactes*, were anciently a dainty dish, witness the

the Poet *Epicarmus* in *Megaride*: the thick guts which they called *Phuscar*, were no less esteemed of. 8. The *Mesentery*, especially that of a fat sucking calf, is a most dainty dish with a little *Vinegar*. 9. Touching the flanks or *groins* I have nothing to say. 10. The *Udder* was counted for a dainty dish, as may be collected from the *Pseudolus* of *Plautus*.

V. The *Extremities* or feet are by *Aristotle* accounted to be of a clammy nourishment. *Mnesibius* the Athenian, writes, that they and the Head have little nourishing and pure Juice in them. Some have termed them the Sacrifice of *Venus*. Hereunto I refer the *Sweet bread* and *Brawne*, the sweet bread is a Kernelly, Soft, Spongy and white substance. *Plautus* commends it in his *Curculio*. That of a *Calfe* is the sweetest. *Brawn* is swines flesh hardened, and was highly esteemed by the ancients.

VI. Food taken from Animals being no part of them, is *Milk*; which also affords the parts whereof it consists, *Whey*, *Butter*, and *Cheese*. I. *Milk* is manifold. 1. *Raw*, which must be taken new milked, lest it cause Wind. That of *Cows* or other Creatures which have newly brought forth their young, is not approved. 'Tis corrected with a little *Salt* or *Sugar*. 2. *Boyled*, which is indeed less windy, but because the whey is consumed by boiling, it becomes thicker, and apt to stop the Veins. 3. *Cheesie*, which has much *Cheesie* substance in it, Nourishes much, but is not so wholesome. 4. *Buttery*, which is more clammy, is hardly distributed, and causes wind. 5. *Wheyish*, which nourishes least of all, and quickly passes through the Belly. 6. *Of lean Cattle*, which nourishes little. 7. *Of Fat beasts*, which is said to be apt to breed convulsion fits. 8. *Of black beasts*, which is better than that of such as are white. 9. *Milk after the bringing forth of young*, which is most liquid and thin, and grows thick in time. 10. *The best*, is luke warm, of equal substance, put upon the Naile, it does not soon run off, light rather than heavy, not clammy but sweet, without smell, white, and in some sort shining, finally which proceeds from an healthy Creature, being made in well constituted *Udders*. 11. *Womens milk*, which is very near the best of all other. 12. *Cowes milk*, which is thicker than that of Women, fatter, and more nourishing. It easily obstructs, and is in the Stomach hardly digested. 13. *Sheeps milk*, which is inferior to that of *Cowes*, and ob-

structs more. 14. *Goats milk*, which is a little hotter than the foresaid, of thinner substance, and less nourishment, and more apt to loose the Belly. 15. *Mares milk*, which by the thinness and heat of the wheyish substance, wherewith it abounds, is exceeding defective and clogging. 16. *Asses milk*, which is colder, thinner and more wheyish than the rest, less nourishing and less obstructing, it exceedingly clogs and loosens the Belly, without any acrimony or biting. II. *Whey*, in regard of its watry and *Flegmatick* substance, cooles and moistens; in respect of its sharp, *Salt* and *Flegmatick* parts, it clogs. III. *Butter*, helps the breast and Lungs, brings up flegm, and is good for cold and dry Coughs: taken in great Quantity, it loosens the Belly, and is endued with a strong faculty to digest, disperse, concoct, and lightly bring up. When it is old, it attains an *Acrimonious Quality*. IV. *There are some Differences of Cheese*. 1. Some is new and soft which is preferred before that which is hard & old: because it nourishes more, & passes sooner through the belly. 2. Some is of a thin and loose substance, which is more wholesome than that which is compact. 3. Another sort is *Clammy and dry* which is accounted bad. 4. *Sheeps Cheese*, which is concocted more easily than other sorts, and affords better nourishment. 5. *Cowes milk cheese*, which is next in goodness to *sheeps Cheese*. 6. *Goats milk cheese*, which is worse than either of the former, as being doubtless more hot and thin. 7. *The best cheese*, is void of Eyes and holes, not over salted, nor foul with hairs, nor wheyish, nor old, nor hard, nor Rank. See *Gesner of milke, and things made of milke*; and *Nardius in his Physical Analysis of milke*, IV. *The fourth kind of meates*, but worse than those of four footed beasts, are *Fishes*, whose qualities will be best explained by their Differences and parts, Viz. Their flesh and other Members.

I. The Differences are taken. I. From the Place, in respect whereof, some breed and live in lakes and ponds, others in Rivers; some are *Sea-fish*, both such as have the stony places near the shore, and such as live in the *Maine Sea*; others live partly on land, partly in the Water; others are digd out of the Earth; touching all which observe these following Rules, 1. *Pond-fish*, because they are muddy and little exercised, are full of Excrements. 2. *Lake-fish*, that live in great lakes, which are watered with Fountains and Rivers, are better than the former. 3. *River-fish*, which swim

swim in troubled Waters, that receive the filch of great Cities, are offensive to the stomach, are of thick substance, and difficultly voided forth; such as live alwaies in cleare Waters, are better than pond or lake fish. *Sea-fish* that live in an Northerne Sea open to the winds, by reason of their exercise, and the purity of the winds, have excellent flesh. 5. *Maine Sea* fish which live in the bottome of the Ocean, are of hard flesh, are hardly digested, but they afford plenty of nourishment to the Body. 6. *Shore fish* because they live upon the scum and purgings of the Sea, may be disliked: and because they haunt in such places as are inlightened with the Sun beams, and by continual exercise such Excrements as are collected from their food, are dissipated, they are to be preferred before such as live in the Maine Sea. 7. *Stoney place baring fish*, which keep alwaies one place and food, are easie to digest, of good juyce, absterfiv, light and little nourishing: such as roame up and down, by reason of their continual motion and the cuffs they receive from the billows, are of an hard flesh. 8. Fish *Dug out of the Earth* have hard and unpleasent flesh, and *Seneca* records they were found so bad and destructive, that al died that did eat of them. 9. Such as *live on Land and Water*, by reason of the variety of their diet and motion, are hardly allowed as good to preserve strength. 10. Fish of the same kind and sort, differ in goodness and badness, according to the healthyness & unhealthyness of the place wherein they live. Some are better in the Ocean than in the Mediterranean seas and contrarywise.

II. From their *Substance*, in respect of which, fishes are. 1. Of an *Hard flesh*, which are disallowed, especially if they be clammy withal. 2. *Soft of Flesh*, which are best of al, if their Flesh be also tender and short. 3. Of a *middle Nature*, which have short but not soft flesh: such as are mullets. III. *In regard of Age*, in which respect note. 1. That little fish, if hard of flesh, are disliked, as also the tofter, because they have a slimy substance. 2. That old Fish, do by their Age lose much of their flesh. 3. That those of middle Age are most approved, because they are neither slimy nor dry. IV. *In regard of their food*. 1. Some *Eat flesh* and are of an hard and dry substance. 2. Others *live upon slime and mud*, which are of Clammy substance. 3. Such as *feed upon Roots and Herbs* have soft and short flesh, &c. But of

these see my Books of Fishes.

II. Among the *Parts of Fishes* used in Diet, in the Cheife is their *Flesh*. In respect of it therefore. 1. *The Stock fish* though being new, tis short, tender, of good Juyce, and easily digested; yet being dried, it affords a thick nourishment, hard to digest, and which cannot be overcome, save by a strong Stomach. 2. *The Sole, Flounder, and Place*, being fresh and new, have white and good flesh, and such as affords plenty of good nourishment, and which is not easily corrupted. When they are dried, they are harder. 3. The flesh of a *Salmon* is tender, most grateful to the Palate, easily digested, affords good Juyce, Viz. While it is young. 4. *Trouts* are the best of al fish that breed in the fresh waters, easily digested, of much good and thin Juyce: the biggest are not the best in regard of their fatness and clamyness. Those are most esteemed of, which are sprinkled with red spots and have red flesh. 5. *Gudgeons*, afford wholsome nourishment, are of good tast, easie to digest, and abide not long in the stomach. 6. *Millers Thumbers* are like to Gudgeons. 7. A small *Pike* or *Pickerel* has a very short flesh, not hard to digest, and easily distributed; some count it to have an hard flesh. The River Pike, is better than that of the Pond. 8. The *Sea-Perch*, is according to *Diphilus*, tender, not ranke, easily digested; the River Perch has flesh that is not indeed, so short, yet is it not hard to digest, nor is it of bad Juyce; others say it affords a weake nourishment which is easily dissipated. 9. The *Carpe* has moist flesh, full of a watty rather than a Clammy Humor, and has much Excrementitious Juyce. That is most commended, which breeds in swift streams and pure waters. It must not be eaten with variety of other meats, but by it self. 10. The *Barble* has exceeding white flesh, easily digested and distributed, and has no ill nourishment or Juyce. 11. The *Lamprey* is clammy: but if it be well sauced and dressed, it affords a pleasing and well tasted Nutriment. Some would have it to be strangled in wine. 12. An *Eele* has soft and sweet flesh, but clammy, full of Fat and moisture: some say there is something in an Eele, which not taken out is destructive to the bowels of the Eater. Howbeit the Ancients so highly esteemed this fish, as to account it the Helena or prime dish at their feasts. 13. The *Tench* is by *Ausonius* cal'd the poor mans comfort. It is thought to be of so bad Juyce that the feeding thereon should

should cause Feavers. 14. The *Herring* has a white and short flesh, of good tast, not hard to digest, of good Juyce. Being salted or hardned in the Smoake, it degenerates from it self. 15. The *Sturgeon* has hard flesh, Fat and glewith. It affords no bad Juyce, only tis hard to digest: the younger are most pleasant, and afford much nourishment.

III. The other Members of Fishes are. 1. The *Head* which is mans meat, in some fish. The Mullet was anciently bought, only for his Head and Liver. At this day the Head of a Salmon, of an Umber or Halibut, and of a Carp, are accounted dainties. 2. The *Tongue* which in a dolphin is Fat and tender; in a carpe if it be roasted, tis very fat, & provokes lust. 3. The *Eyes* which in a Salmon are tender and Fat. 4. The *Beards*, which *Helio-gabalus* had served up by whole platters full, instead of smalladge and Water-Cresses and Fenu-Greek. 5. The *Throates* or parts between the brest and Neck, being salted, are pleasing to the Palate, and according to *Xenocrates* are hardly corrupted. 6. The *Liver* which in stock fishes or Cods, is counted better than in other Fishes. In the *Silurus*, tis so sweet as to overcome the Stomach. That of the *Wolfe fish* roasted and sauced with Juyce of Orenge, is not inferior to a Goose Liver. Upon the Livers of River Lampreyes, the revenues of *Princedomes* have been anciently laid out. 7. The *Sides* of the sturgeon and Lamprey are commended. 8. The *Bowels* without which the Gilthead has no tast, and in the Dolphin their smel is delightful, as also their tast resembling Violets. 9. The *Belly*, which in the fish they call *Hulo*, tastes like Potke. A dish has been invented of the Navils of the thin Fishes, cut out of their bellies, and barrelled up with Salt, Vinegar, and Fenne. 10. The *Roes* which in the Pike, Hufon, Scarlet fish and others, are commended. 11. The *Belly* which is fattest in the Tuny-fishes as *Hicesius* informes us. 12. The *Guts*, which are commended in the Salmon, Pike, Cod, and Conger. 13. The *Flankes and Groins* which *Horace* commends in a Turbot. 14. The *Loins* which *Antiphanes* relates to have been among the dainty dishes of Old. 15. The *Taile*, which is desired in the Pike or Thym. The Proverbe is, The Head of a Carpe, the middle of a Scordil, the Taile of a Pike, are the Gluttons delight. 16. The *Skin*, which in a Tench, is by French Women, preferred before any flesh. 17. The *Eggs* or hard roes of

Perches roasted on a Gridiron; of Carpes boyled and fried; of the Wolfe-fish, Salmon, Hufon, and Marde, Pickled, were a dish of esteeme among the Ancients. Those of the Barble, Gripe the Belly intollerably, those of the Pike make it twel. And so much for Fishes.

IV. Among bloodless Creatures, I shal only reckon *Oysters*, *Snails* and *Crabs*. I *Oysters* by the Salt Juyce they have in them, do provoke the Belly to stoole, they stur up appetite, and incite Lust, nourish little, and make some trouble in the stomach. II. *Snails* are of an hard flesh and difficult to digest: but if digested they nourish plentifully, if often Eaten. They breed thick and black blood. That which is said to be good in Consumptions is in the broth of their Flesh, especially their hinder parts. In which there is a clammy substance like hardned cheese, easily melted, and soon chewed, tender, soon digested and very nourishing. Those are best, which are least white, and which are found in Vineyards and Orchards. III. *Crabs* which have no *Tailes*; and *Lobsters* that have *Tailes*, do not much differ. They are hard to digest; being digested; they nourish much, but breed thick Juyce. Touching *Creeping Creatures* and other things, used for food in other Nations, I shal not speak.

Point, 3. Of Sauces, Bread, and the time of Eating.

The third thing to be explained touching Diet, is *Sauces*, whose Differences, and matters of kinds, I shal now reckon up. I. As to the Differences of *Sauces*, they are, either, 1. *Simple*, which are made of the mixture of one only thing with our Meat; or *Compound*, which consist of two or more. The former are heating, cooling Temperate, Sharpe, Aromatick, Bitter, Salt, Harsh, Acid, Sweet, Fat. The latter are wel nigh more in Number, viz. *Dipping-Sauces*, *Licking-sauces*, *Sugard-sauces*, *Sage-sauces*, *Garlick-sauces*, *Onion-sauces*, *Tart Sauces*, *Vinegars*, *Sal-lads*, not to speak of your *black broaths*, *Sau-cages*, *Pap-Sauces*, *Bononia Sawcages*, *Westphalia Gammons*, of which see *Apicius* and *Athenaeus*.

II. The Matter of condiments, are things dug out of the ground, Plants themselves, their Juyces and Honey. Of things dug up is Salt, which attenuates clammy meats, gives tast

tast to those that are tasteles, dries such as are moist, takes away the strong smell of such as stinke. The best is white, transparent like cristall, thick, void of smell, which has an even acrimony joyned with a certain sweetness. If we beleve the *Mauritanian Physitians*, it dims the eyes, wasts the seed, and raises the scab. II. *From plants*, there is, 1. *Peper*, especially the black. Which excellently helps concoction, and is exceeding good for flegmatick natures. That is best which is most heavy, ful, black, without wrinkles. 2. *Ginger*, whose Heat is thought to last longer than that of peper, corrects the Crudities of the stomach, and provokes Lust. 3. *Cloves* with which neats tongues, Cowes-udders, &c. are pricked and stuck. They heat with a kind of Astringtion, and helpe the stinking of the Breath. 5. *Cardamoms*, which are sharpe and bitter in tast. 6. *Nutmegs*, which are used to the same intents as the former. 7. *Saffron*, which helps the concoction of meat, breeds a fresh colour, opens the stoppage of the liver, and has a narcotick or stupefactive Quallity in it. 8. *Elder*, whose first buds pickled in vinegar are kept as a sallet, and move the bely to stool. 9. *Capars*, which being pickled with salt, oyl or oximel, provoke appetite, void the flegme which is contained in the Belly, and ease the obstructions of the Spleen. Touching *Water-Creases, Onions, Garlick*, &c. see what has been said before. III. *From the juices of plants* there are, 1. *Sugar*, which lenifies sharpe things, blunts the fervor of things biting, makes salt things more delicious, overcomes harshness, gives tast to things insipid, but withal produces choler in such as are of an hot Nature; and makes black, Furrs, and loosens the teeth. 2. *Oyl*, which if pressed from full ripe olives, it affords nourishment suitable to our Natures: and is fit to correct the bad quallities of other meats, and of herbs. Also it molifies and loosens the Belly, it takes away all Asperity, it helps such as are bruised, and mitigates pain. 3. *Juice of unripe grapes, Cisterns, Lemmons*, and of *Crabs*, which the French and Itallians much use, doe coole, bind, and helpe the extravagant longings of women. Hereunto belongs *Vinegar*, which is extreame cold and piercing. The eagerness thereof is blunted, with a peice of toasted bread, wine, raisons, elder flowers, roses, sugar, and such like things. Tis hurtful for melancholly persons, and women that are subject to mother fits. IV. *Honey* is of an hot nature, saving that which is white, and seems convenient for

healthy people. It easily turns to choller, and therefore it is neither fit for hot natures, nor hot parts, otherwise it has a power to cleanse and resist putrefaction. Mead is made hereof.

IV. In the *Fourth* place we reckoned BREAD, of which in respect of the Matter and waies of making, there are sundry differences.

I. In Respect of Matter. 1. Such as is necessary. 1. It is made of fine flower, and which is most nourishing to the Body. 2. That which is made of bolted meal, and finest flower being taken away, and is next in goodness to the former. 3. Household bread which is made of the finer sort of bran, and nourishes less than the former, but descends better through the belly because of the branniness. 4. Of *Courser bran* which nourishes least of all, but goes soonest through the belly. 5. Bread of altogether, which nourishes very well, and soone passes through the belly. 6. *Barley bread*, which if it be made of the most excellent barley, is the less inferior to wheaten bread; if of loose and light barley, it is like the wheaten bran bread. 7. *Rye bread*, which if it be black and heavy it burthens the eater, is of sad and thick juice, and breeds stones in the kidneys. II. In respect of the matter prepared and qualified, it is. 1. *Leavened bread*, which is lighter and sooner distributed, than the unleavened. 2. *Unleavened bread*, which is of a contrary Nature. 3. *Soure leavened*, which is also hard to digest, and lies heavy upon the stomach. 4. *Salted bread*, which is lighter than the unsalted. 5. *Unsalted bread*, which is apt to breed obstructions. I shal not speak of *Saffron-bread, Eye-bread, Butterd-bread, Cheese-bread, Sugard-bread*. Hereto belong the parts of bread. 1. The *Crum*, of which that which has been here said of bread is to be understood. 2. The *upper crust*, which drinks up moisture in the body, and sharpens the Heat thereof; but if it be scorched and burnt, it breeds adust humors and black choler. 3. The *Lower Crust*, which is of like nature with the former.

II. In Respect of the preparation, bread is. 1. *Savory*, in which the leaven and salt are well mingled. 2. *Unsavory or tasteless* which is contrarywise ordered. 3. *Well kneaded*, which is neither too little nor too much, but moderately wrought. 4. *Ill kneaded*, which obstructs, puis up, burthens the stomach. 5. *Baked in an Oven*, which because its thoroughly bak't is the best of all others. 6. That

which is baked on tiles, or in a portable oven; which because it is not so well baked in the bottom, is worse than the former. 7. That which is baked on a gridiron, or on the hearth, is bad, because the outer parts are scorched and the inner parts are dough-baked. 8. Baked under the ashes or embers, from which it receives a bad quality. 9. Biscott or Bisket, which is drying, and if made of fine flower, it affords very little excrement. 10. New Bread, which if hot, causes thirst, and breeds winds and suffocations; if cold, is wholesome to feed on; if it be two or three days old, is hard of digestion, because of its dryness. 11. Old bread which is hard and moldy, breeds a melancholly humor; and binds the belly. 12. A Great Loafe, because the fire has not sufficiently digested the moisture thereof, lies heavy upon the stomach, and raises wind. 13. A Little Loafe, because it is more than ordinarily crusty round about, produces a dust blood as the material cause; and makes the Body dry. 14. A Loafe of a middling size, which is most commended. 15. Light and spongy, which nourishes lightly, and makes no obstructions in the bowels. 16. Solid and heavy, which is worse than the former. 17. The best bread therefore is that which is made of fine white wheat meal, the wheat being ripe, not very new, grown in a fat soil, not infected with moaths, dust, cockel, danel, or frost, not wet with rain, or musty with keeping; being well kneaded, leavened and salted.

V. In the first place we are to consider of the TIME OF EATING, which varies according to the several Customs of nations. The Hebrewes seem to have eaten twice a day. Among the Greekes even so long as since Homers daies, their times of eating were distinguished into dinner and supper. The latter Grecians did eat oftener. The Romans had their Breakfast, dinner, after noones bever, their Supper, and Rere-supper. Our Age follows the Custom of the Romans, yet thousands there are, that content themselves, with a dinner and supper only. And so much may suffice to have spoken of meats. They that would know more, besides Galen of the faculties of meats, let them consult Morellus upon Schola Salerni, Bryerinus of Meates, Julius Alexandrinus of wholesome diet, and Ulisses Aldrovandus de Animalibus.

Article. 3. Of Drink.

Drink is a thing non-natural, restoring the moist substance of Mans Body, and quenching his thirst.

Touching which two things are observable. *The Necessity thereof to preserve Health, and its kinds.*

I. That Drink is necessary for Health, is hereby manifest, in that it restores the moist substance of our Bodies, which daily wafts away, it quenches natural thirst, it carries the fat and thick moisture through the narrow passages, it causes the mixture, digestion, and liquefaction of meats in the stomach, and prohibits the inflammation of that same fat juice which is ordained to nourish the Body.

II. The kinds of drink are, 1. Water, 2. Wine. 3. Beer and Ale. 4. Mead. 5. Liqueurs made of Apples, Peares and such like fruits.

I. Touching water, two things are considerable, viz, its differences, and Correction. I. In respect of the Differences, water is either, 1. Rainwater, which if stormy and cloudy is condemned: if it come down with thunder, it is exceeding light and thin, because the Sun drinks up and draws out the most subtil parts; yet is it impure and subject to putrefaction, because divers vapors drawn up by the heat, are mixed with the Raine. 2. Snow and Ice-water, which because the most tubile and light parts are dissipated, is thick, and hurts the stomach, and breeds greivous diseases, of the joints, nerves and bowells. 3. Water gathered in Cisterns, which has much feelings, is slow in passage, oftentimes has a strong taste and smell of chalk, and sometimes breeds little animals. Pit-water, which because it mounts not above the Earth, it is thick, and sticks long in the bowells. Observe that sweet water springs out of marley grounds, cold water out of stoney, and thin muddy water out of gravelly places. The best and most hopeful comes from ground that has red stones, well tasted water comes from sandy ground, cold water proceeds from the bottom of mountaines and from stony and flinty places. That water is best which is hot in the winter, cold in the Summer. 4. Fountain water, which if it come out of a Rock, and runs towards the North, and is not illustrated by the Sun, it is unhealthful: if it issue directly against the Summer-Sun-rise, is wholesome: if it run in a flat and plain ground, because the Sun exhales the most subtil parts, and leaves the earthy behind

behind, is not so wholesome: if it run through leaden pipes, 'tis hurtful: if through Sand and pibbles, and draws no dirt with it, 'tis commendable. 5. *River water*, which for the most part is mixed, as rising from many springs meeting together, and from snow dissolved in the mountains, and rain water to boot. Its crudity is corrected by the beames of the Sun, which play upon it while it runs such a long tract of ground. It varies according to the variety of Rivers which flow into it, and the Sundry lands it run through. 6. *Lake and Pool water*, which is the worst of all others, for it is thick and crude, and many times pestilential. It offends the Stomach, obstructs the bowells, corrupts the Humors, and many times is the Cause of putrid Feavers. 7. *The best Water*, is that which is transparent, void of all strange taste or smell, is soon cooled, soon heated, is light, and in which flesh and fruits are soonest boyled. II. *The Correction of waters* is performed by boyling, by which not only the Crudity and Coldness is amended, but also the earthy and bad parts are separated, which when the water cooles, settle to the bottom. See of this subject, *Pamphilus Herilacus*, touching the qualities of water and wine.

II. *There are certain differences of wines*, I. In respect to the place where they grow, there is 1. *Vinum Falernum*, which is of an excellent juice. 2. *Wine of Crete or Malmsey*, which eates a cold stomach and cures the Colick. 3. *French wines*. 4. *Rhenish wines*, which are thin, most fit to strengthen the Heart, and restore the forces of the Body. 5. *Hungarian wine*. 6. *Spanish wine &c.* II. *In respect of its substance*, wine is, 1. *Thin*, which easily penetrates, suddenly, restores strength, opens the passages, provokes sweat and urine, but nourishes little. 2. *Thick wine*, such as is the black, red, sweet and harsh, which nourishes most; but it sticks long in the body, heates the same, and dries it, and sometimes breeds obstructions. II. *In respect of color*, wine is, 1. *White*, which heates less then the yellow and Gold-coloured, if besides the color, it be withal thin of Substance. 2. *The Gold-colored* which is next to white, and if it be thin withal, is excellent. 3. *Red*, which moderately heates, breeds good blood, and troubles not the head: if it be thick withal it hastens obstructions of the spleen and liver. 4. *Pallet wine*, is much of the same nature. 5. *Black wine*, which is of a thicker substance for the most part sweet, very nourishing, and

breeds thick blood. While it sticks long in the bowells, it obstructs them, and fills the head. III. *In respect of Taste*, 1. There is *Sweet wine*, which nourishes well, is pleasing to the palate, bowels, lungs and joints, nor disturbs the Head, but because it is thick, it breeds obstructions, and is easily turned into cholor. 2. *Harsh wine*, which has a weaker heat, staves longer in the belly, and pierces to the passages of urine, is good for fluxions; but because it hinders spittle it is not good for diseases of the Chest. 3. *The midling sort*, which is best of all. IV. *In respect of smell* it is, 1. *Fragrant*, which restores strength by its very smell, encreases the spirit, strengthens all the faculties. 'Tis good for old people, save that it fills the head, and weakens the nerves. 2. *That which has no smell*, which is neither so greedily drawn by the stomach, or affords matter to fit to engender spirits. 3. *That which has a strange smell*, which is hurtful. V. *In respect of Age*, it is, 1. *Must*, which by its windyness breeds the cholick, and hinders the voidance of Urine. 2. *New wine*, which yet retains the sweetness of must, is excrementitious, not easily distributed into the body, and breeds fluctuations therein. 3. *Old wine*, which works upon the nerves and troubles the brain. 4. *Middle-ag'd*, which is best for all Intents and purposes. In which nevertheless there is great variety. Some beare their Age, others soon loose their strength. III. *Beer* is in use among the Northern Nations where little or no wine growes. 'Tis made of wheat, barley, rie, oates, either simple or mixed together; and is preserved with Hops. It has also sundry differences. I. *From the matter*. 1. Some is made of *wheat* which nourishes, heats and moistens more than that of Barley; but it breeds a more clammy juice, causes obstructions, provokes urine, and moves the belly to stoole. 2. *Barly-malt beer*, which heats less, by reason of the barly; but because it has much hops, it becomes not a little heating, affords more thin juyce, and is more diuretick. 3. *Oaten-drink* which is of the same quality with oats. 4. *Rie-beer*, which nourishes very much; but breeds obstructions and stops the Urine. Hereunto belong the differences of beer, from the waters it is made of, viz. poole, river, pit water &c. which also varie the faculties and strength of beere. II. *From the Age*, it is, 1. *New*, which is unwholsome, especially if it be troubled: for it stops the passages, and is bad for such as have the stone. 2. *Well-purged and ripened*, which is more whollome.

III. In respect of the place where 'tis made, we have, 1. *Poland beer*, which is made for the most part of wheat, nourishes well, and Heates moderately. 2. *Dantzick beer*, which is like a syrup, nourishes such as are used to it very well, in others, it causes thirst. 3. *Hambrough beer*, which is commonly made of wheat, is of good taste, makes a man have a fresh colour, expels the urine; if it be taken too largely, it makes a man have a red face. 4. *Labicks Beer*, which is too strong, makes the Head heavy, and hurts a mans health. 5. *Goslar beer*, which at the first tasting seems sweet, and soon after imprints a winy taste upon the tongue. It is healthful. 6. *Emden beer*, which is subtile, clear, and piercing, at first bitterish, afterwards sharp, it drives forth urine and choler: and therefore 'tis commended in the Jaundice, and in Fevers. 7. *Brunswick beer*, called Mum, differs not much from the former, save that it is thick and more windy. 8. *Rostock beer*, which quenches thirst, expels the Urine, nourishes little, and is good in the summer time. 9. *Servestan beer*, which hangs long in the hypochondria, and sometimes causes sharpness of Urine. 10. *Newburg beer* in Thuringia, which is well boyled, and nourishes; if it be taken too plentifully, it causes dimness of sight: some have grown blind by too much use thereof. 11. *Erfurt beer*, which conduces very much to health. 12. *Torgate beer*, which breeds good blood, and by its aromatical taste strengthens the principle members. 13. *Wittenberg beer*, which is like the Rheue beer, being ill-boyled. 14. *Rauschenburge beer*, which is commended against the stone. 15. *Paderborn beer*, which breeds thick blood. 16. *Beer of Brabant, Gelder, and Zutphen*, which breeds the scurvy. 17. *Flanders-beer*, which is very commendable, especially their double beer. 18. *English beer*, which makes the drinkers fat. 19. *The Rhenish beer*, which is for the most part base and hurtful. 20. *Colen beer*, which is better than that of Brabant. It pals over the differences taken from the vessels, which also change the faculties. They are kept, sometimes in pitched, sometimes in unpitched vessels. *Mead and Metbeglin*, do for the most part Heat more than wine, especially if spices be added thereunto. But it easily turns to choler, because of the Honey.

Chap. 2. Of non-natural things done by a Man.

Non-natural things which are done, are passions of the Mind, Motion and rest of the Body, sleepe and waking, which are of great moment towards the preservation or violation of Health. Touching affections of the Mind, and their Action upon the Body, these things are chiefly to be observed. 1. That Moderate affections preserve health, and make no change in the Body. 2. Such as pass their bounds, oft times disorder the body, and sometimes bring sudden Death. 3. If you consider the good Affections or passions, 1. Love if it exceed, because it vehemently inflames the spirits in the Heart, endeavouring to draw the thing beloved to it self, and therefore sending the spirits forth to meet it, does often times cause palpitation of the Heart, sometimes madness, fainting, &c. 2. Cheerfulness, if it be moderate, recreates the Heart and vital spirits; if it be sudden, and in too great a quantity, it so dissipates the spirits, which the Heart therein sends into the outward members because of its over great dilatation, that it oftentimes brings death. 3. In Evil Affections or Passions. 1. Sadness by little and little, dissolves the spirits, cooles and dries the body, spoiles digestion, causes watching, and breeds melancholy diseases. 2. Fear, dissolves the strength of the Body, by reason of the sudden recourse of the Heart, Blood, and spirits, into the outward parts, causes a small pulse with refrigeration of the external parts, and is sometimes the cause of sudden gray haire, even in young Men. 3. Anger, in which the Spirits and Blood do as it were boile in the Heart, and are violently moved, from the inner to the outward parts: it agitates the spirits and Humors, Heats the whole body, and breeds Fevers. Tremblings of the joints, and Palpitations of the Heart, do often invade angry persons. Also women are thereby brought into danger of Abortion. Anger hardly ever kild any body, because the Spirits are therein freely and forcibly moved; if any died upon occasion of anger, of necessity there was some other natural disorder in the body.

II. That Motion is necessary for Health, is hence apparent, in that by encreasing natural Heat, it furthers Nutrition; by moving and agitating the Spirits, it discusses vapors and excrements;

excrements; it makes the body after a fort hardy, by adding solidity to the parts, by their mutual Attrition. Now according to its Differences, it works diversly upon the Body of Man. The best is that which exercises all parts of the body alike. The next to that, is whereby all parts are moved, but not equally; the lightest of all, is that which exercises one only part. I. *Too much Motion*, exhausts the spirits and solid parts, cooles the whole body, dissolves the strength of the Muscles, Nerves, and Ligaments, and hurts the Eye-sight. II. *Swift motion* renders the body thin and compacted. III. *Slow motion*, rarifies and encreases the Flesh. IV. *Veberment motion*, makes the body hard, lively, but leane withal. V. *Continued and equable Motion*, because the members are weakened thereby, as being much, it wearies the more. VI. *Unequal motion*, because it is parted with spaces of rest, wearies less. VII. *Distinguished and ordinate motion*, brings less wearyness, since Interruption brings rest, and the rest is cause of less wearyness. VIII. *In hot places* it burns more, in moist places it moistens, because the bodies being rarified by exercise, are most readily disposed to receive all the qualities of the Air and Places. IX. *Among motions caused by a mans self*, I. *Leaping without Intermission*, stirs up natural heat, but hurts the Head by concussion and the Breast by compression, while the back is bowed. *Leaping on high*, is good for the Hips, but bad for the breast; *Downwards to leap*, cleanses the Head from superfluities, and strengthens the thighs. *With Springing*, it is good for old Diseases of the Head, and brings matter which tends upwards, downe into the lower parts. 2. *Running*, if it be *Veberment*, is good for Fat and moist bodies, but it is bad for such as are troubled with any kind of Head-ach. If *Running* be moderate, it excellently warms the Body, excites apperite, and though at first it move defluxions, yet it afterwards in tract of time stops them. A long course fore right by little and little performed, diffutes the flesh; but renders the bodies thicker. *Backward*, if it be gentle, it is good for the Head, Eyes, stomach, Loins. A *Circular* motion distends the flesh and belly, and very much offends the Head, *uphill*, tis bad for the Breast and thighs. *Downhill* it very much affects the head, it shakes the bowels, troubles weak hips: upon *plain ground*, it does all that has been said. The body being covered, by moving sweat, it moistens and heats the fleshy, but it makes the body it colored, because the pure air does not come

at them, to cleanse the same. The body being naked, it draws out great plenty of sweat, it brings away the humors in invisible exhalations and does more burpe the body. 3. *To exercise ingirt* by hurling a weight, by reason of the vehement straining to throw the same, the vehemency of the motion and bending of the muscles, does make limbes to grow firme, and purges them from excrements, but this exercise must not be used by such as have weak Breasts and Kidneys. 4. *Darting* is useful to get a good habit of Body; and therefore *Aesculapius* and *Apollo* were thought to be the first Masters of darting. 5. *Moderate walking abroad, continued without resting*, makes the body pure, it helps defluxions and suppression of the countes. *Swift walking*, does heat much, and abates the greatneis of the flesh. *Slow walking*, is convenient for ancient and weak people: because it softens bodies exhausted with immoderate Labours, and purges them, by opening the Pores. *Too much walking*, takes away the trembling of the body, dispels winde, and very much disorders weak heads. *Much walking* does help such as are troubled with Infirmities of the Head and Chest, and whose lower parts are not nourished. *Little walking*, is fit for such as must walke after meat and who feel an heaviness in their bodies. *Long walking right out*, is good for the head, but it does too much drinke up the humidities. *Long and Quick* is good for the Hickup; *A short walke* compounded of motion and rest, by reason of the frequent turning and returning, is laboursome, and weakens the head by frequent turnings. *With labour of the thighs and going upon the heels*, it is good for a moist Chest and a convulsioned wombe. *To goe on tiptoe* is good for such as are bleat eyed, and costive in their belly. *To goe uphill*, does more weaty the body, because it is as it were loaded in that motion, it moves sweat and hinders the breath, and it is exceeding bad for weak Knees. *To walk downhill*, draws from the Head to the inferior parts, but it weakens the Thighs. *To walk through even Plains*, affects the body by the Universality of the Motion, such motion is sooner finished by reason of its affinity with Nature. *To walk upon uneven grounds*, is good for such as are too weary with walking. *walking over rough grounds*, fills the Head. *Walking over deep Sands*, makes most of all to stablish and strengthen all the parts of the body. *To walk in a close place*, subjects a man to imtemperate, vitious and thick aire, which fills

the whol Body. To walk in the open Aire, if by the Sea-side, it dries, and attenuates thick Humors; if by Lakes and Rivers, it moistens, but is bad for Epileptick persons; if in the maine Land, it is not so good as by the Sea; if in the dew, it moistens, not without dammage; if in places not subject to the wind, Causes Humors to exhale, and digests Excrements, and is commended in Collicks proceeding from a cold Cause; if in the North wind, it Causes coughing, but it quickens the senses; if in the South wind, it fills the Head, and loosens the Belly; if in the West wind, tis the wholesomest of al other; if in the South-East wind, it smites the Body; if in the Sun, it hurts a mans Head, it melts what is hot, and makes that which is dry, yet dryer. Touching walking in the shade observe.

- I. That we must avoid trees full of dew; because the surface of the trees being melted by the dew, an harmful liquor drops upon the bodies of such as walk under them, which bites and Chops the outward parts.
2. That walking is most wholesome, which is performed, under the Myrtle, lawrel, or bay, and among sweet-smelling Herbs. When the Skie is clear, it lightens a man, exhales Vapors through the pores, makes a man breathe wel. When the Skie is Cloudy, it causes heavyness, fills the Head.
- In the Morning, loosens the Belly, expels sluggishness caused by sleep, procures appetite, and is good for moist constitutions, for it dries up the Humors out of the passages. An Evening walke prepares a Man to sleep, disperses inflations, and hurts a weak head.
- After Meat, a little walk, is good for those that are accustomed thereto, and whose meat does hardly descend.
6. Standing upright, univerrally considered, is bad for such as have a weak Back, or are troubled with Inflammation and Ulcers of the Kidneys: Considered particularly, before meat, it is good to void the Excrements of the Belly, for persons asthmatical, and to provoke Urin, and strengthens the Legs; but tis not fit for such as are subject to swimings in their Head, because in that posture the Vapors mount into the Head. After meat, if it be Moderate, it assists the descent of Meat into the bottom of the Stomach; if it last long, it sends plenty of Vapors into the upper Region of the Body; it throws down a multitude of Humors, into the nether parts, weakens the Chest, and vitiates the Bladder, and the whole Action of making Water. To stand in the shade has the same effect as walking therein, the difference is on-

ly in more or less. To stand in the Sun, does burn a man more in the Summer time, then to walk therein, and in a body impure, it very much hurts the Head, &c. X. Of motions caused by another, there is.

1. Riding on horseback, which if it be quiet and slow, breeds great wearyness, and makes men unfruitful as to generation; if the pace be Swift, and not very frequent, it makes those that ride, enclined to bodily lust, by continual motion and rubbing of the genital parts, and shakes the body in a wearysome manner, and is very bad for the Chest: if it be upon a Trotting horse, it offends the head, the Neck, the back, and Buttocks; but it brings gravel from the Kidneys: to Ride full Speed, or on Gallup is too heating, duls the senses, and offends the Eyes.
2. Gestation or being carried, in general, in persons found and sickly, encreases Natural heat, and discusses the multitude of the matter: but in persons that cannot sleep, it brings rest, by digesting those excrements, which slip from the Head into the Stomach, &c. Particularly. Riding in a Coach, if it be not violent, is good in diseases of the Head and fluxions of the Bowels, but it is hurtful to Epileptick persons, because the motion of the wheels makes them giddy: if a man ride with his Face to the hind Wheels, tis good for a weak sight, and helps much the Obluscation thereof. If it be very fast, Celsus commends it to make a man lean that is over Fat. In an Horse-litter tis convenient for healthy people, that are to follow their business after dinner, and it was anciently the manner to carry sick people on that fashion in an horse-litter. Lethargick, and Nephritick persons lay along, &c. For so the Morbifick matter was made fit for Expulsion; those that were troubled with some light and long lasting Diseases, and were in the perfect declination of Feavers did sit. To be carried in a Chair or Sedan is good for cold Natures and which evidently decline. But of al these Exercises, consult the learned treatise of Mercurialis de Arte Gymnastica, which I shal peradventure over-look, and cause to be again published with some notes of mine. IV. I shal not need to speak of Rest; al that can be said, may be collected by any one, from what we have spoke of Motion.

III. Sleep is also necessary for preservation of Health, and likewise to refresh the wearied Members of our Bodies, and to restore the spirits, which are the Soules Instrument, in the performance of her Actions. If it be moderate, not only the wearied forces of the body are

are thereby refreshed, and the spirits washed with dayly labors, repaired; but also the heat is drawn inwards, by which means the Aliments and crude Humors are happily digested in the whol body; the whol body and especially the Bowels are sweetly moistened, and the body is made generally stronger; cards are removed, anger appeased, and the mind made more peaceful; immoderate Evacuations, saving sweat, are suppressed; and especially, sleep is good for Old people. Contrarily, *Immoderate Sleep* obscures the spirits and makes them sluggish, and stupefies the mind and Memory, and blunts the Edge of Natural heat, by augmenting crude humors, and stopping the Issue of such as are superfluous. Also sleep which is taken after the body is any waies Emptied, does dry and extenuate the same.

IV. Also *Watchings* are either *moderate* or *Immoderate*. The former excite the spirits and render them more lively, distribute the spirits and heat into all parts of the Body, help the distribution of Aliment, and further the Expulsion of Excrements. But *Immoderate watchings* consume and dissipate the spirits, especially the Animal, and dry the whol body, especially the brain, encrease Cholera, sharpen and enflame the same; and in conclusion, the heat being dissipated, they cause cold Diseases.

Chap: 3. *Of Non-Natural things Externally used.*

Non-Natural things Externally used, are, *Bathes*, *Oyntments*, *Frictions*, and *Garments*.

I. Touching *Bathes*, observe. I. That they alter as much as the Aire it self, but diversly according to the difference of Temperatures, and there is in them more Artifice than in the Air. II. That they frequently and very much hurt, Chiefly persons not used to them, *Plethorick* persons, such as are *Cacochemical*, have *Catarths*, are subject to *Inflamations* and *Erysipelas*. III. That they are made, either of *Liquors*, as fresh water, *Medicinal Fountains*, *Decoctions of Herbs*, *Oyl*, *milk*, *Wine*, &c. Or of *Vapors*, or of some solid substance, which is hot, as *sand*, *Salt*, *Pressings of Grapes*. IV. *The Vapors of fresh water*, Heats, first moistens; relaxes; afterwards Melt congealed liquors, and procures

sweat; finally, by long use, it dries. V. *Fresh Water hot*, of it self Moistens, but at the first it heates; afterwards the hot Vapors breathing forth, it cools, attenuates, and dries: *Luke-warm*, or such as is moderately warm, Cools such as are over hot, heates those that are overcold, and withal Relaxes, and used an indifferent time it fattens, and digests the Excrements beneath the Skin, and by long continuance therein, it resolves and discusses them, wherefore to hot leane Natures and to such whose heat is biting, it is good, being carried in an indifferent while; also for *Melancholick* persons, *Hectical* persons, such as have dry Feavers and are thirsty: also it chafes away wearyness, Mitigates pains, is good for Diseases of the Skin. *Cold Water* cooles, but withal stops the passages, makes the Skin hard and compact, strengthens the whole Body; recalls heat into the lower parts of the Body, by which means it helps Concoction, and is a good Remedy against hurts springing from external Causes, if we use it moderately and rightly. It is bad for such as grow, & use not good diet, nor exercise, or are inclined to crudities and stoppages, and breed sharp vapors. VIII. *Artificial Baths* are to be judged of by their Ingredients. IX. *Waters of Medicinal Wells*, do alter the parts, according to their Quality, so that the *Sulphureous* do dry, heat and resolve: the *Nitrous* do dry and cleanse, &c. See of them *Fallopian*, *Mercurialis*, and *Bacchus*.

II. As for what concerns *Anointings*, they were anciently used before and after bathing, as is every where apparent in *Galen*. But because they are now grown out of use, I shall therefore say nothing of them. See *Galen* in the second Book of the Faculties of simple Medicaments, Chap. 2. and 4. Also in the seventh Book of his Method of Curing, Chap. 6. and *Mercurialis*, in the first Book and 8. Chapter, of his *Gymnasticks*.

III. The effects of *Friction* or *Rubbing* are various according to the Differences thereof. 1. *Hard* friction hardens the Body, contracts the flesh and makes it compact. 2. *Soft*, Softens, Loosens, and dissolves the same. 3. *A middle Sort*, has an effect between both. 4. *Much* Rubbing, lessens the Flesh, dissolves the same, and Causes leanness. 5. *Little*, leaves it in the same Quantity it was in. 6. *Indifferent*, encreases the flesh. 7. *Morning* friction is best used after the voidance of the common superfluities of the Body, being useful for such as are dried, and find a weary somnolence upon them.

them. *Evening Friction* is good for wearyed, dried perions, and such as nourish not.

IV. *Hippocrates* treats of *Garments*, where he speaks of the ambient Aire, in the sixth Book of his *Epidemicks*; I conceive best to place the consideration thereof among things externally applied to the body. All *Garments* in general, do in some measure heat the body, both by keeping off the cold Air; and keeping in the steams of the body, and introducing a true and genuine Heat. The effect of *Cloaths* varies according to their Differences. 1. *Silk-Taffaties and Grogarans*, do heat, and because they are soft and tender, they soften. 2. *Plush and Velvet* by how much they are deeper and richer, so much the more they heat. 3. A woolly garment heates and dries much. 4. A Garment of *Skin*, if full of hairs, is warmest of all other. 5. A *Scarlet* garment, calls forth the *Spirits and Humors*, with which it has Analogy from the Centre to the Circumference, and therefore is accounted hot. 6. A *Perfumed* Garment hurts an hot brain, and breeds the *Head-ach*. 7. A *Linnen* Garment whitened with *Lime*, does bite the *Skin*, and Causes an *Itch*. 8. An *Hempen* Garment, is more dry than one of *Linnen*.

Chap. 4. Of Non-Natural things which are voided and retained.

Non-Natural things which are voided and retained are, both those which in the nourishment of the Body Nature retains to restore the decayed substance thereof, as also those parts which she separates and voids forth as unprofitable.

Touching them, observe in general. I. That *Excrements* do vary according to the *Concoctions*. Some are simply such, as *Urin*, *internal Vapors*, *fumes*, *Dandrifs*, *Sweate*, *Moisture*, *Ichor*, *Tears*, *Flegm* in the *Eyes*, *Menstrual blood*, *Hemorrhoid-blood*, *spittle*, *Snivel*, *Pose*, *Droppings of the Nose*, *Eare-Wax*, *Dung*: some are for the sake of *Children*, as *Milke*, *Seed*, *Mothers-blood*. II. That they are necessary in point of health, which continues in good case, if they be conveniently voided; but is prejudiced, if they be either retained, or unseasonably voided forth.

Particularly, three of them are most considerable, *Viz. Excrements of the Belly, Urin, and Venereal*. I. The *Excrements*

of the *belly*, if they are often voided and carry with them the *Vicious Humors*, and so lighten the *Body*, they confirme health: if too frequently and too long, the body is defrauded of necessary *Aliment*, and begins to pine away, the forces of the body are weakened, and many times the guts are as it were shaved. If not in due time, they hinder digestion by putrid vapors, hurt a weak head, and breed molestation to other parts of the *Body*. II. The *Urine*, if too long kept in, does not only burthen the bladder and neighboring parts, but oftentimes does so stretch the same, that it cannot afterwards contract it self. And in case the *Reins* do not draw unto themselves the *Wheyish moisture*, remains mixed with the blood, and being spread all over the *Body*, it affords matter for the *Dropsie and Cachexy*. III. *Seed* unseasonably retained, causes heavyness of the whole body: and if it be corrupted, it Causes most greivous accidents: being voided in too great a Quantity, it dissipates the natural heat, weakens the whole *Body*, heaps up crudities, hurts the *Nerves*, brings the *Pallie*, and weaknes of the mind.

Title, II. Of the Method of preserving Health.

Chap. 1. Of preservation of Health in general.

The Method of preserving Health, is a Doctrine which prescribes rules how to use the *Non-Natural things* in such manner as to preserve the body in health.

The *End* thereof is therefore, the *Conservation of Health*, which consists in *Preservation of the temper of the whole body*, and all its parts, and of their specificall proprieties and occult qualities, and of the due shape of the *Organick parts*, and of that unity which is common to both.

Those *Precepts*, are either most *General*, *General*, or *Special*.

I. The most *General*, are as it were common principles, by which convenient diet is governed, and they are these following. I. That whatever is according to *Nature* must be preserved. II. That we must alwaies aime at a *Mediocrity*. For too much of any thing is an enemy

Enemy to nature, which *Phocylides* excellently expressed, *Eate and drink and discourse with moderation. Moderation is the best thing in the world, and Excess is destructive.* III. That sudden changes are to be avoided. For much at once, or suddenly, to empty or fill, to heat or cool, or any other waies to alter the body, is dangerous, as *Hippocrates* has it in his second book, Aphorisme 51. IV. We must not lightly alter Custom. For Custom is a new nature, and things to which we have been long time accustomed, though bad, are not so troublesome as those to which we have not been used, as *Hippocrates* in his 50. Aphorisme of the second Book, instructs us. Now after what manner Custom is a new Nature, and what power it has over our actions natural, vital, and animal, and over the parts of our bodies, see in *Renatus Moreau* upon the 15. Chapter of *Schola Salerni*, p. 215. and *Senertus* in his *Paralipomena*, page 48. V. Bodies perfectly in health, must be cherished with things like; such as recede from the exact state of Health, ought by little and little, & moderately to be reduced to a contrary condition. VI. We must so far be careful to preserve occult proprieties, as that the temper of the body may not be hurt. VII. The inbred Heat of all the parts, must be preserved with things moderately hot, and moderately astringent.

II. The General precepts concerning the nonnatural things, will be delivered best according to their order in which we reckoned them, in the foregoing Title.

I. The Air therefore, 1. Must be chosen temperate, pure, not stinking, free, as being most healthful; and that air must be avoided which is full of corrupt exhalations. 2. We must by all means avoid the chopping out of an hot air into a cold, or out of a cold into an hot. 3. A cold air must be altered, by a fire, by hangings, by a stove; an hot, with cold water poured out of one vessel into another, or sprinkled upon the floor, by strewing of roses, water lillies, boughs of willow and *Agnus Castus*. A moist, with a bright fire, and perfumes; a drie, by sprinkling of water, and with moistning herbs; a pestilential, with burning aromatick woods, and frankincense. 4. Those that have leisure must walk out into the fields to enjoy the open air. 5. In the morning 'tis good to walk about the mountaines, in the evening about the fountaines and rivers; both because the Air is in those parts more pure and bright; and about the

fountaines and rivers, 'tis lightened and clarified by the setting Sun; also because in the morning, we are not very hot, by reason of the foregoing night; in the Evening in regard of the heat of the Midday sun, we may be delighted with the coole air of the waters. II. Touching meat, we must observe some things in general, and some in special.

I. In general observe, 1. That we must choose such meats as are most temperate and familiar to our Natures, such as well bak'd bread, flesh of beasts, and such things as they afford for food, fishes, &c. Of bread the best is, that which is well leavened full of eyes, well kneaded, and well baked in an oven not too hot, sealed indifferently with salt, and made of the best wheate. 2. Also we must use a most simple diet, and of several sorts, to avoid satiety, provided that it be not at the same meale of different substances, and different qualities, but of the same nature, that it may be digested with the same heat, in one and the same space of time; and that we eat not over much. 3. We must have a special Eye to custom, by the power whereof, some have fed on poyson without hurt. 4. The worse, but more pleasing meat and drink, is to be preferred before that which is better, and not so delightful. For the Stomach greedily attracts, straitly embraces, and happily digests such kind of meats.

II. Particularly we must have an Eye to the Quantity, Choyce, Sawces, Time, and Order: of which I shall treat, when I handle the diet of persons of a middle Age.

III. Of the rest, there is nothing to be said in general: only this may be added, that we must according to the advice of *Celsus*, take heed lest in health we consume, that which should assist us in sickness. It is better, daily to use moderate exercise, to prevent the collection of superfluous excrements, than to use purgations or other medicaments.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his Observations; and the London Dispensatory. All of the last Editions, Englished by me.]

Chap. 2. Of preservation of Health, in Special; and first of the good Habit.

Article, 1. Of preserving the Health of well habited persons.

Point, 1. Of preserving the Health of Infants, Children and youths.

SO much shall suffice to have said of preservation of Health in general: let us now see how health is to be preserved in several sorts of people. And this preservation is either of well constituted, or Intemperate persons.

Well habited or well constituted persons, are either Infants, both such as are in the womb, and such as are born; or Children, or Youth, or Men of Middle Age, or Old Men.

I. Children in the Womb, will fare well, if the woman with child, shall do some things and avoid other some. Among things to be avoided are, 1. Aire which is moist and southern, the stink of candles put out, and which arises from Castoreum, brimstone, and such like things. 2. Also the smell of strong herbs, as rue, panneroyal, Mint, and of sweet smelling things, if the woman be subject to mother fits. 3. The sight of things horrible and fearful. 4. Sharp, bitter and salt meates, which open the mouthes of the veins, such as are, Garlic, Onions, Mustard, Parsly, &c. as also such as cause wind; to which ad strange things, and hardly to be obtained. 5. Motion which is violent either of body or mind, especially in the first months; also vacancy of motion, which collects humors in the body. 6. The use of venery, at the begining of conception, least the child prove abortive. 7. The use of Bathes, least the ligaments of the womb should be loosed. 8. Too much laughter, or imagination. 9. Costiveness of the belly, which may be cured by the use of broaths, and of Manna. Among things to be used and done are, 1. Temperate Aire, drie rather than moist, 2. Meat of good juice and plentyful in the last months; Apples, Quinces, which are thought to strengthen the child; also the eating of toasted Figs every day before meales is commended, when a womans time draws nigh, because 'tis thought, that the secondine is hereby mote easily separated and brought forth. Also saffron and Cinnamon are commended after meales. 3. Mo-

derate use of good wine or cleare beer. 4. Motion somewhat strong in the last month, to dilate the parts. 5. Moderate use of venery about the same time. 6. A Bath of luke warme water, which opens the Genital parts, and prepares them to the birth. 7. More sleep than watching. 8. The use of such things as comfort the child; among which are Balsamus Embryones, and sweet almonds with Malmesey, as most excellent.

II. Infants new borne for the first septennarie thus to be ordered. 1. As soon as they are borne, the dung must be avoided by giving them sugar penids with oile of sweet almonds or honey, to prevent the Falling-sickness. They must not be put to a nurse, unless the mother be weak, subject to sickness, or bad manners. 3. For two years or eighteen months it must be nourished with milk, as that it be in the meane while inured to other meats. Pap made of wheat meale and milk, usual amongst us; which because it breeds gripings and obstructions, either the wheat flower must be dried in an Oven; or white bread crums moistened with Hensbroath, must be used in stead thereof. 4. Its diet for the first three yeares, must incline to moisture. 5. Being new borne, it must be washed every day; after the third month to the seventh, every other day; from the seventh month til it is weined, twice every week. 6. About the End of the first seven yeares it must be seldom bathed; and not soon after meat or drink, least crude juice be drawn into the body. 7. Wine must be avoided til the one and twentieth year, according to Plato's precept. 8. The mote it grows, the mote it must be exercised, but so as care be taken, that no member be distorted, or untimely dried. 9. As it encreases in growth, it must by little and little abate of its sleep.

III. Children require, 1. Mote solid meats, but moderately drie, lest their moisture be suddenly diminished. 2. Stronger exercise, yet somewhat less than their strength can well beare.

IV. To such as are ripe, must be given, 1. In general such kind of diet to begin with, as they are to hold all their life, that they may inure themselves thereto. 2. Meats, which in little Quantity do nourish much. 3. Stronger Labours, that their bodies may be fitted for all kind of exercises, & all sorts of weathers. 4. They must avoid Venery, which does too soon dissipate natural Heat, and cooles the body. Particularly, Students ought to have a Care of their animal spirits, that they may be

plentiful, neat and pure. Such are bred by subtle and pure aire; Thin diet, and of good juice, due evacuation of excrements; avoidance of unseasonable studying, by which crudities are multiplied, and the body made sickly.

Point, 2. Of preserving the Health of middle-aged persons.

Wee call that Middle-Age, which taking its beginning from the third septenary, runs through the four sextenaries following, and is finished in the fifteenth yeare, so as to comprehend Adolescence, Youth, Virility, and ripe Age.

We shal preserve the Health of this Age, if we shal observe some things, touching Meat, Drink, Affections, Motions, Sleep, Bathes and Excretions: and if any error be committed, we must mend that the following day.

I. In Meat respect is to be had, 1. Of Quantity, touching which observe. 1. That it must be so much, as is requisite to restore the strength of the body, & not to burthen the same, which may be gathered, by the sense of hunger six or seven hours after eating; by belching, absence of Heaviness and smel, quiet sleep, absence of watchings, and bad taste in the Mouth, and if the Head be not heavy at Sun rise, and a man be fit for any business. 2. We must chiefly have respect to three things, 1. The nature of the Aliment, in which respect, Meats hardly digested taken in overgreat Quantity, are more hurtful than those easily digested, so taken. Plenty is pernicious when it has a bad quality joined with it, unless it be some waies diminished by the sweetness thereof. Those who have a cold stomach, ought to eat less; because such a stomach desires more than it can digest; the hot stomach may have more, because it digests more; those whose stomach is temperate, may make their appetite the measure of their eating, not eating before they feel themselves hungry. 'Tis better that the Heat of the stomach exceed the meat, than that the meats should exceed the Heat of the Stomach. 2. The kind of Body and course of life, and the Labours of a man; in respect to which those that are idle must eat less, because they digest less; paines-takers must eat more, because their Heat is augmented by exercise. 3. The time of yeare, and Constitution of the Heavens; in respect of which we must eat more in the winter and spring, because then our stomachs and Inwards are naturally hot-

test. And the contrary must take place in Summer. 3. We must by Fasting, spare diet, sleep, quiet and Vomiting correct any error committed, either through bad custome, or allurements of eating. Of times nature being by the taking of some good food, invited to digestion, has set upon some Crudity which before she could not master. II. Of Choyce, where note first that the flesh of beasts, is more familiar to our Nature than any other food. 2. Of Fouls, we commend a duck of a yeare old, in the winter, and therein the Pulp of the breast, the Liver, and the after-parts; of a wild fowl the wing, from September to January. A Goose of a yeare old, in the winter, and therein the breast, Liver, and after parts; Goslings of a month old, in the spring and summer. A Capon, of a yeare old, from October to April, and therein, the wings, the rumpe, and the flesh along the breast bone. A Quail in August, September, and the whole winter. Young pigeons of three or six weeks old, of which the thighe, and belly are the principal parts. An Hen of a yeare old, in January, February and March, and chickens of six or seven weeks age. A Turkey-Hen in the winter, her breast and belly, whose chick is best in the spring, of two or three months old. A Partrich from October to the spring, in all its parts, but chiefly in the wings. Whose chick, of six or eight weeks old, in July, August and September, is meat for a Prince. A Pheasant in Autumne, and winter, in its wings rather than Legs, whose chick of six or eight weeks old, in the Summer, is most sweet meat. A Thrush of a month old, in Autumne and winter. III. Among four footed beasts are approved the Oxe, from September to March, especially if he be five yeares old; his chiefe parts are the Breast, Loines, and Muscles of the Hips. A Rabbis in winter and summer, its back parts, hips and wings. An Hare in cold winter. A Leverit or young hare of two or three months old, at all times. A Kid in the spring, of a month or two old, it is better to eat of its hinder parts, ribs, belly, head and feet, than other parts of the Body. An Hogg of two yeares, in the winter, the flesh on its back-bone, Loines, Ribbs, Eares and Feet. A Pigg at any time. A Calfe from December to May, its Loins, breast, Belly, Head, Liver, Kidneyes. I forbear to speake of Fishes, that I may not outgoe the bounds of a compendium. III. Of Sawces, touching which observe, 1. That strong & healthy persons, must

ute very little sawce. 2. Wee must abstain from such as differ much from our constitution. 3. Wee must use such as come nearest the temper of the meats we eat. 4. In the Summer, and such as are of a choleric Constitution cold sawces must be used, in the winter and in flegmatick Constitutions hotter may be allowed. 5. Wee must so use sawce, as never to eat more than the heat of our stomach can digest. IV. We must have regard to the *time*, that is to say, how often and when we must take food. Touching both which points observe in general. 1. That we must not eat much and often, as the champions of old were wont to doe; because that is good neither for the body nor the minde. 2. It is better to eat often and a little, than much at once: for so neither shal the stomach be oppressed, nor the body Pined. 3. So often at our pleasure, as we feel our selves hungry. Now this varies, according to age, Temperament, kind of Life, custome; yet the most healthy course for such as are exercised with moderate labours is to eat twice a day; hard labours may eat four times a day. Nor must we eat, as soon as ever we feel our selves hungry, nor must we defer too long after Hunger summons us. For the former breeds crudities, the orifice of the stomach being provoked by reason of its exquisite sense of feeling; the latter fills the stomach with bad humors. 5. Choleric persons, lean people, such as use much exercise, must feed often. For the former doe easily faint away through fasting; especially if choler be shed out into their stomach. The latter have their bodies apt to transpire and spend. The over exercised doe dissipate much. 6. To cold and moist persons, to fat and corpulent, such as are busied with little or indifferent labours, less meat is to be given, for the contrary reasons. A Temperate man may eat twice a day. 8. Because all the meat is not digested in the stomach at one and the same time; but one part descends into the guts before another, there needs no such subtle enquiry about the space of time which must goe betweene dinner and supper; Provided there be no manifest signs of Crudity and repletion; the supper may be foure, five, or six houres after dinner. 9. We must to keep to an houre of eating, that we sometime transgress the same, least exact custome may occasion some danger, when we are forced to misse our time. 10. We must alwaies have great regard to custome. For those that are accustomed to eat twice a day, if they

miss their dinner, are troubled with heart-burning, sharpenes of urine, &c. 11. Although tis Scarce determinable, whether a man that is in health, wel tempered, and at his owne dispose, should eat more largely at dinner or at supper; seeing there are strong reasons on both sides, and concoction in the stomach, seems to be better by day than by night, as we finde by experience, that it is better, in the night than in the day; yet is it certain, that some kind of meats are better at dinner than at Supper, as onions and other vaporous meates; and that not only old persons, but those also which deflect from a good state of health, and are troubled with Catarrhs, weakenes and swimming of the Head, ought to sup more sparingly than dine. V. Of *order*, in respect whereof note. 1. Because all meats are changed into chyle, and those that are soonest digested, are drawn by the Liver, spleen, and guts; it matters not with reference to Coction and generation of Chyle, in such as are in Health, what meats are eaten first and what last; yet it is best to take liquid meats before those that are solid, because they are sooner reduced into act, and by their fermentation doe help the Coction of the other meats; also to take laxative meats before such as are binding, if the mouth of the stomach be not loose beneath, lest being retained long in the stomach they bind the belly; such meats as are apt to corrupt must be taken before others, that the orifice of the stomach being loosened, they may the more easily pass away: astringents before Laxatives, if the retentive faculty of the stomach be weak. 2. Corruptible meats are most conveniently eaten alone, an houre or two before any other; lest being of a divers Nature, they defile and corrupt the Chylus.

II. Touching *Drink*, take these Rules.

1. We must drink so much, that our meat do not swim in our stomachs. Moderate drink moistens the body, cherishes the spirits, helps the distribution of meat, &c. Overmuch drownes the heat of the body, breeds cruditie, disturbs the mind. 2. We must drink between whiles at our meals, and we may drink after meat, if our meat pass not easily out of the stomach; but not til digestion is over. If you drinke during your digestion, Coction is troubled, and the meate is drawn crude unto the Liver. 3. We must not drink fasting: because it weakens the nerves. 4. It is most convenient to drink a little and often at meals, than to fetch all off at a draught or two: the former

mer manner quenches thirst, the latter breeds fluctuation in the stomach. But see touching dinners and suppers *Bernhardus Paternus*, and *Stuecius* in his first book of the Feasts of the ancients, Chap. 14.

III. The *Affections* ought to be moderate; and therefore we must be obedient to reason, whose part it is to bridle them.

IV. The motion of the Body ought to vary, according to the Nature of several Bodies, the time, place and manner. And therefore. 1. *Leane* persons must be moderately moved, strong persons strongly, respect being had to custome; touching which *Hippocrates*. Persons used to daily labours, although they are weak and old, do more easily undergoe their daily labours, than persons unaccustomed, though strong and yonge. 2. While a man is hungry, or meat remains undigested upon his stomach, he must not labor, for if he doe, the nourishment will be drawn undigested into divers parts of the body: but he must not continue too long fasting neither, for then, the natural heat will be dissipated, and bad humors will be brought into the stomach. 3. Motion must goe before and follow after eating, but such as is light. The former removes such excrements as stick in the narrow passages; the latter, brings down the meat, into the bottom of the stomach. 4. Those whose head is weak or full, must not walke in the Sun. 5. Motion and Rest must follow one another interchangeably. 6. Men must leave off exercising, when their face begins to be coloured, and sweat begins to break forth. 7. A man must not study pretently after meat, lest the heat be called forth of the stomach, and the brain be filled with vapours.

V. *Sleep*, as to the time, ought so long to continue, til the meat is digested, and the spirit restored. It must not therefore be continued beyond nine hours, nor must it be less than sixe. Nor is sleep in the day time commendable, unless a man have passed the greatest part of the night without sleep, otherwise the Head will be filled with vapours. Also that sleepe is not allowable which is after Sun-rise, which by its beames opens the passages of the body, and calls forth the humors and spirits from the Centre to the Circumference: as for the manner of lying in bed, it ought to be upon one side, beginning on the right, that the stomaches digestion may be assisted by the Liver, the thighs and armes being moderately contracted, the head a little high, the rest of the body as softly reposed as

may be. As for the place, the moon-beames must be avoided: Let the bed be soft, fit to keepe off the injuries of the aire. Whether the Head should be covered or no, I leave as a thing doubtful.

VI. Touching Baths, observe these following rules. 1. They ought to be neither frequent nor long; for they dissipate natural heat, and cause a redundancy of ill humors. 2. We must not goe into the bath, before our meat be digested, lest crudities be drawn into the body. 3. We must not eat nor drink in a bath. 4. We must come out of the bath before we be weary, nor must we eate or drink, before the heat be expired. Concerning washing of the head and feet, I shal only ad, what follows. The former is not good in Head-ach, or Catarrhs; in other cases, it opens the pores, and lets out fumes: the latter drawes humors from the Head.

VII. Excrements, because they are daily accumulated, ought also daily to be voided forth. And therefore, 1. A man should goe to stoole as soone as he rises. 2. If he cannot doe that, his belly must be moved with the broath of an hen, and other lenitives. 3. The Excrements of the third Digestion, must be expelled by exercises.

Point. 3. Of Preserving the healths of old People.

By old people, I Understand such as have attained to fifty yeares age. But their Age is divided into *green old age*, which reaches from the beginning of the eight septinary to some part of the ninth, and old age it selfe precisely so called. The part of Physick which takes care hereof, is termed, the Regulation of old age.

Now we shal provide wel for the health of Aged persons, if we shal observe some things in *General*, other things in *special*.

I. In *General*, we must endeavor, because in old age the body daily dries away, that the said dryness may be prevented, and that a diet hot and moist may be used.

II. In *Particular*. I. Let the *Air* be hot and moist, and let the cold winter air, be conquered and driven away by Art. II. Let their *Nourishment* be of good juice, and easie to digest (some commend honey to waite away flegme) and let them take a less quantity than formerly, lest too much overwhelm their natural heat. Let them eat thrice a day rather than twice; nor let them ever (if possible) of-
fende

send in the Quantity of their meat. Sometimes let them change their Diet. III. Let their drink be, either thin Wine, fragrant, of middle Age, flegm colored or yellow, or mead, or beer. IV. Let them *avoid passions of the mind*, least their weak Natural heat be dissipated, or suffocated, and a consumption be cauted. V. Their accustomed exercises, are not wholly to be omitted; but let them use light exercise before meat. Moderate frictions are commended that heat being excited after sleep, the distribution of their meat, may be more happily accomplished. VI. Let their *Sleep* be long: and let want of sleep be removed, by washing their feet near bed time, and other sleep procuring Remedies. VII. Let their Excrements be conveniently and seasonably voided forth; and because aged persons are commonly costive, because of the dryness of their temper, let them use emollient and absterfive things, as honey, Figs, Raisins, terpenine, &c. See *Sebizius* of the Diet of aged people.

Article, II. Of Preserving the Health of Intemperate Persons.

By intemperately Complexioned Persons, we understand three kinds of men, which differ from the best temper, Viz. Such as are simply Intemperate, which indeed want their most exact health, yet can sufficiently perform the actions of life, nor are inclining to any Diseases. *Declining Persons*, which are turning from a temperate state towards some Disease, which is known by the threefold kind of Symptoms, and if they be not helped, they fall into the said Disease: and *Persons recovering*, who recollect themselves from some Disease. For the first; for Hygiene, particularly so called; for the middle sort Prophylactice; for the last, *Analeptice* takes care.

I. Touching Intemperate Persons, note. 1. In General. If they are not to be reduced into a better condition, they must be preserved with things alike in general and in special, or as they are wont to speak, in quantity and degree: if they may be reduced, they are by little and little to be used to contraries. 2. That an hot and moist temper, because convenient to our Nature, must in no wise be Changed. 3. If Dry Distemper, must be kept off, as much as may be. II. In Particular. 1. *Hot and dry persons*, lest they over inflame a fretting heat, or heape up sharp Excrements, must avoid hot soultry

aire, hot meats, anger, over great Meditations; they must drink plentifully, but the drink must not be strong. They must use frequent Baths of fresh water, long sleep, and shun the use of hot and dry things. 2. *Persons hot and moist*, if moderately such, preserve their Temperament, and follow all things moderately, lest contracting plenty of Excrements, they fall into putrid Diseases. 3. *Cold persons* require, both hot meats, which stir up heat and consume it not, and seasonable Evacuation of Flegmatick Excrements. 4. *Dry Constitutions*, must have moist meats, and baths of fresh Water. 5. Such as are *Cold and Dry* have an unhappy constitution, which must be holpen with long sleep, frictions which strengthen the Natural heat, and disperse it not, and with a bath of fresh Water. 6. In *Cold and moist persons*, coldness must be corrected, and the moisture preserved as much as may be. Temperate exercises do stir up the Natural heat, whereby it is enabled to conquer the moisture.

II. *Persons Declining*, because in regard of a Plethorick and Cacochemical disposition, encline to sickness, must in the first place use rest and abstinence; and in case these suffice not, they require Blood-letting and purging. Therefore, at the beginning of the spring Flegmatick and Melancholly Humors, about the end thereof Cholera, and about Autumn, black Choleric Humors are to be purged. A pill of Aloes Rosata, taken an hour before supper, but not too often lest it hurt the Liver, may suffice to Empty the matter which sticks in the stomach, and first passages.

III. Touching persons, neither sick nor well, but recovering, two things are to be observed. 1. That they fall not back again into their sicknesses. 2. That they may soon recover their perfect health. And therefore. 1. Because such reliques as are left in Diseases after the Crisis, wont to caute relapses: it there be as yet any superfluous matter remaining, it must be drawn away by little and little, and the parts are to be Roborated. 2. If there be no matter over, the Body must be carefully nourished, with moist Diet easie of digestion, and of good nourishment. 3. Bodies that have been long extenuated, must be repaired by little and little; such as have been suddenly decayed must be quickly repaired. 4. These things are chiefly to be used, which respect the Causes of the weakness, and may resist the Morbifick Dispositions. And so much for the Method of preservation of Health.



THE
 SECOND BOOK
 OF THE
 IDEA
 OF
 PRACTICAL PHYSICK.

Treating of the Preternatural Affections, or Disorders of Mans Body and their Respective Signs.

The INTRODUCTION.

SO much may suffice to have
 spoken touching Hygieine or
 the Art of Preserving Health:
 The *Second Part of Physick*
 follows, termed Therapeutice,
 which teaches the way to
 know all Infirmities which impair the
 Health of Mans body, and being known, by
 certain convenient Remedies to remove the
 same, if possible.

Its End therefore is to remove (if possible)
 the preternatural Dispositions of the body,
 and to restore health lost.

Its *Parts* are likewise two: 1. *General*,
 which treats of the Nature, Signs, Causes,
 Differences and Cure of the preternatural
 Affections of the Body, both in General, in
 particular, & in Conjunction. 2. *Special*, which
 treats of such preternatural affections as refer
 to the particular parts of the Body. The former
 is again subdivided into four parts. In the *First*
 we shall treat of the Nature and signs of præter-

natural affections. The *Second* declares the
 Medicaments. The *Third* laies open the gen-
 eral method of curing. The *Fourth* treats
 of the first differences of Diseases, and deli-
 vers their Cure, considered in gross.



Title, I. *Of a Disease
 in general.*

Chap. 1. *Of the Nature of a
 Disease.*

Those Affections or disorders which præ-
 ternaturally infect the Body of Man, are
 three: A Disease, its Cause, and its Sym-
 ptome.

A Disease is the Inability of the living
 parts

parts of Mans body to perform their natural Actions, arising from their præternatural Constitution.

Concerning which we are to consider, 1. The Subject. 2. The Times. 3. The cause. 4. The Differences. 5. The Signs. 6. The Issue or event. Of the first four we shall treat in this Chapter, assigneing peculiar Chapters to the two last.

I. The Subject is the living parts of mans body both spermatick and sanguine: both in reference to their matter, to which Temperament and occult qualities belong; as also to their structure, to which conformation and unity do appertain. Sometimes; altogether, sometimes many, sometimes only one of these is affected.

II. The times are four. 1. The Beginning in which the disease is crude, nor are there any signs of coction or corruption contrary thereto, present; all things are remis, unless the matter being agitated does infect some one part more than the rest, til it is either dissipated, or thrust out into the Circumference of the Body, and healthily disposed diseases, their causes being removed, do sometimes vanish. 2. The Augment or Increase, wherein the Symptomes grow more burthenome, and the signs either of Coction or contrary Corruption, begin to appeare. 3. The State, in which there is the greatest combate betwixt Nature and the Disease; the signs of Life and Death do manifestly shew themselves, and all things are vehement: and if any Remission appeare, the reason is, because nature being weakened gives over, and is no longer able to oppose her against the morbisick Causes. 4. And lastly this Declination or Decrease, in which the disease being overcome by nature, grows gentle, and no man dies at this time, unless through the fault of himself, or the Physician, or the disease changing into a worse. Touching all these times note in general, 1. That each of these, being not of equal length in all diseases, is subdivided after the same manner, so that the beginning hath its beginning, Augment and Declination and so the rest. 2. That Intermitting Diseases have their particular times in each fit, 3. That Diseases which receive nourishment in winter, are finished in Summer, and contrariwise; unless they are terminated within the circuit of certaine daies.

III. When we speak of Causes we do not consider any material cause. For a disease hath no such cause, its subject being instead thereof; nor do we intend the formal cause,

for that is explained in the definition: nor of the final, because those things have final causes which consist in perfection, whereas a disease consists in defect thereof, also it is bred and receives growth by accident; but we speak of the Efficient Causes, which are considered either in respect to the disease, or absolutely, or according as the things themselves are. The former are sundry, 1. Remote, which either works as procatartick causes, which 1. Are either in the Body, or without, and therefore have not recourse with externals, 2. They are called external, because they belong not to the Constitution of the body, 3. When manifest causes, as a sword &c. may be the immediate cause of a disease, they are reckoned with the former, 4. They stir up and put in motion such causes as lie hidden in our Bodies, so that they sensibly affect our bodies, as Watchings. 5. Of their own nature and force, they cannot cause a great disease: or they act after the manner of antecedent causes, which continue hidden dispositions in the body, which a disease may follow upon, which nevertheless are not conjoined therewith, only are defined by power of acting, and are only found in diseases joined with matter: finally, because the internal, as related to the disease, may be both antecedent and conjunct causes, they have not recourse with them. II. Next, which adhere to the diseases themselves in the body of man, so that suppose the causes, you must suppose the diseases, take away the causes, you remove the diseases. Hence they are termed continent and conjunct causes, III. Per se, of or by themselves, by whose power the disease doth exist; and by accident which cause the same by the Interposition of some other thing. IIII. Privative, which act by absence; and Positive, which work by their presence. V. Comon and Proper. VI. Finally, external and internal, of which we shall treat hereafter.

III. The differences of diseases are either Essential and primary, of which and their cure we shall treat in the first book; or Accidental, which are taken from the Number, Magnitude, Duration, Manner, Event, Order, Subject, Causes, Seasons of the yeare, and Place. For I. In respect of Number, a disease is either 1. One, which possesses but one part, or many parts but without any Interruption: which is either simple, which is joyned with no other disease, and hath the simple nature of one only sort; or compounded, which consists of many diseases concurring in the same part, whether they be of the same kind or not; and in case

Cafe it be joined with the Cause, or some grievous symptom, tis termed *Comitatus*; as that *Solitary*, which has neither the cause, nor any grievous symptom joined with it. 2. *Many*, one of which is not in the same part which is possess'd by another, and these either hurt a common action, and are called *Complicati*, or *Impliciti*: or one contributes somewhat to the generation of another, and they are termed *Connexi*. 3. By *Sympathy*, which falls out, when either a part receives some humor or vapor from another place, or when it is forced to receive a matter of which it ought to be free; or when the spirit, a necessary Instrument to the souls actions, is hindred of its influx, or when matter necessary to the action is denied: & this happens, either by reason of the sympathy of the parts, which is either of the kind, or of continuity by the nerves and membranes, of which *Senertus* treats elegantly in the 39. page of his *Paralipomena*; or of one work, or of neighbourhood, or by reason of their strength and weakness: hence comes either a *Diadosis* of the Humor passing from a noble to an ignoble part, or a *Metastasis* from an ignoble to a noble. 4. *Disjoined*, which being fixed in disjoined parts, do neither hurt the same action nor confer any thing to the mutual generation one of another. II. In respect of *Magnitude*, Diseases are, 1. *Smal*, which hurt the Action less than those sort of diseases are commonly wont to do, or stick in the more *Ignoble parts*. 2. *Great*, which either hurt a Constitution and part very necessary to life, or Goe very far from the natural state, or have some bad quality annexed, or they deject some faculty, by hurt of which the life is endangered, or they take up a large place. III. In respect of *Duration*, diseases, are 1. *Long*, which move slowly. 2. *Short*, which moves quick, 3. *Continentes*, which are alwaies moved with one and the same motion, til they are quite ended. 4. *Continua*, which continually afflict, but are heightened and abated at certaine intervals of time. 5. *Intermittentes*, which have periods and *Fits*, and therein their several Modes and figures. 6. *Acute*, which are terminated on the fourteenth day; *peracuti*, on the seventh day; *Perperacuti*, on the fourth day; *Acuti ex decidentia*, which are terminated on the fortyeth day. 7. *Critical*, which are finished by some great mutation, by evacuation or translocation. 8. *Not critical*, which are ended by diminishing peece meale. IIII. In respect of the *Manners* or *Conditions*, they are, 1. *Benigni*, gentle, wel affected, ha-

ving no greivous symptom besides nature. 2. *Maligni*, malignant, which have somewhat of an occult gravity. 3. *Pestilential*, which come by Infection. V. In respect of the event, they are, 1. *Healthy*, which end in health. 2. *Doubtful*, of which many are saved, and many die, 3. *Deadly*, which kil alwaies, or for the most part, either because they destroy that action by which life consists, or proceed from matter which wil not admit Coction, or because their Focus is so far of, that medications cannot reach so far without loosening their strength. VI. In respect of their order, they are, 1. *Ordinate*, which keep their Mode, or Figure. 2. *Erratick*, which neglect the same. 3. *Relapsative*, which when they are thought to be quite finished, returne againe. VII. In respect of their subject, they are, 1. *Universal*, which afflict the whole Body. 2. *Particular*; which molest one or more parts, 3. *Cognati*, which are suitable to the temperament, constitution of Body, Age, Season of yeare &c. 4. *Minus cogniti*, less of kin, which are contrary thereunto, they are of *Men, Women, Infants, Boyes, Young Men, Old men*. VIII. In respect of the Causes, they are 1. *Exquisite* or legitimate, which spring from one simple Cause. 2. *Spurious* or *bastard*, which proceed from mixt humors. 3. *Hereditary*, which spring from fault of the seed or mothers blood. 4. *Conjenit*, which happen from the first original, through fault of right shaping, though the Parents had not the same disease. 5. *Adventitious*, which come by some accident. 6. *Fientes*, which though produced, cannot exist without the matter continue. 7. *Fatti*, which abide, the causes being removed. IX. In respect of the time of the yeare, they are *Spring sickness, Summer sickness, Autumn sickness, and Winter sickness*. X. In respect of place, they are, 1. *Sporadick*, which being of different sorts do assault sundry persons at the same time, and in the same place. 2. *Common, or Pandemial*, which either are never but in one Country only, or which sometimes in one, sometimes in many places, afflicts many together. 3. *Epidemii, Epidemick, or vulgar*, which at some certain time, now in some one Country, other whiles in many, do infest many folks at the same time, and they are for the most part pestilential.

Chap. 2. Of the Diagnostick
Signs of a Disease.

THE Diagnostick Signs of a Disease, do respect, 1. The Disease in it self. 2. Its times. 3. The Parts affected. 4. The Differences of the Disease. 5. And lastly, all these together: And they are either common to many and divers persons; or proper to one Disease; which are either inseparable, or proper and inseparable together, or Pathognomick, and Essential to the Disease, and recurrent therewith; or Assident, and supervenient.

I. A Disease in it self is known, 1. From things Essentially inherent; in External Diseases most easily without help of any other signs; in Internals, by the mediation of other Signs. 2. From the Causes, which are either present, or have preceded. 3. From the Bodies Disposition, which depends upon Hereditarietels, Age, Sex, Kind of Life, Dyet, and Evacuations omitted. 4. From Actions Natural, Vital, Animal, which are hurt, abolished, diminished, depraved; and that suddenly or slowly. 5. From things voided forth, viz. Urine, Dung, Sweat, Spittle, &c. 6. From the Qualities of the Body changed, color, smel, &c. which yet, do signifie rather the Cause, than the Disease.

II. The Times of the Disease, (whose knowledg is necessary, were it but in respect of the state, when, if ever, the signs of perfect Coction appear, and good Crises do happen) are known, 1. By the Idea of the Disease, be it long or short. 2. From the time of Year, Dyet, Countrey, Temperament, Strength, &c. Hot things are the Causes of hot and acute Diseases. Patients strength in a disease not deadly, signifies a short disease, and that the state is at hand; in a deadly disease, it shews it will last long. 3. From the Mutations of the fits, in which their Anticipation, coming later, duration, and vehemence, are to be observed: of which also see Authors. 4. From the Symptomes of Diseases, which are light at the beginning, strong and fiercest in the state. 5. By Coction and Crudity, which is either proper to one kind of diseases, as spittle in the Pleurisie; or common to many.

III. The Parts affected are known, 1. From the Causis, Things taken in, done, Retained, Excluded, and incident from without: Some are more apt to one part than another;

also at some season, the Lungs are chiefly infected, other whiles the Stomach, &c. 2. From things Essentially inherent, or by propriety of the Part, and the diseases inherent in the parts. 3. From the Actions hurt, unless they be hurt by some extenal accident, especially by pain; of which we shal treat hereafter in a peculiar Chapter. 4. From things voided forth, in which substance, quantity, quality, and Mixture, are to be observed. 5. From qualities changed.

IV. The Signs of the first and Essential Differences of Diseases, shal be explained in the fifth Book; in respect of the accidental, w^{ch} we have above propounded, Observe, I. Touching Diseases by Sympathy, 1. That they encrease or decrease, with the Primary Disease, and are deleted by the Primary. 2. That they infect not continually by certain fits, unless matter be continually supplied. 3. By things helping or hurting applied to the other, they are helpt or hurt. II. Touching acute Diseases, that they from the very beginning, and the first three daies, are extreamly burdensom to the sick, and have grievous symptomes, because they proceed from hot, sharp, thin, and movable Humors, which vehemently provoke Nature. III. Concerning malignant diseases, 1. That they arise from Cautes both extenal and internal, which are offensive by their whol substance. 2. That in them, the Patient is frequently quiet, though he cannot tel of any vehement or dangerous symptom; that in the beginning the Patient is oftea held with a deep sleep, is not eased by sweats, or other Evacuations, shivers, grows hot, bleeds at Nose, without any appearing Cause; but in other respects they seem troubled with a slow Fever, with sighs as it were of Recovery, and upon a light occasion faint away. They talk continually, and their Tongue is black and rough. 3. That the same diseases, after a light Remission, the malignity having spread it self through the Humors, are most suddenly, and vehemently exasperated. 4. That in them, the paines which were, do remit and abate, without either Excretion or Rising; the pulse in respect of the feverish Heate, haveing an unwonted parvity with Inequality and Frequency.

V. All those promiscuously regarding signs are afforded by the differences of Urines and Pulles.

I. The differences of Urines, are taken from their Consistence, Quantity, Quality, things mixed with and contained therein. 1. As

As for what concerns the Consistence, Thin urine argues too much drinking, a strong obstruction of the Kidnies and Ureters, and want of natural heat proceeding only from distemper. Defect of that salt, which is wont to be resolved out of the meat. Thick, argues oppression of the heat by abundance of Humors indifferent, shewes vigorous Heat, an exquisite digestion, of the stomach, Liver, and veins. *Clare and transparent*, perfect concoction, goodness of Humors, whence afterwards it makes a sediment. *Troubled*, proceeding from the cold of the aire, and admitting amendment by the fires Heat, in continual Fevers, argues a rudiment of Coction. *Troubled* which is made so, shewes diseases of the Kidneyes or bladder, plenty of crude, thick and clammy humors, out of which many thick flatulencies being produced, they are mixed with the Urine, and hinder the matter from descending, sudden obstruction of the Liver, Spleen, Reines, &c. Solution, if it happen suddenly. *Confused*, which is in all parts alike, and hath no Hypostasis, shewes diseases in the veins, and properly confusion, corruption & putrefaction of the Blood and Humors, which are in the greater veins; and therefore 'tis only observed in fevers, and those continual and malignant. *Fatty* defilement of the alimentary Humor, which flowes into the parts, so that it cannot be converted into their substance, whereupon dissolution followes. II. As for the Quantity, much, signifies immoderate drink, diuretick Medicaments, cold distemper, and cold pressing and squeezing forth, moist diet. Heat of the Kidneyes attracting water shut up in some place, resolving of the Body into liquor, either of its own accord, or by force of Heat, to which fatness is joyned. Little, shewes little or hard drink, overgreat sweates, plentyful stools, obstruction of the Kidneyes, Ureters, Bladders, Neck, and Bladder, vehemency of feverish heat, the drinks turning to the bodies nutriment, which sometimes happens to such as are in away of recovery from some disease. III. In respect of the smell, fragrant Urine intimates the use of Terpentine, Musk, Benzoin &c. For from internal causes such Urines can hardly proceed; *Stinking Urine* argues eating of rotten cheese, garlick, an Ulcer of the Kidnies, Privities, neck of the bladder, putrefaction of humors if it be fresh, of the Substance, if an old stench. IIII. In respect of color, white urine if thin and transparent, argues plenty and thinness of

drink, strong obstruction of the Mesentery, Liver, or kidnies, great imbecillity of digestion, defect of color, and sometimes the ascent thereof, to the belly, Head, or some part in the Habit of the body; if *thick, obscure*, or like milk, it argues abundance of thick flegm. *Red*, and withal *transparent*, argues Heat of the Liver, or a fever; if *thick and yellowish*, it argues the mixture of yellow or vitelline choler, a phlegmon of the Liver, or an exquisite scirrhus. *Safron-color'd*, argues the use of Rhubarb, Safron, or Fenel, obstruction of the Gall-bladder, and then Linnen cloathes dipt therein receive a tincture. *Bloody*, shewes the weakness and slowness of the Liver, an ulcer and contusion of the Kidnies and Loines. *Wine & grape colored*, shewes aduision of blood, and the change thereof into black choler. *Green*, argues verdigreise colored choler. *Lead-colored* argues stripes, melancholly, and extinction of the natural Heat. *Black*, if compounded of *green and black*, argues extreame Heat, and permission of black choler; if of *Blew and lead-color*, extinction of Heat, unless it come away in manner of Crisis. V. In respect of things mixed, the *Crown* which circles about the surface thereof, shewes what kind of blood is in the greater vessels, by its whiteness, redness, and Lead-coloredness. 2. The *Froth* if it come without shaking, argues wind. 3. Bubbles *great and lasting*, argue gross and clammy humors, as also wind. Such as *easily break*, thin and *smal*, in the crown of the urine, argue paine of the whol Head, if they be al over the Crown, of half the head, if they possess only half thereof; sharp paine, if Gold-colored; mild paine, if white; long paine, if they continue long; being like smal seeds seated in the Crown, and moving to and fro, they argue distillations descending from the Head, into the lower parts. 4. *Fat*, like Cobwebs, shewes the melting of the fat of the Kidneyes or whole Body. 5. *Branny* contents, if they settle, argue scabyness of the bladder; if they swim they argue the wasting of the solid substance of the Body, by reason of a burning Heat. 6. *Little scales*, with strong smel, argue either exulceration of the bladder, or melting of the tunicles in the vessels, and of the solid parts, by fervent heat. 7. Contents like *meale* signifie the same. 8. *Caruncles* or little bits of flesh proceed from wounds of the Kidnies. 9. *Strings* come from the seminary vessels in women that have the whites, or some filthy Issue of the womb. 10. *Blood*, from a new ulcer of the Kidnies, or of some Bowel. 11. *Quittor* from

from an old and foule Ulcer, either in the Kidnies, if it be without any sense of paine, and wel mixed with the urine; or from the neck of the Bladder, if it be with paine, and not wel mixed: but however, it alwaies settles to the bottom. 12. *Gravel*, if *yellow* and *red*, comes from the Kidnies; if *white* from the Bladder; if *clammed with quittor*, from a fordid ulcer of the Bladder; if they *swim on the top*, and *stick to the sides*, from the Livers heat, and Aduſtion of the Blood. 13. *Seed* argues an hurt of the Spermatick veſſels, and swims on the top. VI. In respect of the Contents, which in ſound perſons ought to be white, ſmoother, equal, and pyramidal, 1. *Little* comes from weakneſs of the Alterative faculty, diſtemper, multitude or Crasſitude of humors, and diſſipation of the Bodies ſubſtance by external Cauſes. 2. *Much*, from ſuppreſſion of ſome cuſtomary Evacuation, if it be at the ſame time both thick and undigeſted; from ſtrength of the aliments and faculty, if it be indifferent in ſubſtance and color. 3. *Thick*; from plenty of crude matter, or the Crifis of ſome old diſeaſes. 4. *Thin*, from Crudity or digeſtion but newly begun. 5. *Straw-colored, Gold-colored, red*, from redundancy of choler in the veins, and from inflammation of the blood. 6. *Blewish, Lead-colored, black*, from extinction of natural heat, corruption of blood and melancholy.

II. There are many differences of Pulſes that favor of vaine curioſity and idle ſubtilty: diſcreet Phyſicians are content to obſerve only theſe three following. *Equal, and unequal; Swift and Slow*, ſtrong and weak. The *Equal*, pulſe argues ſtrength of Nature. The *unequal*, ſignifies either obſtructions and compreſſions of the veſſels, or abundance of Humors: The *Swift*, uſe increaſed, ſtrength of the Faculty as yet; or at leaſt that it is not much weakned. *Slow*, argues the contrary. The *Strong* ſhewes a ſtrong faculty, and ſometimes great Provocation. The *weak*, either diſſipation of ſpirits, or expreſſion of ſtrength.

Chap. 3. Of the Diſeaſes Event, Or Iſſue.

THE Iſſue of a diſeaſe intimates four things. 1. The Termination hereof. 2. The Time of the Termination. 3. The manner of the Termination, 4. The Knowledge of al theſe.

I. A Diſeaſe is terminated either by Health or Death. Whence the Event is healthful or deadly.

II. In reſpect of Time 'tis ended ſoon or late.

III. The manner of termination is threefold. For a diſeaſe is terminated, either by *ſolution*, when health returns by little, & leave by means of Coction and alteration: or by *Marasmus* or pineing, when it turns by little and little to death; or by *Criſis*, when either the diſeaſe is ſuddenly and perfectly finiſhed; or there is a ſudden change to the better, which is followed with health; or the ſick patient ſuddenly dies, or the diſeaſe is ſuddenly changed to the worſe, which mutation is followed by death. But touching the nature of the Criſis, or the Definition, Cauſes, Differences, Manners and Daies, obſerve. I. That it is nothing elſe but a ſudden mutation, which happens in diſeaſes, with conturbation and evacuation, by excretion or tranſlation, upon certain daies, tending to Recovery, or Death. II. That it ariſes in reſpect of the Conturbation, or that plenty of critical ſymptomes, from the agitation of Humors, and the trouble they bring to the Body, which proceeds from the influence of ſtars; and from an internal cauſe, which provokes both nature and the matter: in reſpect of the evacuation, from the ſtrength of the expulſive faculty, which provoked by the plenty or quality of the matter, expels that which is of ſeizure critically, by help of the fibres and eſpecially of the ſpirits and innate Heat. III. That it has ſundry Differences. For it is *good* when tending to health; *evil* when to death. *Faiſhful*, when no danger of a relapſe. *Faiſtleſs*, when it threatens the ſame. *Safe* when without dangerous ſymptomes. *Dangerous* which ſprings from a principal part. *Perſect* which takes away the whole diſeaſe. *Imperſect* which leaves ſome of it behind. *Wel-foretold* which has tokens preceding and declaring the ſame ſome daies next before. *Unforetold*, which comes unlooked for. IV. That it happens by *Excretion*, by bleeding at Noſe, Vomit, ſweat, ſtool, Urine, Hemorrhoides, Courſes, many places: or by *Tranſlation of the matter*; or by *coction of the matter*, which happens in children who digeſt crude humors while they ſleep. V. That it has *certain daies*, which are. 1. Either ſimply critical as every ſeventh day, viz. 7. 14. 20. 27. 34. 40. For whole daies are not reckoned

reckoned but somewhat shorter. 2. Or *Indicators*, by which the future Crisis is foreshewed, and they are the middle daies of each week, as the 4. 11. 17. 24. 3. Or *Intercalares*, or Leap-daies, in which the Crisis happens accidentally, and against Nature, and they are the 3. 5. 9. 13. 19. 4. Or *Vacui*, called *Medicinales*, in which either there is no Crisis, or an imperfect and bad one; as are the sixt, which is a Tyrant, the eighth and tenth less dangerous than it. Now that such mutations happen on these daies, the Cause is, 1. The progress of the Moon, both to Quadrate and opposite signs, as also to the sextile and Triangular ones. 2. The Motion and disposition of the humors, which is the Cause, that the Crisis happens, sometimes slower, sometimes earlier. 3. The Nature of the Body, which being assisted by the Moons motions, and provoked by the Humors agitated by the Moon, begins to assaile the morbifick matter, expels the same, and so works the Crisis.

III. The knowledge of the event of a disease respects four things. 1. The Event it self in general. 2. The Termination. 3. The time of Termination, or the duration. 4. The Manner. The signs which shew the same are termed *Prognosticks*, and among them the chief are those that declare Crudity or Coction. 1. The knowledge of the event of a disease in general, depends upon a comparison of the strength of Nature with the strength of the disease, to which the foreseeing the state of the disease, confers much. The strength of Nature is judged, both by its natural Causes, as well immediate, viz. the natural Constitution of the parts, in Temper, Conformation, and unity: as mediate, or remote, viz. the six non-natural things so called: as also by its effects, viz. the Actions, evacuations, and qualities changed. The strength of the disease is gathered, from things essentially inherent, causes external and internal, helpers, and effects, or consequences thereof. Here note. 1. Oftentimes from many small ones, the greatest signe drawn. 2. Many times one strong signe is prevails more in signification than many weak ones. 3. Because some signes are better or worse, as they are joined with strength or weakness of nature, therefore the signs must be compared, both one with another, and with the strength of the sick patient. 4. Those are the worthiest signes which declare the strength or weakness of the vital faculty. 5. Oftentimes when some signes of Coction appear, the patient may nevertheless perish, by reason of some malignity which betrayes it self, in a

weak pulse, a parched tongue &c. 6. By how much the symptoms are less and fewer, the disease is so much the weaker; and contrarily. 7. That they are less dangerously sick, whose disease is suitable to their Nature, Age, or custom, or season of the yeare; than they whose disease is like none of these. 8. That there is greater danger, when turgent humors offend, than when such as are quiet, provided they be not fixed in some part: when the disease comes from some large and frequent Error in point of Diet or the other things non-natural so called: when the Humors are mixt, than when they are simple. When a solid matter offends, than when a liquid &c.

II. The Termination of the Disease; and whether it will tend to Health or Death, is gathered from the actions natural, vital, and Animal; From things voided, and qualities changed; not that those things do presently declare Life or Death, but because they promise hope of Recovery, or terrifie by suggesting a fear of Death. And therefore, I. In respect of the natural Actions. 1. It gives good Hope. 1. If the patient do easily take and retain what is given because it signifies the good condition of the natural faculty. 2. If the Patient eat such things as he or she was delighted with in time of health. II. Those following breed an ill event. 1. If the patient desire meat when his strength is wasted, for that is the custom of those that are at death's door, and happens either by reason of a soure juice slipt into the stomach; or by reason of the great wasting of the body, by the disease. 2. If the patient have a most exact sense, because that proceeds from a great Inflammation in the bowels. 3. If he loath meate in acute diseases, and other pernicious signes are present. 4. If in burning Fevers, his tongue being dry, he thirst not; because it signifies either Raving, or great decay in the Appetitive faculty, unless the stomach be moistened with an humor falling from the Head. 5. If in an acute disease, the thirst which was, is suddenly taken away and gone, without any cause, the tongue remaining dry and the urines crude, because 'tis a signe the patients senses languish.

II. In respect of the vital Actions. I. It is a good signe. 1. If the pulse depart not much from its natural symmetry or due proportion, and there be other good signes. 2. If when there is some change to the worse, it happen from some discernable cause. 3. If there be no fainting felt, nor panting of the Heart; or

or in case there be, they proceed from consent. 4. If respiration be according to nature, and other good signs are present; because from hence we gather that neither the chest, nor the Lungs, nor the midriff are affected. 5. If the same be great or swift; for though it should signifie great abundance of fuliginous excrements; yet it argues withal the readiness of the organs, and the faculties strength. II. 'Tis a bad sign. 1. When the pulse is either very languishing, very slow, and very seldom, which is worst of all; or very little and very soft, and very hard; or exceeding frequent, but not very swift, nor very great. 2. When Respiration is great and swift, because it is usual only to such as are distracted: great and frequent, because it signifies Inflammation or Pain of some of the Instruments of Respiration; great very seldom, because 'tis a sign of distraction. 3. *Respiration smal and swift*, because it proceeds from plenty of fuliginous vapours, with pain or inflammation of some of the instruments of Respiration; *smal and slow* because it shews a weak faculty. *Smal and obscure*, so that the Patient is hardly discerned to breath, because it intimats the Virtue decayed; *little, obscure, and frequent*, because it proceeds from pain or inflammation of some part necessary to respiration; *Smal and seldom*, because it signifies extream debility, and therefore the breath of the Patients does then come forth cold. 4. *Sublime Respiration*, in which the Chest is exceedingly dilated, and that which is inspired is little, but withal in regard of the urgent Necessity, most dense and frequent because *Hippocrates* makes such sigh unto death. 5. *Respiration with Rattling*, especially if it be joynd with other pernicious Signs, because such is that of dying persons.

III. In respect of Animal Actions. I. These are good signs. 1. *Not to be distracted*, which though it be no certain sign of recovery, seeing many die in their right wits; yet in diseases, wherein the Brain is affected, either by it self, or by accident, it is no bad sign. 2. For the Patient to lie in his bed as himself has formerly been accustomed, and as sound persons are wont to do, that is to say in such a posture and gesture, viz. if he lie on one side, with his Neck, Arms, & Legs bending somewhat inwards, with his body streight up, not falling down towards the Feet. 3. For a Trembling to follow a Palsie, because 'tis a token of nature overcoming or abating the disease. II. *Bad signs* are. 1. *Raving*, which though never

safe, yet it is then less dangerous, when 'tis accompnied with laughter and good signs, is light and not continual; when continual and vehement, 'tis more dangerous; bold and rash, is worst of all: but withal other signs must be observed, viz. Pulse, Respiration &c. 2. *sleep and watching*, if they exceed measure. 3. *Coma*, if it happen in the beginning or vigour of a disease. 4. *Hearing Hurt*, if it spring from evil evacuations, or decay of strength. 5. *Stupiditie*, because 'tis a sign either of a vitious humor carried to the Brain, or of natural Heat extinguished. 6. *Pains* which are *bad*, if at first, the matter being as yet crude, they afflict the principal parts; if the disease be not diminished by them; if they soon vanish away, or pass from the ignoble to the nobler parts; if in some part they are not felt, for then the Patient is distracted. The same holds good of weariness which has been said of Pains. 7. *Convulsion*, which is *dangerous*, if therein the Contraction be more vehement and lasting, if it occupy many parts, and those neer the brain, if it arise from any flux of blood, or over vehement purgation; if in acute Feavers it follow the Phrenzie, Iliac passion, or watchings: *less dangerous*, if it happen to Children, if by reason of the overgreat motion of the matter to the Head or Nervous parts, if from the stomachs being fretted by a sharp humor, or medicament, or from straining in vomiting, and last not long. 8. *Hiccupping*, which is dangerous if it happen in diseases after much evacuation, if inflammations and Feavers, especially in old Men, and most of all, if other pernicious signs are present. 9. *Trembling*, which is *bad* if it happen without evident Cause in the beginning of diseases, especially long ones, & is joynd with other more grievous symptoms. 10. *Shivering & shaking* if they arise at the beginning of a disease, when the matter is but yet crude. 11. *Sluggish dulness*, which is alwaies bad, and without a Fever foretels an appoplexie; in Feavers it portends extream danger, by reason of the extinction of natural heat. 12. The *Voice*, which if much changed, harsh, unequal, obscure, is dangerous; if quite taken away, 'tis a deadly token, unless some critical evacuation follow.

IV. In respect of things voided and retained. I. These following are good signs. 1. *Urines*, thin with good color; thick, if they were first thin, and are made after the beginning of the disease, reddish, pale saffron-color'd, yellow

yellow-clayish, with a reddish sediment. 2. *Vomitings*, which answer the nature of the disease, because they either take away or lessen the disease. 3. *Sweatings*, if they happen after Coction is made, if they are hot and plentiful, if they flow out of the whol body and diminish the disease. II. These are bad signs. 1. *Urines thin and red*, because they signifie a crude disease: *troubled and not settling*, because in a weak person they signifie death, in a stronger, the length of the disease. *White*, if they continue. *Black*, if in acute diseases. *Oily, green*, the reason of which have been already rendred. *Wanting sediment, Swim, and Cloud*; unless the sick have fasted much, or watched, or is of choleric Complexion. *Thick without sediment* with a mealy, branny, scaly sediment &c. 2. *The stools drie*, because proceeding from a fiery heat, and if withal *black*, they argue a burning disposition about the middle of the body. *Watry*, because they arise from great Crudity, and are in choleric diseases, with bad urines deadly; in milder cases they foreshew a long disease. *Smal and frequent*, because they argue the weaknes of the retentive faculty. *Fatty* because they shew the bodies being melted. *Froathy*, because they argue a defluxion from the Head, & worms in the Guts. *White*, because they argue either a stoppage of the way by which choler descends to the Guts, or the motion thereof, to the upper parts. *Red*, are of themselves deadly, unless they follow natures conquest. *Black*, if from black choler, because they are deadly, unless tempered by the mixture of others; if they come from clotted blood or melancholy, they are not alwaies bad. *Green and Verdigrease-color'd*, whether they proceed from Verdigrease-color'd choler changing to black, or from an Erysipelas in some principal part, or bowel. *Lead-color'd*, because they argue a vehement coldness of the lower parts. Finally, *such as* are stinking, because they argue putrefaction, and foretel putrid feavers. 3. *Vomitings*, if they happen at the beginning of a disease before the matter be digested, & are joyned with other bad signs; whether they be sincere, pale, lead-color'd, black, or stinking, by reason of the Iliac passion, or smal, &c. 4. *Sweats*, if they happen too plentiful, or sparing, or cold; and proceed not from the whol body. See the Aphorismes of Hippocrates.

V. In respect of Qualities changed. I. *These are hopeful signs.* 1. If the whol Ha-

bit of the body be not much unlike that of healthy persons. 2. The *Hypochondria*, when they are without pain, and soft, on both sides equal, and not extenuated. II. These signs following are bad. 1, when the *whol Habit of the Body* is not at all changed by the disease, for that argues that it wil prove long; if extenuated, it is not nourished by meat in the declination of the disease, for that threatens a Relapse; if in acute diseases it swel, because it argues the Livers heat to be weakened, unless the humors be critically thrust into some part. 2. The *Face* when it is such as *Hippocrates* describes, viz. with a sharp Nose, hollow Eyes, straitned Temples, cold Ears, contracted, their fibres inverted, the skin about the forehead stretched and drie, and the color of the whol visage green or black, especially at the beginning of the disease, unless it were such from some evident cause, and amend in a day and night. *Colored high*, because it argues a very hot distemper in the Brain, unless it be a sign of bleeding at the Nose, or a token of a rising that wil appear behind the Ears. *Green, Lead-color'd, Black*, because it signifies extinction of the natural Heat, especially if it soon appear, without any evident Cause. 3. The *Eyes*, when *they shun the light*, because they signifie the brain hurt through dissipation of spirits, and weaknes of the Head. *Swelling and sticking out*, because they argue either resolution of the muscles, or abundance of humors, vapors, spirits flowing thither. *Hollow*, because want of Heat makes them so, which is wont to fill the circuit of the Eye with substance. *Fierce and horrid*, because proper to distracted and frantick persons, and are signs for the most part of Convulsions, or also of death joyned with other signs. *Fixed and stable, or set in the Head*, because they proceed from Convulsion, and with bad signs threaten death. *Distorted*, because they betoken Convulsion. *One less than another*, because it argues the faculty governing the same to be extinguished. Having *Lead-colored* and *Black* veins, because they argue plenty of bad humors ascending to the Brain, and that the native heat is extinguished. *With the White turn'd Red*, because they signifie plenty of fervent blood in the membranes, or their being inflamed. *Shedding involuntary tears*, because they argue undoubted weaknes of the retentive faculty. *Which do not shut close*, because it happens either through Convulsion of the eyes Muscles, or because the faculty is so weak, that it can-

not perfectly manage the Eye lids. 3. The *Teeth*, if they grind, not being accustomed so to do, because they signifie Madnes, or death, if they are clammed with a glutinous Humor. 4. The *Nose*, if distorted, for it argues convulsion. *Sharp*, because it argues great weaknes of nature. *Itching unacustomarily*, unless it foretel bleeding to follow, because it portends the patient wil rue, by reason of store of humors and vapors ascending to the Head. 4. *Eares lead coloured, black, contracted, cold*, because they are tokens of the native heate extinguished. 5. The *Tongue dry, hard, black*, if it appeare so with other signs, and the patient thirst not, because it argues, either distraction, or extinction of the Faculty, and consequently death. 6. The *Hypochondria inflamed or pained, stretched, unequal, extenuated*, because they signifie, either exceeding dryness, or wind, or Inflammation of some part there seated. *Pulsing*, which signifie either the head inflamed, or much wind riseing, from a boiling humor into the head; foreshow perturbation, and with unstable Eyes, Distraction; unless this pulsing preface the Crisis. 7. *Nails lead-coloured and black*, if the Body be withal heavy for tis a deadly signe. But if the Patient be lightsom, and there be some other good signe, the disease tends to an Impostume or Riseing.

III. *The knowledg of the Manner how a disease wil terminate*, respects what ever we have already said, touching the crisis, and involves many questions. For the queries wil be, 1. Whether the disease shal end in a Marasmus or utter consumption. 2. Or by solution? 3. Or by crisis? and if so. 4. Whether the Crisis wil be by excretion? and if so, by what and what manner of excretion? 5. Or by Translocation? 6. Whether the Crisis be very good? indifferent? or bad? 7. When the Crisis shal happen?

I. *Touching the knowledg of a Diseases Termination by Marasmus or solution*, I need not say much. For if the disease out last the critical daies, and those of acute diseases per *decidentiam*, it wil terminate either by solution or Marasmus.

II. By Crisis a disease wil terminate, 1. If it be great and acute, or seem smal, malignity lurking therein. 2. If it arise from matter hot, thin and sharp, which is apt to provoke nature; howbeit in a long disease some critical evacuation may likewise happen, if the disease for some fits preceding have been

more vehement than ordinary. 3. If the strength of Nature be so rigorous as to overcome the disease. 4. If perturbations happen in the body, in reference to the animal, vital and natural actions.

III. A disease wil terminate by excretion. 1. If it be acute, from a thin and sharp matter, and the Crisis be expected at the beginning. 2. If Nature be strong, the pulse high, the waies open, and nature accustomed to sweat or other evacuation. 3. If it be summer. II. If it ought to terminate by bleeding at the Nose. 1. The Hypochondria are distended without paine, which is followed by shortness of breath not long-lasting. 2. There wil soone follow paine of the Head and Neck, redness of the face and eyes, shineing and darknes before the eyes, apparitions are seen, There is raveing, pulsing of the Arteries in the temples, also the pulse in the wrists is vehement. 3. Lastly, when the Nose-bleeding is at hand, the patient begins to rub and scratch his nose: all which signs are more certaine, if the Age and Nature of the patient, and the present constitution of the aire be suitable. III. *If by vomiting*, the humors wil move towards the stomach; whence wil follow, paines therein, with headach, dizziness and darknes of the sight, the upper lip wil be ful of motion, they spit much and thin, there wil be stomach sickness, shakings, coldness of the Hypochondria, hardness of the pulse, & an unequal difficulty in breathing. IV. *If by sweat* which is most usual, there goes before, suppression of urine, shaking, and the absence of the signs of other evacuations, when the sweat breakes forth, the pulse wil be soft & waveing, the skin soft, the external parts wil wax hot, and an hot vapor wil break forth. V. *If by stool*, there wil be no proper signe, but the signs of other excretions wil be absent; there wil be belchings and Inflation of the Belly, paine of the Loins, Heavyness of the knees, sometimes the belly being loose, the urine is suppressed. VI. *If by urine*, the signs of other excretions wil be absent, the patient wil not be very unquiet. About the Bladder there wil be sence of inflation, and heavyness of the Hypochondria. The urines wil begin to be increased. The Belly wil be bound, with a kind of heat. VII. *If by Hemorrhoides*, then the Patient hath been accustomed to them, the signs of other Excretions wil be absent; there wil be heat or paine about the Back-bone, with tension of the Loines; Crises are seldom made by them. VIII. *If by the Courses*, the signs of other excretions wil be absent

absent, the time of their flux, will be neare. There will be heat of the Loines, with paine and stretching of the Hypochondrias, and other signs foregoing the flux of Courles. IX. If by many places, We shal observe the signs of many excretions. X. The excretion will be good, 1. If the peccant humor be voided, and that digsted. 2. If in just quantity and on a critical day. 3. If in a right manner, altogether, and by fitting places.

IV. A disease will be terminated by Translocation or a Rising. 1. If it be acute, and the matter thick. 2. If the virtue be weak, and the urines have been long time thin and crude. 3. If Nature have a propensity to those places, the season of the yeare be cold, the patient ancient, and the signs of a Crisis by excretion be wanting. II. The Riteing happens in the superior parts, if the matter be thin, in the inferior, if it be not so thin, and nature strong. III. It will be good 1. If the matter be digsted. 2. If it have a laudable substance and rite high-pointed. 3. If it ripen equally. 4. If it quickly suppurate, and be in an outward and ignoble part.

V. The Crisis is then best, when the critical signs forementioned have preceded. If signs of coction and crudity went before. If it were foreshowen in an Indicatory day. If it happens upon a judicatory day. If such matter has been voided as is suitable to the nature of the disease. If the patient after the Crisis, be freed from the disease and its symptoms. It is indifferent, if exquisite signs of coction have not preceded; if it happen in the augment or a little before the state, or at least when coction begins to be celebrated; in which case, bleeding at Nose, is the most convenient of all excretions, if it be not foreshowen on the Indicatory day, if it happen in the leape-day, if the evacuation suit not with the nature of the disease, if the patient beare it not wel. It is bad, if it happen before the state, nature being provoked, by malignity or plenty of matter, if it were foreshowen to be such, in the Indicatory day; howbeit, many times it comes suddenly, if other things are present contrary to the best kind of Crisis. Where observe. 1. Oft times in a bad Crisis, the patient seems to be better, yet presently after he falls into a bad condition, because the signs of amendment, were not wel grounded. 2. Sometimes in deadly sicknesses, the patient being strong, for one bad and simply deadly Crisis, many evil imperfect ones happen, in which unstable rudiments of Coction appeare, before the patient come to die. 3. The Prog-

nostications of the Crisis, in reference to death are unstable.

VI. The times of the future Crisis are knownen, 1. By the signs of Coction and crudity, which must necessarily appeare, upon some Indicatory or decretory day. The crisis wil happen upon the fourth day, If a signe therof appeare on the first day; or on the seventh day, if the signe be on the fourth. 2. By such signs as the idea, magnitude and manners of the disease afford: or which we spake before. 3. By the signs of the times of diseases, for a perfect Crisis happens not before the state, but the imperfect Crisis does: the deadly crisis happens also in the beginning, or augment. 4. By the critical signs, which you had before.

Title, II. Of The Causes of Diseases.

Chap. 1. Of the internal Causes in general.

ANOTHER preternatural disorder which afflicts the Body of man, is the cause of a disease; and that is external or Internal. But seeing the latter is an effect of the former, or rather does therewith much conduce to produce the disease, I shal therefore only define the internal.

The internal Cause of a disease is that, which being bred and inherent in the Body of Man, does preternaturally affect the same.

Touching which we are to consider its signs, Causes, and Differences.

I. The signs of causes are taken in general. 1. From their proper tokens, viz. taste, colour, and motion. 2. From a concourse of common signs, which are taken from the Antecedents and Consequents, or evident causes, and from the dispositions of the Body and Symptoms.

II. The Causes of the internal Cause are the things nonnatural, Aire, Meate, Drink, Motion and Rest, Sleepe and watching, Things voided and retained, and Passions of the mind, as far forth as they have power to disorder the Body. And to that end, time is requisite, as also proportion between the agent and patient, Fitness of the Body and Contact.

III. As for their differences, the internal Causes are reduced to the Humors, Winds, and things totally besides nature.

Chap. 2. Of the Internal Causes
of Diseases in special.

Article, I. Touching Humors.

Point, 1. Concerning Humors offending
in Quantity, or a Plethora so called.

The first kind of internal Causes are the Humors: and they are wont to offend in Quantity, Quality, Motion, Place, and in their whole substance: Humors offending in Quantity are termed Plethora, which is nothing else but a superabundance of Humors fit to nourish the Body, which arise from their Causes. Humors nourishing the body of man are contained in the mass of blood, viz. Blood, Cholor, Flegm, and Melancholly. These being turned into the substance called cambium, do nourish such parts as are of kin to themselves and communicate to them as much health as themselves are Masters of. The signs of Plethora are, weariness; because the blood not being ventilated settles into the lower parts. Thick breathing after very small Labor, the Muscles of the Chest being laden with blood. Swelling of the veins, Distension of the Muscles, carnosity of the Bodies habit, Deep sleeps, ruddyness of the face, &c.

The Causes are, good nourishment which affords good juice. The Liver hot and moist which makes it. Idleness, evacuations stop, cutting off of some member. Use of unwonted bathings after meate.

The Differences are, I. One is Exquisite, when either all the Humors are encreased, keeping their due proportion and equality, viz. so that the blood be in a double proportion to flegm, and flegm double to cholor; or only blood alone; or two or three of the rest exceed, blood also not keeping its proportion. 'Tis known by the signs forementioned. It arises also from the causes aforesaid. Another is bastard when plenty of bad juices, is joined with abundance of the natural humors. 'Tis known by the signs of a Plethora, joined with those of a cacochymia, and it arises from the causes of both. II. One is termed *ad vasa*, or in respect of the vessels; which does not oppress the strength, because it increases equally with the flesh & blood; but it distends the coats of the vessels by its plenty, to which the things aforesaid agree. Another *ad visus*, when the Humors so encrease, that they cannot be governed nor digested by the feeble strength of the Patient. 'Tis known hereby, that the blood is not very good, there is heaviness and

Inequality of the pulse, with signs of crudity, and putrefaction beginning.

Point, 2. Of Humors offending in Quality, or Cacochymia so called.

Cacochymia is the presence of ill humors in the Body of Man, springing from their Causes.

Its Subject is the Body of Man, 1. Both in respect of the Veins, Arteries and Nerves; as also of things without, 2. Also in respect of the Region of the Belly, which includes the stomach, metastack veins, hollow-part of the liver, the spleen, and sweetbread. 3. And of the Venous region which contains the convex part of the Liver, with the vena cava, the greater Artery, and all their branches between the Armpits and the Groines. Also the Habit of the body, which includes the muscles, membranes Bones, in a word, the whole bulk of the body.

The signs are to be fetcht from the differences, which follow. Hereunto pertains, the motion of certain daies, which is neither criticke, nor symptomaticke, but natural, which is measured by certain daies and hours, and is so punctual, that it may contend with the Clocks.

The Causes, the six non natural things, of which we spake before.

'Tis variously divided.

I. One sort is from Cholor, which is a preternatural humor hot and drie: preternatural I say, because it is distinguished, both from the more hot part of the Mass of Blood, which is bred of the hotter and thinner part of chyle; as also from natural excrementitious cholor, which is collected in the Gal-bladder, and colours the dung. 'Tis known by the amplitude of the veins, by reason of Heat enwidening the same; by depravation of the concoction, through superfluity of heate, desire of drink more then of meate, vehement pulse, sleep little or none, leane habit, yellow colour of the Body, by its motion from third day to third day, and that about noon. It arises from an hot and dry constitution of body, youths age, watchings, anger, overgreat exercise of the Body; meates hot and dry, fat and sweet. 'Tis divided. 1. Into Vitelline resembling the yolke of an Egg, which springs from yellow cholor adust, and is thick by reason that the wheyish part is consumed by heat; is sometimes voided by healthy persons, turns to black cholor, if it be burned, 2. Into that which is termed *porracea*, or *Leeke coloured*, which is bred for the most part in the stomach, of herbs apt to corrupt, through crudity, and osificines in the veins, of vitelline choler. 3. Into *Æruginous* or verdigreise color'd choler

cholera, which by a most intense Heat is bred, in the Liver, Veins and Stomach. *Isatidea*, or woad-colored cholera, which resembles woad, being bred of the former, more adust.

II. *Another from Flegm*, which is a preternatural Humor cold and moist. I call it preternatural, to distinguish it, both from the colder part of the mass of blood; as also from that flegm wherewith the stomach, Guts, Lungs, Limbs and Brain are plastered. 'Tis known by the softness & whiteness of the body, and by crudeness of the stools. By Urine, Crude, White, sometimes thin, and sometimes thick, by appetite of more than can be digested, by its daily motion, and that towards the Evening. It arises from meats Crude and cold, unseasonable drinking, and cold distemper of the bowels. From retaining of Excrements, by idleness, long sleep, &c. 'Tis divided. 1. Into *Inspid* or *Tasteless*, which follows crudity in the stomach, through want of digestion, and makes the body of a leaden color. 2. *Acid*, which is of the same nature with the former. 3. *Salt*, which arises from salt and wheyish moisture, consists of parts both hot and cold; causes thirst, salt taste in the mouth, and gnawings. 4. *Vitreæ*, like glass, in substance and color, it is extreme cold and very clammy, and raises most cruel gripeings, when it is detained in the Body.

III. *Another is from Melancholy*, which is a preternatural Humor cold and dry. I say, preternatural, to difference it, both from the colder and dryer part of the blood, which is produced in the Spleen out of the colder and dryer part of Chyle, drawn by the *Ramus Splenicus* of *Vena porta*, before it enters into the Liver, to nourish the Spleen and grosser parts: as also from the natural extremencious sort, which because it can by no means be turned into Aliment, it is cast out of the Spleen, partly by the Hemorrhoid veins, partly by the splenic Arteries; sometimes comes as far as the stomach &c. 'Tis known by the Leaden color, and blacknes of the Urine, Suppression of the Hemorrhoids, flatulency and belching, overgreat appetite, sadness, slowness, troublesome dreams, leanness of the Body, hardness and leaden color thereof, and its motion from four to four about midnight. It arises from meats of thick juice, Beef, Coleworts, Fish, upon which a drying, not burning heat does work. From Air cold and dry, consuming the thinner parts, especially if an hot

and dry Summer went before, by suppression of the Hemorrhoids, or other melancholick evacuations, &c. 'Tis divided into *dilate*, or *thin*, which is known by abundance of Urine, and sweating nights. *Thick*, which is known by the obstructions of melancholick people, & *Black cholera*, which arises from heat burning the blood, cholera, or melancholy juice. And it is sometimes sharp; sometimes tasteless, sometimes so austere and harsh, as to dissolve the flesh and being poured upon the ground, to make the Earth ferment and work.

IV. *Another from a serous Humor*, which is nothing but a thin and salt watry Humor, affecting the body by its plenty and quality. 'Tis known, by plenty of Urine, and sweat, sometimes by a wandering pain, because in regard of its thinness 'tis easily carried up and down, and it easily grows hot, by an extraneous Heat. By the sudden going away and coming again of diseases, sometimes by swelling of the Belly, &c. It arises from meats moist and watry, also from good meats, and in persons recovering from sickness, by reason of the wasting and languishing of the stomachs Heat. By detention of serosities, by reason of the expulsive faculties weakness, through obstruction of the other bowels, or constriction of the pores through external cold, fault of the spleen, &c. To this Humor only of all others there is sometimes joyned a *Colliquation* or melting of the bodies substance, which happens either in Famin, through wasting of the natural Heat, and turning the radical moisture and flesh into a vaporous humidity: or in case of bad diet, when the aliment not being suitable nor familiar to the body, is not assimilated into the substance thereof, whence the former Colliquation follows. 'Tis divided into that which is *mild*, which is nothing but the thinner part of the blood: and *sharp*, which has attain'd its saltness from adustion.

Point. 3. Of Humors offending, in their Motion, Place, and whole Substance.

I. *Humors offending in Motion*, are the very same, forasmuch as they flow into the parts, either by means of *Attraction* or *Transmission*. Those parts are either the weaker, and ordained for no remarkable action, either by Nature, as the loose, soft and thin woven; or through some sickly constitution; or the more liable, which have some connexion with the part tending, and waxes

wide and large by which they receive the Humors, or lie under the sending part. The Cause of the Motion is. 1. *Attraction*, through heat caused from without, or through pain. For the pained part, grows hot by plenty of spirits sent to it, Nature endeavouring to drive away the Cause of the pain, fills the pain'd part with blood and spirits; finally pain weakens the part, and makes it most fit to receive the Humors. 2. *Transmission*, either from the whol body, or the venous tribe, or from some parts, namely when their expulsive faculty is strong, the waies open, and the matter plentiful. Yet it sometimes notwithstanding happens, that the Humors being accumulated in their vessels, begin of their own accord to be moved, and rush violently into some one part, according to the nature of its situation and conveniency of Vessels. Now those Humors are most of al moved, which are most thin and sharp, as the choleric.

II. *Humors offending in place, are the Humors aforesaid, when they are where they ought not to be.* The Causes are. 1. *Influx*, either by attraction or Transmission. 2. *Congestion*, which happens either by fault of the part, inasmuch as its coctive or expulsive faculties do not their duties: or through fault of the Nutriment, when it is vitious; and such, as to cause such great quantity of Excrements: or when gross matter is produced, which resists the expulsive faculty.

III. *Humors offending by their whol substance, are those, which having gained within the body a peculiar corruption, they do after an hidden manner, and by their whol substance affect the same.* Understand both preternatural excrementitious Humors, and natural excrementitious Humors retained, as seed, clocers of blood, menstruous blood. The Signs are, the sudden invasion of malignant symptoms, as Raving, Fainting away, &c. The Idea of Diseases themselves, &c. The Cause is, both *alimentary matter*, which has in it the seeds of that corruption, and while tis mixed with others, hurts not, but being separated from them, and existing by it self, it becomes poyson. We verily feed upon many things, that are fed with poyson. To which ad Heat, joyned with the principal Agent, & the Matter, to which may be joined a disposition of the Body hereditary or acquired. Particular Influx of the Heavens, the Air receiving the Astral Influxes, and terrestrial Exhalations. Contagion, Poyson. Finally, the Imagination and Affections of Passions. Now the foresaid

determinate Corruption, is brought to this degree, oftentimes by long Digestion and Fermentation: whence it is that the Plague does not range up & down every yeer, although every year the Humors are many waies faulty, yea, and it often plaies its pranks without any putrefaction, as in plants and Animals, venoms are bred without Putrefaction; and in the most dry Air, pestilential venom is bred, in which there appear no signs of putrefaction.

Article. II. Of Winds.

Flatus or Wind, is a plentiful vaporous Spirit, raised in mans Body by a weak Heat, out of meat and drink and a clammy humor.

The Subject is the body of Live-wights, but chiefly the stomach and Guts.

The Signs are, stretching with heaviness, wandring pains, the foregoing of the Causes that breed wind. The disease caused thereby, rises on a suddain. The Urines are full of bubbles on the top.

The Causes are. 1. Meat, much and moist, which can of it self hardly be digested; and sometimes it is in its own nature windie, as are fruits which wil not keep, windy roots, great Sea fishes, al such things, & such as are sweet, clammy, &c. 2. A crude Humor, and which is clammy. 3. Weak heat, not able to digest the matter, whether it be weak of it self, or in comparison of the matter on which it works.

'Tis divided into *slegmatick wind*, which is slowly moved and lasts long. *Choleric*, which is biting, sharp, and quickly vanishes. *Melancholick*, which is fixed, and causes sadness. And *Sanguine*, which is mild, and is offensive more by its Quantity than Quality.

Article. III. Of things totally against Nature.

Things totally against Nature are *Stones* and *Wormes*.

I. *The Calculus or Stone is a solid & strong substance bred in the Body of Man out of a slimy tartareous mucilage, impregnated with a putrifying faculty, by the Assistance of Heat.*

Its Subject is the Body of Man, and therein the Brain, Liver, Gall-bladder, Stomach, Kidneys, Pils-bladder, &c.

The Signs are supplied from the parts themselves. There is in a manner nothing to be said of them in general.

The

The Cause is not flegm. For many are troubled with flegm that are not molested with the stone; and many have the stone, who keep an accurate diet; but a putrefying or stone-making juice. Hence it is, that persons subject to the stone, make water like inivel, which afterwards turns to a stone. Now it proceeds from the dreggyness of meats, which being retained, it glews to this or that part, is daily increased by arrival of new matter, when it laies hold of a clammy, thick, and earthy matter, it coagulates the same, and the internal salt of Mans body coming afterward, which the foresaid tartar by reason of its natural clamminess easily receives, and hides within it self, at last is congealed into a perfect stone.

II. *Wormes are little live creeping things, bred in the Body of man, of a thick, clammy excrementitious humor, containing in it self a kind of vital Principle; by a quickning heat, raised by putrefaction.*

Their Subject is the body of man, and therein the Brain, Liver, Stomack, &c. The Cause is. 1. An Humor furnished with a kind of vital principle, so that of several Humors several sorts of wormes are bred; and the humor is sometimes thick and roaping, sometimes bitter, so that wormes will be bred of wormwood and sea salt. 2. Heat, not celestial but bred in the body; and that moist but not alone. This by little and little resolves the humor, and stirs up the spirital heat, and principal of life which lay hid in the matter.

Title III. Of Symptomes.

A Symptome is an Affection besides Nature, in those things which belong not to that

Constitution which is necessary to the action of the Parts, and which follows some other thing besides nature.

The SIGNES of the Symptomes are discovered by one or more of the senses; and in case they are hid, they are drawn from the same fountains, with the signs of Diseases and causes, that is to say, from the Effects and Causes.

The CAUSES from which they arise, are Diseases, Causes and their Symptomes.

It is divided three manner of waies especialy.

I. One is of the *Disease*, which immediatly follows the disease, no affection according to Nature, intervening. Another of the *Cause* when the Action is hurt, by some morbifick Cause. A third of a *Symptome*, when one Symptome depends upon another Symptome foregoing.

II. One is an *Action Hurt*, whether it be abolished, diminished, depraved or augmented. It happens either by fault of faculty, when the instrument is immediatly affected; to which the absence of the spirits and influent heat, is referred; or by reason of some external Error, when those things faile, with which the actions are, or without which they cannot be performed. Another is of *things voided and retained*: Another of *qualities changed*, which depend upon the Actions hurt and the *Humors* proceeding therefrom.

III. Another is of the *Natural Faculty*, viz. The nutritive, augmentative & generative. Another of the *vital faculty*. Another of the *Animal faculty*, to which appertaine the Symptoms of the external senses, of the internal senses, the motive faculty &c.

THE



THE
THIRD BOOK
OF THE
IDEA
OF
PRACTICAL PHYSICK.

Touching Medicaments.



Title, I. *Of Medicaments in General.*

Having already spoke of the preternatural disorders which afflict the Body of Man, it follows that we should now speak somewhat of their Removal. Now touching their removal, two things are considerable, 1. By what Meanes they may be removed. 2. How and in what manner they ought to be removed. The Meanes are termed Medicaments, which are considered either in general or in special, and according to their differences. A Medicament in General, is whatever being applied to a Sick Body, is of Ability, by its faculties, to reduce the same from a Preternatural, to its natural state and condition.

Concerning which, five things are considerable. The Name, Faculties, Dose, Adulteration, Substitution and Collection.

I. If we consider the Name, you must know that we understand not the word Medicament in the most common acceptation, for so it comprehends poisons and paintings or Fucus; but in reference to mans body, and that either generally considered, forasmuch as it neither nourishes nor destroys the same; or specially, forasmuch, as it is troubled with sickness.

II. The faculties of Medicaments are, 1. Manifest and either the first, Heating, Cooling, Drying, Moistening, which are sometimes compounded; or the second, which arise from the first, and vary in divers respects, so that they are certaine Modes thereof, as, Attenuating, Absterlive, Deobstructive, Rarefactive, Discussive, thickning, astringent, repelling, stupifying &c. 2. Hidden, in respect of which, Medicaments do either by a peculiar faculty evacuate some particular humor; or they have some peculiar affinity with some member; or they resist poiton. Observe, I. Touching their faculties in General. 1. That they spring from their forms, and the formes act by them as by Instruments, and therefore the faculties as they are referred to the Actions, are

are termed certain effective causes, by mediation of which the formes act upon a determinate Body. 2. That they are either actually in the subject, so as presently to operate, as burning is in fire. Or potentially, when the medicant needs the Heate of the body to bring it into act, which is done sooner or later, either in respect of the matter resisting, and the Heat acting, or in respect of impediments of the matter, whereby its actions are bound up.

3. Or they operate by accident, some other thing interveeing, as cold water stirs up Heat in the Convulsion: or of your selves, and immediately. II. *Concerning the first faculties.*

1. That sometimes they are equally in one and the same subject, so that either they are all equal, or two equal, and one unequal. 2. That the Inequalities which are, do more or less depart from Temper. Those of the first degree, do alter a temperate body so, as the alteration is hardly discerned. Those of the second degree make evident alteration, but without hurt. Those of the third degree, alter vehemently and not without some hurt. Those of the fourth, with evident Hurt. 3. That moisture, which of all qualities is least active, cannot be of the fourth degree. 4. Things vehemently hot, do never moisten. 5. Nothing dries in the fourth degree, but it likewise burns; in the third degree many do, which are cold and astringent. III. *Touching occult Qualities,* that they depend upon hidden properties springing from the former. Now the soule as being Architectrix of her own Houle, produces this inferior Forme, to be as it were her subject matter in a well disposed body, which though it informe its whol matter, yet it chiefly resides in the radical moisture, implanted spirit, and inbred Heat, which is even in dead bodies, and it may therewith be sepatated from the rest of the gross body, and may rightly be termed a fitt Essence. IV. *Touching their knowledg.* The first are known by reason and experience, the former of which is taken from the swiftness or slowness of the action, respect being had to the patient, from smells, taits, colours, tangible qualities, age, place of production, operations and known vertues. The second qualities, the first being

known, cannot remain hid, as being their Handmaids. *Hidden qualities* are chiefly conjectured from similitudes or signatures, of which see Porta in his Phyllognomonicks, and Crolius touching signatures.

III. The Dose is requisite in a medicament, for none works aright, unless given in just quantity. This is determinated with regard to the quality, part affected, and the sick Patient. Fit measured by us, with a graine, a scruple, a dram, an ounce, a pound, a spooneful, &c. By the ancients with a mystrum, a cyathus, an Acetable, a quartarie, an hemina, or cotyla, a sextorie, a congius, an urpa, amphora and culeus.

IV. *Adulteration,* has chiefly place in outlandish drugs, as *Champhire* brought from Borneum, is adulterated with fragments of stones or a certaine gum called *chamberros*, like crude ambar, or the dust of a certaine wood. So *Bezar-stone* is many waies counterfeited. *Mosch* is mixed with a certatine stuff made of Goats blood, bread toasted and powdered, and the gum *Ladanum*. *Amber-Grese* is made up of the powder of *Lignum Aloes*. *Cinnamon* is counterfeited, by barks of *Tamariske* steeped in *Cinnamon* water and then dried. *Benjoin* or *Benjamin*, by a mixture of *Rosin*, *olibanum*, and a little *storax*. *Orebalsamum* with *Oile of Liquid ambar*. *Opium* with *Meconium*.

V. The occasion of substitution, or using *Quid pro quo*, is the want of some simples. So *Calamus aromaticus* is used in stead of *acorus*; *Southernwood* in place of *wormwood*; *origanum* for *Southernwood*; *Hypocists* for *Acacia*; an apple for *Acanthus*; *Anise* for *Ammi*; *Acorus* for *Amomum*; peach kernels for bitter almonds; *sublimate* for *Arlenik*; *Schenant* for *Calmus Aromaticus*; *Cyperus* for *Cardamomes*; *Vulgar Canella* for *Cinnamon*; *Figs* of *Martellus* for *Dates*; *Sage* for *Distamus*; *Elaterium* for *white Hellebore*; *Lapis Lazulie* for *black Hellebore*; *Erysimum* for *Rocket*; *Poppine* for *Mandrake*; *Schenant* for *lyrian Nard*; *Cloves* for *Nutmegs*; *Lovage roote* for *xylobalsamum* &c. of which see Authors, especially *Renodeus* in the fourth Book of his *Pharmacopeia*, Chap. 26

Title

... of which is the want of some simples. So Calamus aromaticus is used in stead of acorus; Southernwood in place of wormwood; origanum for Southernwood; Hypocists for Acacia; an apple for Acanthus; Anise for Ammi; Acorus for Amomum; peach kernels for bitter almonds; sublimate for Arlenik; Schenant for Calmus Aromaticus; Cyperus for Cardamomes; Vulgar Canella for Cinnamon; Figs of Martellus for Dates; Sage for Distamus; Elaterium for white Hellebore; Lapis Lazulie for black Hellebore; Erysimum for Rocket; Poppine for Mandrake; Schenant for lyrian Nard; Cloves for Nutmegs; Lovage roote for xylobalsamum &c. of which see Authors, especially Renodeus in the fourth Book of his Pharmacopeia, Chap. 26

tes or *Bloodstone*, greenish, party color'd, sprinkled over with bloody spots. 7. The *Nephritick stone*, dark, party color'd, mingled of green and other colors, its surface seems alwaies fat. 8. The *Chrysolite*, which is either Oriental, or European. The former is soft, and has a golden color, with more or less blackness. 9. *Chrystallus*, which is then best when most transparent. 10. The *Hyacinth*, which is the better for being but one only color, The worst is the Arabian. 11. Among the less precious sort are. 1. *Lapis lazuli*, which is of a dark azure color, adorned with golden streaks, or specks. 2. *Lapis Armenius*, which is variegated with many green and blew spots, and some blackish ones, the Sky color'd is preferred before the deeper blew. 3. *Lapis judaicus*, roundish, with equi-distant streaks at along, as if so turned by Art. 4. *Lapis Lyncis*, call'd also *Belenitica*, is of a pyramidal shape, and is found of divers colors. 5. *Magnes*, or *Heracleus*, so much the better by how much more Sky color'd and hoary. 6. *Osteocolla*, which is of the shape of a bone, and is also termed *Holosteus*. 7. *Silex*, a flint, a well known stone. 8. *Talcum*, a stone like the *Lapis specularis*, but more thin, scaly, greenish, resisting the fire, and fixed; which also some relate of the *Osteocolla*. 9. *Unicornis fossile*, or a stone which in color and smoothness and frequently in the very shape, resembles an horn. III. Among those taken out of Living Creatures. 1. *Coral*, especially the red. That is counted the best which is of a flourishing color, smelling like Sea weeds, branchy, brittle; not the tough scabby and hollow. 2. *Lapis spongius*, which grows in sponges, being porous, triable, and of a white or gray color. 3. *Alectornis*, or *Cock-stone*, that's most esteemed, which has appearing therein as it were a crum of meat congealed, pretty bright in appearance. 4. *Cbelidonius*, the swallow stone, which is Hemispherical, and alwaies hollow within. 5. The *Carpie stone*, which is triangular, and is found about the beginning of the dorsal Marrow. 6. *Crabs eyes*, a thing well known. 7. *Umbilicus marinus*, which is found in the Orifice of a snail, when it shuts it self up in the winter. 8. *Lapis Caymanum*, which is taken out of the Bellies of Crocodiles or mighty lizards in America. 9. *Lapis porcinus*, Hogstone, which is found in the Gall of Hogs near *Mallacca*. 10. *Perch stone*, found in the fish so called; now there are two found in the said fish, white, oblong, plane, touch'd on the one side. 11. *Bezoar*

stone, of which kind the Oriental are praised, the Persian, such as are blackish green, whose under crust shines, when the uppermost is taken away. The true bezoar is known, in that being rubbed with chalk it becomes of a yellowish green; or being steeped in water three hours, it becomes no heavier than it was before. 12. *Ætites*, Eagle stone, which is said to be carried by the Eagle into her Nest; of which see *Laurentbergius*.

IV. *Metals*, which are either natural. 1. *Gold*, which the chymists call *Sol*, the Sun. The best is that of *Arabia*, the next that of *Hungaria*, the next to that the *Rhenish*. 2. *Silver*, which the Chymists term *Luna* and *Cerebrum*, the Moon and Brain. 3. *Tin*, which the Chymists call *Jupiter*: The purest is found in *England*. 4. *Brass*, or *Copper*, which the Chymists term *Venus*, the best is in *Cyprus*. 5. *Iron*, which the Chymists call *Mars*: the best is that of *Damascus*, and the *Spanish*. 6. *Lead*, or *Saturne*. 7. *Quicksilver*, or *Mercury*, the Idol of Chymists, which comes out in drops from the Clods of many Mines. To these add *Stibium* or *Antimonium*, the Cure and torment of the Hermeticks, which was of old, sold as it was dug up, but now it is tryed first. II. Or *Artificial*, as are. 1. *Scoria*, or the dross which comes when the Oar is tryed in the furnace. 2. *Cadmia fornacum*, viz. That which cleaves to the roof of the Furnaces when the oar of metals is tryed. The best is, that which is afforded by the furnaces of *Cyprus*. 3. *Pomphodix Nibili*, or *Tucia*; which is a volatill spark which flows from melted Brass. The best is the white and smooth, that of *Cyprus* is most commended. 4. *Spodium*, understand that of the Greeks, and not of the Arabians; and it is nothing but a clot of sparkles or ashes which fly in the melting of brass, and quickly fall to the ground. 5. *Flor aris*, to which add verdigrease and the scales of brass. 6. *Cerus*, which is drawn out of lead, with the help of vinegar. The most esteemed is that of *Rhodes* and of *Puteolum*. 7. *Cinnabaris*, which comes from the Shops of the Quicksilver Men. 8. *Literidge*, or the thinner dross of silver purged from the plumbaginous matter, which is blown out by blast of the Bellows.

Article, II. Of Vegetable Medicaments.

Vegetable Medicaments are, trees, shrubs, and herbs; inasmuch as they serve to remove the disorders of the Body, either in whole or in part, viz. By their roots, woods, barks, leaves,

leaves, tops, flowers, fruits, and humors.

I. Those Trees are: 1. *Aple-bearers*, as the Apple tree, the Quince tree, the Citron tree, the Orange tree, the Peach tree, the pear tree, the Fig tree, the Sycomore tree, the Mulberry tree, the Crab tree, the Medlar tree, the Service tree, the Apricock tree, the Malacotone tree, the Damfin tree, Myrobalan-plum tree, the Sebesten tree, the Jujube tree, the Cornel tree, the Lotus, the Cherry tree, to which we may ad the Ebony and the Guaiacum trees. II. The *Nut-bearers*, the Almond tree, the Walnut tree, the Hasel tree, the Filberd tree, The Chestnut tree, the Pistachio tree, Glans unguentaria tree, the Scyrax tree, to which many outlandish Nuts, must be referred. III. *Date-bearers*, such as the Palme, IV. *Mast-bearers*, as the Beech, the Oake, The Cork, the Suber, the Ilex and Smilax of the Arabians, whereunto also belong Mistletoe, Galls and Oake apples. V. *Berrie-bearers*, as the Sanders tree, The Mastick tree, the Frankincense tree, the Turpentine tree, the Balsam tree, the Sumach tree, the Cocconilea, the Ash tree, the Holme tree, the Linden tree, the Wild vine, the Ostystree, the Cotton tree the Maple, the Plantane, the Sassafras, the Ricinus, the Barbery tree, the Gooseberry tree, the Elder, the Laurel and bay tree, the Chamelea, the Thymelea, the Cneoron, the Myrtle, the Butchers Broome, the Raspberry tree, the Box tree, the Olive tree, the Agnus castus tree, the Pivert; the Primprint, the Philyra, the White bramble, Box thorne, the black berry bush, the Capar tree, the Savine tree, the Cedar tree, the Cypress tree, the Juniper tree, the Alparagus, the Eugh, and Dragon tree. VI. *Spice-bearers*, the Nutmeg tree, the Mace tree, Macer tree, the Cassia lignea or Canella, the Cinnamon tree, the Foliu tree, the Clove tree, the Peper tree, the Cubebes tree, the Amomum tree, the Graines of paradise tree, and the Cardamom tree. Hither also may Lignum Aloes tree be referred. VII. *Cod bearers*, as the Cytisus, Anagyris, the Acacia the Aspalathus Genista or Brown, Spartium, Scorpius, Clithen, Sena, Eutyonymus Nerion. VIII. *Cone bearers* as the cone bearing Cedar, the Pine, the Larch tree, the Pitch tree, the Fir tree. IX. *Cotlyn or cats taile bearers* as the willow, the Alder, the Elme, which beares also bladders, the Poplar tree. X. *Rote bearers*, the Rose tree, the Cistus and Cistus Ledum. &c. XI. *Brush trees*, Tamariske, Heath &c.

II. *Alto Herbes* are variously divided. For they are. 1. If we regard their roots, *Bul-*

bous, as the Bulbous flower delize, the stock gilloflower, Safron, Colchicum, the Onion, the Leek, the Squil, Garlik, Moly, Orchis or Cullions, and Satyrium or Dogs-stones &c. II. If we consider their *Leaves* they are, 1. *Long leaved and stalked*, as Grals, Rushes, Nardus, Cyperus, Horstaile, the Reed, Papyrus or Egypian paper, Xyris, Orice, Acorus, Galangal, Ginger, Zedoary, Costus, &c. 2. *Thick-leaved* as Houteleek, Venus navel, Aloes, Rhodia, Telephium, Purflane, Cepea Crichmum, Kali, Tragum. 3. *Hairie leaved*, Bortage, Gromwel, Cynoglossum, or Hounds tongue. 4. *Neruy leaved* as Gentian, Plantan, Flea wort, Bistort, Poild weed, Water-lilly, Cucko pinckle, Hellebore &c. 5. *Round leaved*, the two Birth-worts, Colts foot, Broad dock, Bur dock, Asarum. 6. *Hair like*, as Phyllitis, Hemi-onitis, Asplenium, Lunaria, Maiden haire, Polytrichum, Wal rue, Ros-folis, Ferne, Polypodie, and others. 7. *Thorny or prickly*, as the Thistle, Scolymus of Theophrastus Venus bason, Etyngos, Euphorbium, Dragant &c. 8. *Three leaved, five leaved &c.* 9. *Soft leaved* as Matsh mallows, Mercury, Rhubarbe. &c. III. If they beare *flowers* they are. 1. *Turn crowned and helmet fashiond*, as Mints, Calamints, Origanum, Penyroyal, Hyssop, Time, Stachas of Arabia, Lavendar, Vulgar spike, Ground pine, Oake of Jerusalem, Sage, Nettle, Betony, Eye bright, Scrophularia, Prunella, Hedge hyssop, Dictaninus &c. 2. *Star fashiond*, as Rubia, Gallion, Cruciate, Rue. 3. *Spir fashiond or lark beeld*, Aquilegium, Royal Comfrey, Toad flaxe &c. 4. *Button tufted*, as Cumin, Fenel, Dil, pellitory, Fennel-giant, Thapsia, Turpit, Hogs-fennel, Carot, Chervil, Smallage, Angelica, Imperatoria, Laserpitium, Panax, Caraway, Coriander, Anise, Pimpernel, Myrthis, Hemlock, Lovage, Filipendula. 5. *Berry bunchd* Elecampane, Pellitorie, Mugwort, Suezwort, Wormwood &c. 6. *Headed*, Scabious, Jacea, Cyanus, Scorzoneta, Caltha, Succisa, Cardus, &c. IV. If *Fruit*, they are 1. *Apple-bearers*, Mandrake, Cucumber, Melon, Pompion, Anguria, Gourd, Coloquintida, wild or Als cowcumber. 2. *Codded*, as are besides the pulses, and the por-herby sort, Hedyfarum, Ornithopodium, Polygala, Onobrychis, Galega, Glycyrrhize, Fumitory, Celondine, Aquilegia, Nigella. 3. *Cass carriers*, Garden Cresses, Shephards-pouch, Scurvy grafs, wild radish &c. 4. *Vessel-bearers*, as Centorie, Moufe care,

ere, Flax, St. Johns wort, Anagallis, Monny wort, Rupture wort, Poppie &c. V. If we regard their use, they are. 1. *Cornes*, as Wheate, Spelt, Barley, Rie, Oates, Blasted Corne, Rice, Miliun, Panicum, Phalaris, Indian Corne. 2. *Kitching beards*, as Rapes, final turneps, Iberis, Taragan, Campanula, Rapisfrum, Rocket, Mustard, Alliaria, Cole wort, Docks, and Patientes, Betes, Blites, Centaury the greater, Orach, Pellitorie, Mercurie, Lettice, fowthistle, Cichory &c. 3. *Pulses which are gathered*, as Beanes, French Beanes, Pease, Tares, Fetches, Lentils, Orobuz, Cicer, the Lupine, Fenugreek &c. VI. *If the manner of growing*, there are *convolvuli* or *Scandentes*, such as twist themselves about other plants or props and so reare themselves as are besides apple bearers and the pulses, Scammony, Soldanella, Salsaparilla China, Bryonie, Mechoacan, Hops, the Grape vine, Lilly Convally, Ivy, Indian, Watercreffes, Birthwort, Bindweed, Gramen parnassii, Saxifrage &c. VII. *If their juice*, some are *milkie plants*, as Tithymallus, Esula, Peplus, Peplis, Lathyries, and Chamaelyce &c. VIII. *If their place*, in which they grow, they are 1. *Garden wood*, *Field*, *Mountaine*, *Meadow* and *water plants*, as are Mols, Duckweed, Lungwort, Sea nettle, Sea weed, Arimart, Anagallis, &c. IX. If we regard the *virtues*, we shal find in a manner infinite differences of Herbs; of which I shal speak hereafter, as much as wil serve for our present purpose; and more largely and exactly, elsewhere,

III. The Humors of plants are best distinguished into *thickned juices*, *Gums*, *Rosins*, and *Pitch*.

I. *Thickned juices* are, 1. *Ammoniacum*, which is named from the Oracle of Jupiter Hammon, tis bred in a tree called Metopion. That is most approved which is sincere and unmixed and condensed into clotters like Frankinsente, smelling somewhat like Castorium, Bitter in tast, yellow without, white within, growing soft if it be wrought between the Fingers. 2. *Galbanum*, the juice of a Fetulous plant which grows in Syria. The best is gristly, yellow, fat, not woody, of a strong ungrateful smel, because it retains in it some of its seeds and sticks. 3. *Opopanax*, a juice flowing out of the root of Hercules his Allheale, That is most esteemed, which is white within, yellow without, bitter, strong sented, fat, milkie-like Galbanum, and when it is melted resembling a milkie liquor. 4. *Sagapenum*, or *Serapinum*, the liquor of an

herbe like fenelgiant growing in Media. That's best which is sincere, transparent, red without, within when it is broken, yellow, or compact of yellow or whiteish drops, growing soft between the fingers. 5. *Opium*, or a milkie liquor running from the stalke of a black poppie lightly gashed. The best is that which is white, or yellowish like the Haires of a Lionskin, congealed into a Mass as it were made up of little graines of divers colors, dirty and of a strong and virulent smel. 6. *Aloes*, which is either *Caballina*, or *Hepatica*, or *Socatrina* you must choose that which is fat, void of Stones, friable in winter, soft in summer, compact like the substance of the Liver. 7. *Scammony*, which is reserved of a milkie roote being cut, out of which it runs and is dried. That's best which is transparent, full of holes like a sponge, and when it is rubbed against the tongue it shewes a white liquor on its surface, resembling milke. 8. *Elaterium*, or the juice of the wild Cowcumber thickned, which is the most lasting of all medicaments; and that is best which is oldest. 9. *Euphorbium*, or a most sharp biting juice of a tree, resembling the ferula. That must be chosen which is pure, transparent, white or yellow, and biting, and which being lightly toucht with the tongue, inflames the mouth a long time after. 10. *Juice of Lycorize*, which is drawn out of the roots, and is condensed into Balls or little cakes. 11. *Succus Acacia*, a juice prest out of Acacia a plant in Egypt. Choose that which is moderately yellow and odoriferous. 12. *Acacia Germanica*, or the juice of boiled sloes, prest out, set in the Sun, and dried. 13. *Manna*, which is gathered in Calabria from the Ashen trees. Choose that which is white and not above a yeare old. 'Tis counterfeted by sugar pemies wrapt up in leaves of herbes. 14. *Gummi Gotte*, or *Cambogia*, *Gummi Gamandra*, *Gummi de peru*, which is extracted out of the Indian *Ricinus*. See thereof *Reudenius*, *Lotichius*, and *Bontius* in his *Medicina Indorum*.

II. *Gumms* are, 1. *Gun Arabick*; the best is transparent like Glais, unmixt, in crinkled bits representing wormes, and white. 2. *Gun tragant*, which drops out of the root of thorny plants, which the Greeks cal *Tragacantha*. 'Tis transparent, white, sweetish, light and sincere. 3. *Sarcocolla*, the teare of a tree growing in Persis, like fine frankincente, yellowish and bitterish. 4. *Gummi Hederae*, of a yellowish red color, strong smel, and biting tast. 5. *Cancanum*, or the

the teare of an Arabian tree, somewhat representing myrrhe, of a very strong tast. 6. *Lacca officinarum*, Gum lac of the shops, is made of the juice of a certaine tree, in Pegu and Malavar. Tis said to be made by the winged Pismires. 7. *Sanguis Draconis*, Dragons blood, or the juice of a certaine tree which being congealed, resembles dried blood. It makes water of a milkie color, but without mixture. 8. *Assa fetida*, or the Teares of Silpheum growing in Libia and other Countries. Choose that which is unmixt, resembling Garlick in smel, and clammy. 'Tis adulterated by the mixture of meal, bran, and Sagapenum. 9. *Champhire of the shops*, or the Resinous Teare of a certaine high tree. Choose that which is white, transparent as cristall, not spotted, fragrant, apt to crumble between the fingers, and which being set on fire, can hardly be quenched. 10. *Juniper Gum*, drie, hard, yellow, like mastich. Liquid Varnish is made of it and Linseed oile. I forbear to speake of Cherrie tree gum, Elme tree gum, &c.

III. *Resins* are either moist or drie. The moist are. 1. *Terpentine*, or a liquor which flows from the Trunk and boughes of the tree Terebinthus. The best is white, transparent, enclining to skie color, fragrant and biting. 2. *Rosin of the Larch tree*, or *Terpentine of the shops*, which is many times sold for the former. The best is the purest, most fragrant, somewhat transparent, and which falls hastily and equally from the finger dipt into it. 3. *Mastich* which flows from the Lentish tree, and seems referable to the Gum rosins. The best is white, shining, fragrant, crumbly, and which grows in Chios. 'Tis counterfeited, with a mixture of frankincense and Rosin. 4. *Olibanum of the shops*, or the liquor of an Arabian tree. The cheife is the male, that which drops out, round, white; the next in value is the *Orobium*, which grows in Amelum, which is smaller and yellower; the next to that is *Amomites*, which is white, and yeildes to the fingers when it is softned, like mastich. 5. *Myrrhe*, or the Tear of a tree which grows in Arabia, like the Egyptian thorne, which tree being cut it drops downe upon mats spread beneath. The Troglydytick myrrh is counted best, which is greenish, transparent and biting; the second in repute is thin and clammy like *Bdellium*; the third in value is that which is termed *Caucalis*, black and parched; the worst is the factitious which looks like Gum. 6. *Storox* or the

teare of a tree like a Malocotone growing in Syria. The best is yellow and fat, resinie, with whiteish drops; which being wroughed between the fingers, sends forth an honey-like moisture keeping the fragraney of the lump. 'Tis adulterated by the dust of a tree which the worms have made by their gnawing. 7. *Liquid Ambar*, or an oily rosin, of a most sweet and strong smel, flowing out of a certaine tree in the west Indies, called *Ocosocle*. 8. *Bdellium*, or the Teares of a tree in Bactria. That is most approved, which is bitter, transparent, like Bulls-glue, fat within, and easily growing soft. 9. *Benjuinum* or *Benjamin* a gum flowing from the wounded boughes of a certaine tall tree in the East-India's. The best has white spots in it resembling almonds, and grows in Zeilan. 10. *Tacamabaca*, or a Rosin which flows out of a wounded Tree which grows in Nova Hispania. In color tis like Galbanum, it has white nailes, a strong smel and tast, and sticks fast to the skin. 11. *Gummi Elemi*, or a transparent white teare, with yellow particles intermixt, reduced into a Mass; and rendering a sweet smel when its burnt. 'Tis brought out of Ethiopia. *Dioscorides* describes it yellow somewhat like Scammonie, and biting. 12. *Colophonia of the shops* is a dried rosin, of an oilie substance, yellowish, drie, and friable, being the remainders of the fir and pitch tree, when they are clarified by the fire, being thickned and hardned by cold. Choose that which is transparent, fragrant, and resembles the smel of frankincense when 'tis burnt.

III. 'Tis needless that I should ad any thing concerning *pitch*; Touching *Plants* consult the *Theatrum Botanicum of Bauhin*, which is now coming forth: to the more easie knowledge whereof my doctrine of *Plants*, and other Treatises, which in dispight of envie, I have in hand, shal lead thee.

But the knowledge of the *Virtues of Plants*, depends upon the signatures also, or similitudes, which they seem to have, with the *Parts, Humors, and Diseases*, whether it happen in shape, which is in this case most considerable, or only in sensible qualities, or in actions and manners &c. Howbeit, these notes are either *Fixed*, which are seen in seeds, Roots and Flowers: or *movable*, which are taken from Tast, Smel, Color, Shape, Hairyness, Smoothness, &c.

I. As for the *Parts of mans Body*, 1. The *Head* is represented by the Poppie, Wal-nut, Indian Nut, Peonie, Squil, Agarick, Lilly convallie.

convallie. 2. The *Eyes*, by the Graines of Herbe Paris, flower of Eye bright, Anthenis, Mary Gold, Hawkweed, Anemone, Scabious, &c. 3. The *Teeth*, by Henbane without cods, stones of a pomegranate, pine kernels, Toothwort, Leaves of Prick-Madam, root of the smaller Celandine. 4. The *Eares*, by Asarum and Garden Scurvigrass leaves. 5. The *Nose*, by the leaves of Menastrum Aquaticum. 6. The *throat or wax* and by Winter-green, Uvularia, Cervicariat and Cassia Fistularis. 7. The *Lungs*, by stony lungwort, spotted lungwort, lungwort of the Oak. 8. The *Heart*, by pome-citrons, The roots of Anchora, The anacardine Beanes. 9. The *Liver*, by Liverwort, the toad-stoole that growes upon Birch and Oake, the Herbe Lichn. 10. The *Spleen*, by Scolopendrium, Hearts-tongue, Lupines. 11. The *Stomach*, by Bindweed, leaves, Ginger, Galingal. 12. The *guts*, by Bindweed, calamus aromaticus, Cassia Fistularis. 13. The *Navil*, by Umbilicus Veneris. 14. The *bladder*, by Alkekengi, Bladder wort, Colutea, nightshade. 15. The *Privities*, by Cuckoes-pintle, Beanes. 16. The *Stones*, by several sorts of Orchis, Sacyrinum, Dracunculus, leekes, Stags pizzle. 17. The *wombe*, by Aristolochia rotunda, round burthwort, Mace, Sabine. 18. The *Reines*, by Purslane. 19. The *joints*, by Hermodactyls, Sarsa pariglia. 20. The *Hand* by Palma Christi. 21. The *Haire* of the *Head*, by the Moss of trees, and Maiden hair.

II. As for what concerns *Humors*. 1. *Cholor yellow*, is represented by such plants as have flowers or juices of a yellow or Safron-colour, as Aloe, Senna, Wormwood, Spurge Safron, Colquintida, Rhubarbe &c. 2. *Leek-colored Choler*, blites, Orach. 3. *Pale Choler* by Bryonie. 4. *Black-choler*, by such whole flowers, Leaves or juice, are blackish purple, or Skie-colored, as Beanes, Lentils, Vetches, Bortage, Buglofs &c. 5. *Fligim*, by white-flowered plants, as gourds, Lettice &c. 6. *Blood* by such as are of a red color, or staine with a red color, as Red Sanders China root, Fearnie root, Sorrel root.

III. As for *Diseases*. 1. The *Stone* is represented by Gromwel, white-Saxifrage root, nutshells and their kernels. 2. *Smal risings* by Lentiles. 3. *Excrescences* by Agaric, and Galls. 4. The *Jaundice* by Celondine, Saffron, Centaurie. 5. The *Polipus*, by the roots of the smaller Celondine

and polypodie. 6. *Lentigines, specks or spots*, by the white and speckled barke of the Birch-tree, and the Lichen which growes upon trees. 7. *Morpheues &c.* by Garlick, Cuckoo-pintle, Arisarum, Arimart, Lungwort &c. 8. *Wounds* by Through waxe, Millefolium.

Article, 3 Of animal Medicaments.

Animal Medicaments, are such as are taken either from whole living Creatures, or some parts of them.

All Livewights are considerable in a five fold difference, for they are either *birds* or *Four-footed Beasts*, or *Fishes*, or *Creeping things*, or *Bloodless-wights*.

I. Of birds, among those that live on Land are. 1. *Carnivorous*, that live on Fleth, The Eagle, the Vulture, the Hawk, the Kite, the Buzzard, the Cuckoo, the Falcon, Parrot, Crow, Jackdaw, the Chough, the Magpie, the Owle, the Barr, the Ostrich. II. *Plant feeders*, and they are either. 1. *Scrapers in the dust*, both wild, as the Peacock, Pheasant, Heath-cock, Bustard, Partrich, Quaille, Turkey-cock; and also tame, as the Cock and Hen. 2. *Or Scrapers and washers both*, as the Dove, Turtle, Pigeon, Sparrow. 3. *Or singers*, as the Linner, Gold-finch, Thistle-finch, Thrush, Larke. 4. *Berry-feeders*, as the Black-bird, Feldefare, &c. III. *Insect-eaters*. 1. *That sing not*, as the Pidanner, the Titmouse, the Wood-pecker, the Wren, the swallow, the Lapwing, the Muskin, a dishwasher, a Redstart, a Robin-redbrest. 2. *That sing*, as the Nightingal. Of those that live in the water. 1. *Broad-footed*. 1. *Fisbeaters*, the Pelicane, the Cormorant, the Sea-mew, the plurgeon, the Seagull, the Swimmer. 2. *Grass-eaters*, The Swan, the Goose, the Duck, the Moot-hen. II. *Cloven-footed*. 1. *Flesh-eaters*, the Storke, the Ibis, the Redwing, the Heton, the Porphyrie, the Kings fisher, the Ispis. 2. *Insect-eaters*, The Arquata, the Ctex, the Toranus, Dab-chick, Scolopax, Tringa, Junco, Cinclus, vaneller, &c. 3. *Corn-eaters*, as the Crane.

II. *Fishes* are, I. *Seafish*, and they are 1. either such as keep in the deeper, both scaled; as the stockfish, the Herring the Liparis, the Sea-bore, the Glaucus, the Horle-tail, and the Smooth, as the Tunie, the Pomprilus, the Ania, the Sword-fish, the Remora, the Conger, the Lamprey; also the griffis long-

long-shaped, as the Dogfish of Aristotle, the Galeus, the Catulus, the Sea-Weazel, the Star-Fish, the Blew-fish, the Thorn-back, the Sea-Ape, the Zigæna; and the plain flat sort, as the Torpedo, the Pastinaca, the Sea-Eagle, the Ray, the Sea-frog, the Sole, the Maid.

II. Or such as delight in stony places, the scaled, as the Gilthead, the Thrush, the Peacock, the Lepras, the Black-bird, the Phycis, the Sea-Perch, the Channe, the Liver-fish, the Black-tail, the Crow-Fish, Adonis, Sciana, Glaucus, Anthias, Lumpfish, Sphyrana, the Needle-fish, and the Smith-fish. Smooth, as the Sea-Lark, and the Pholis. III. Such as hunt the shoar, and they scaly, not flat, as the Mullet, the Swallow, the Cockoo, the Kite, the Harp-fish, the Phagrus, the Red-fish, the Acarnan, Orphus, Dentex, Synagris, Chromis, Gold-fish, Sargus, Sparus, Mormyrus, Cantharus, Salpa, Scorpion, Blennus, Combesfish, the Merlan, Anchoves, Atherina, Sarda, Menow, Smaris, and Ox-Eye. Scaled and flat, the Sole, the Place, the Flounder. Smooth, not plain, Sand Eels, Dragon, Little Dragon, the Stargazer, the Roughtraile, the Makarel, the Lizard, the Saurus, the Crow and the Kite. Smooth and plain, the Sparrow and the Rhombus. II. Sea and River hanters, and they, 1. Scaly, as the Salmon, the Pike, the Bream, the Alofa, Ziga of the River Albis, the Mullet, Goat fish, Sturgeon, and Galeus of Rhodes; 2. Smooth, as the Hulo, Sperlan, Lamprey, Eele and the Owl fish. III. River fish, and they are, 1. The Scaly sort, the Trout, Thymallus, Shade, Barble, the Pollard, Dace, Gudgeon, Rough, Millerthumb, Phoxinus, &c. Smooth, Atilus of the River Poe, Anracæus of Poristhenes, Ithiyocolla, Glanis, River-Wezel, the Dig-fish, Phoxinus and Salmon. IV. River and other fresh water fish, as the great Perch, the Scrollus, Pungitus of Albertus; Albumus of Aufonius, Epelanus, Pike, Carp, Tench, &c. V. Pond-fish, the Umbra, Carp, Pond-Trout, the Lavaret, of Geneva, the Saractus, &c.

III. Four footed Beasts, are, 1. Whole Hoofed as the Horse, the Ais, the Mule, Elephant, Zebra & Unicorn. 2. Clovenfooted, as the Elk, all kind of Oxen, the Camel, Panther-like Camel, Goat, Hart, Gulligut, Rangifer, Rhinoceros, and Hog. III. Having diverse toes, which are either such as bring forth Live-weights, as the Panther, Tigre, Bear, Wolf, River-Horse, Fox, Ax, Marmoset, Baboon, Badger, Castor, Otter, Pole-Cat, Weazel, Mars, Genetha, Hare, Conny, Squimel, Dog-

mouse, Mouse, Mole, Hede-Hog, Urchin, Cat and Dog: or, such as lay Eggs, whether the Eggs be covered with a skin or a shel: as the Frog, Lizard, Efr, Salamander, the spotted Neur, the Scincus, Cordilus, Chamelæon, Crocodile, and all kind Tortoises.

IV. Creeping things, or Serpents, both footless and footed, greater and lesser, as the Viper, Ammodits, Ceraftes, Hemorrhoids, Aipe, Diplas, Scyræle, Amphibana, Cacylia, Cenchius, Aconitæ, Drymus, Elope, the Snake of Esculapius, Water-Serpent, Boa, Sea-Serpent, Sea-Scolopendra, the Dragon, Basilisk, Dragon of Sythius, the Flying Dragon.

V. Bloodless weights, are distinguished in a five-fold manner. I. The Soft, as Polypus Sepia, Loligo, Sea-Hare. II. Crustieas, the Locust, Lobster, Squil, all kind of Crabs, and all crusty Shel-fish. III. Shelly, as Nautilus, Purpura, Murex, Buccinum, Turbants, Topsal Oysters, Pearl-fish, Lobstars, all kind of Snails, Sea-Combs, Miculi, Tellina, Pinna, Biffus, &c. IV. Plant-animals, of which see Authors. V. Insects, which are either 1. Land-Insects both footed, as the Bee, Wasp, Horner, Butter-fly, all kinds of Flies, the Cricket, Grasshopper, Beetle, Palmire, Loufe, Flea, Spider, Sow, Wood-loufe; and without feet, as a worm, a Snaile. II. Or Water-Insects, as the Horse-Leech, Hippocampe, Sea-star, &c.

The Parts of Animals which are used in Physick, are either such as are common to all Sorts, or proper to every one. Of both which we shall treat elsewhere.

Article. IV. Of Medicines taken from the Body of Man, or the little World.

Microcosmick medicaments, are Medicines which are taken from the body of Man, to cure the infirmities of Mans body.

These medicaments are taken out of a Live Man, or from a dead man. From a live man, we have Hairs, Nails, Spittle, Ear-wax, Milk, Seed, Blood, Menstrual Blood, Secondines, Urine, Dung, Lice, Wormes, Stones of Bladder & Kidneys, &c. From a dead man, Skin, Fat, Scul, Brain, Teeth, Bones Mummy; of which see Daniel Beckerus in his Medicus Microcosmus, and Hartman.

Chap. 2. Of Compound Natural Medicaments.

Article, I. Of the Medicinal Wels.

And so much shall suffice to have spoke of simple medicaments; the Compound follow, which are compounded either by Nature, or by Art. Of the former sort are the *Aque Acidule*, or Physical and Medicinal Wels, and the *Natural Baths*.

The *Aque acidulæ*, or medicinal Wels, are waters which from certain minerals being furnished with a sharp taste and other Virtues, doe cure diseases, when rightly used.

I. That same acid or sharp taste, from whence these waters have their name, is not in all of them alike strong. Some are sharp, others winy, others have scarce a sensible tartness. Sometimes also the self same Wels are so sharp as to cause a Dysentery, sometimes again they are without any taste, otherwhiles very grateful to the palate; which happens, either through the extremity of hot weather, which exhales their best parts; or by reason of rainy weather, whereby the waters are allaid with the rain; or through a cloudy, dark air with south winds, which peircing into the bowels of the earth, and the veins of mineral waters, makes them clayish, troubled and thick; or through a pestilential and general contagion of the Air; or by overflowing Rivers; or finally, which seldom happens, by reason of some Earthquake.

II. The Minerals which are wont to Virtuate the waters, are: Rusty okre, Iron okre, salt, Nitre, Vitriol, Coperas, Myli, Sory, Iron stone, Chalcitis, Alum, Copper and Iron; especially the four latter. Vitriol and Alum have for certain a remarkable sharpness; that iron has the same quality, we see in *Vitriolum Martis*; and in the Wood of *Arden* there are many acid Fountains; in which wood there is plenty of Iron. And that Copper is not void of Acidity, is hereby manifest, in that there is Vitriol in it, and therefore wherever there is a Copper mine, there is also one kind of vitriol or another. You may know what Minerals they are, either saving the water, by considering the nature of the place whence it springs, taste, smell, tangible qualities & contents thereof; or by washing away the water, by Sunning, Distilling, or Boyling. Now the waters are impregnated. 1. By an *alutious* or spirituous substance. Hence the water becomes light and thin, has no bubbles, is easily

altered: being drunk, either it presently strikes up into the Nose, or pierceth and cuts the Eies, or causes belchings, or fills the Head, or stirs up a kind of giddiness; nor does it stick long in the Hypochondria. 2. By a moist substance, when liquid mineral juices are thereby imbibed. 3. By a solid substance, which communicates its qualities & powers to waters, if there be a proportion between the waters, and what is fercht off from the said substance; if the waters have been long infected therewith, and other waters mingle not with them; finally, if the fragments of metalls be divided into exceeding small parts. From the diversity of Impregnation, there arises a Diversity of Acidity. They are sharp, wherein the Quantity & number of acid minerals is greater, & the sharp quality more Intent. They are Winy in whom their Quantity is less, & Quality more remis. *Obscurely acid*, in which there is very little of the foresaid minerals, and the acid quality is languishing.

III. Touching the Virtue of these medicinal acid springs, observe. 1. That they cure diseases by *Alteration*, *Corroboration*, *Evacuation* by stool, if the belly be loose; by urine, if the party is inclined thereto; by sweat if the skin be thin, compact, and the Habit of the Body loose; by vomit if the stomach be cold, and the waters contain in them much sulphur; yea by many waies at once as *Van Heer* shews, in his Treatise of the Spaw waters. 2. That those waters have more of the mineral virtues in them, which we find in their native place, where the minerals grow, or in their Channels; which have imbibed liquid juices; which have in them friable & crumbly stones and earth; which slide through a mineral matter, plentiful, soft, rare, porous, a long way, narrow, uneven, full of turnings, headlong and with violence; those less, which scour through mines, only in one place, which scour from juices less concrete, stones and metalls; have drunk in little mineral Virtue, and run a short, wide, even and strait way. 2. That it may be foreseen and prognosticated, whether they will be good or bad; the signs of their goodness are, the Natural Constitution of the four Seasons of the year, the purity and healthiness of the Air, Moderation of Rain, moderate blowing of whollom winds, &c. of their badness the signs are contrary.

IV. They are rightly used. 1. In respect of the Persons, if they are not given to decrepitate persons, Children, Women with child, consumptive persons, tympaned persons, An-

sacra-droptied, Dysenteric, Asthmatick, menstruate or Rein-exulcerated persons. 2. In respect of the time, if they are not drunk when they are altered, if not in the winter Season, unless upon extraordinary occasion and all things suitable; if they are given to drink when their signs argue them to be at the best, if chiefly in the Spring, morning and evening, if in their place of springing, or not far off. 3. In respect of the use of things foregoing, if the body be prepared with a Lenitive, blood-letting, opening of the passages, driving away hurtful Humors. 4. In respect of the Use of things circumstantial, if they be so drunk, as to rise by little and little to the highest dose, and to stop there a while, and so to descend by little and little to the lowest Dose; if the measure prescribed be divided into parts, if good diet be observed &c. 5. In regard of things following their use; if the Body be duly stirred. If diligent consideration be had, which way nature inclines; that is to say, whether they are like to work by stool, Urin, or Transpiration, or by many waies at once; if being retained, they may be brought away by convenient Clysters; if such Symptoms as usually occur, be provided against.

IV. How there are many acid Fountains, and medicinal springs in Europe, the chief of which are in Germany. 1. The Spaw-Waters, and they are four Wels in number, Geronsler, Rouhont, Savinire, and Tunnelet. 2. Those of Greishbach at the Entrance of the Hercynian Forrest, which are seasoned with Iron, Vitriol, Christaline salt, Bitumen & Sulphur. 3. The Petrine Wel in Alsatia, a quarter of a mile distant from the former, & is qualified by some minerals. 4. Antegast Water, situate at the Entrance of the Hercynian Wood, which is impregnated with Alum, Sulphure, and a little Vitriol. 5. Ribelsave-water, by the said Wood, in the County of Fustenberg, which has in it the spirituous subtilties of Iron, Nitre, vitriol, Chalcitis, Bitumen. 6. Gebresweil Water in the upper Alsatia, which is virtuated by Alum, Nitre, and Iron. 7. Schwalback-Water. 8. Egran Wel, in Bohemia. 9. Nideraven Spring near Rottenburg. 10. Denachen Wel in the Hercynian Forrest. 11. The Federan Wel in Rhetia, which contains Alum and Coper, with a little Sulphur. 12. Wels of Treuire, which are three, one of which runs through a yellowish earth and Iron. I shal pass over the rest in silence. At this present while I am writing, many things, and they truly; miraculous, begin to be reported of the

Wels of Horn-Hause, in lower Saxony. Touching those acid waters see Sebiqz, Baccius, and others whom ye shal find in Vandae Linden de Scriptis Medicis.

Article. II. Of Bathes

Bathes are hot waters, which bubble perpetually out of the Earth, are heated by the Subterranean fire, and having gained Vertue from divers Minerals, they cure Diseases, being fitly used.

I. They are hot either at their Head, or in their Channels; either more or less.

II. They leap and bubble out of the Earth, because they have their Rise in an high Place, either in Mountains, or at the foot of a Mountain, as experience shews. They bubble up perpetually, for the most part, because the Earth is alwaies moist, and the subterranean Heat does alwaies carry up vapors to the Concavities of Mountains, which where they cannot exhale, they are condensed, compressed, and turn into drops of water. Yet bathes are found, which rise & fall with the Ebbing and Flowing of the Sea. Nor do they alwaies flow out at one place: because the secret passages are either destroyed or stopped up.

III. The Heat of Bathes comes from the subterranean fire, which is kindled by an indifferent hot exhalation, thin and enflamed, getting among the Sulphur and Bitumen, by which it is fed. Either the waters run through those hot subterranean places, or in the way they are joined to the flames and Heat; or they run so long above or by the Channels, til they grow hot; or whiles the Earth grows hot by underground fires, many vapors are from thence raised, which being at last, in some wide place turned to water, they do in one place or other seek an out-gate: or lastly, two or more metalline waters, being naturally cold to the touch, do in their converse grow hot through repugnancy of their Spirits; an example whereof we have in spirit of vitriol, and oyl, or salt of Tartar, also in Aqua fortis and Tartar, in Butter of Antimony and spirit of Nitre.

IV. Subterranean matters which virtuate the Bathes, are divers: partly minerals, partly metalls; which may be gathered from the severall Bathes. Now how that comes to pass, and how the Materials in them may be known, I shewed before.

V. The Diseases that are cured by them, are also various, the Colick, Mother-fits, Stone, Barrenness,

Bartenness, Headache, &c. Some of which they cure directly, others by accident.

VI. They are used to drinke, for which intent, they are bad, which have some hurtful metalline property in them; also to bathe, Foment, in stoves, and by application of their clay: of al which see besides Fallopius, Horstius and Rulandus in Balnearium restauratum.

VII. The principle Bathes in Italy are, the Bathes of Padua, out of which the most famous bathes of Ebanus comes, made of a mixture of sulphur, Alum, Nitre, Salt, and Chalk; the Porritan Baths, forty miles from Bononia; the Lucan, the cheise of which is that which is termed de Corseno; Sante Maria in Bagno, Situate in Romandiola, Aquea in the County of Pila, Petriola, in the Dukedome of Sena, ful of alum; Grotina, in the Earldome of Viterbium, which consist of iron & brats; Perusina, which participate of a little Sulphur and Asphaltum; Montis Catim, which are all salt, &c. In Germany are commended the Plumbaria, in Lorraine, so called from the plentiful admixture of Lead; Badenfer in Switcerland, which consist of much sulfer and a little Alum; Ferina in the Dutchy of Wittemberge; Cellenser, not far from the Martian wood; Amensfer, situate neare Rotenburge; Embenser, in the borders of the Lake of Constance; the Carolina in Bohemia; the Wirbadenser situate not far from Mentz beyond the Rbene; Gastainences in Bawaria, which by vehement Astriction, do facilitate Conception; Abudiacæ above Reginoburgum, which smel like fried Eggs, &c. See of all Rulandus and Weckerus. Of the Fountain of Bollen, very useful both in drink and bathing, Jobannes Baubinus has writen.

Chap. 3. Of Compound artificial Medicaments in General.

Compound artificial medicaments are those which are by art made up of the simple, into a certaine forme, being first prepared and qualified thereto.

There are touching them considerable. 1. The Necessity of the Composition. 2. The structure. 3. Preparation. 4. Fermentation. 5. Division.

I. The necessity of compounding Medicaments appears from these reasons following. 1. The preternatural Disorders of the body, being many times compounded, cannot be cured by simple Medicaments. 2. The Parts affected in regard of their situation, temperment, conformation, dignity of their action,

with the Constitution of the Patient, shew the need of compounding. 3. The Quality of the medicament, which is sometime necessary to the Intention, but not proportioned to the disease; sometimes is too weake, other whiles too strong, or infected with an adverse quality; al which requires composition.

II. Touching the structure, observe. 1. That the Manner thereof requires, that we have a precognition of the sort of Disease, and its magnitude, the condition of the sick, and of the part affected; also the natures, faculties, degrees, and doses of the simples. 2. That the Medicament is then best accomodated, when it is just equal to the disease, both in quality, the propriety whereof must be determined by the particular Nature of the disease, & in degree which is measured by the greatness of the disease & the Nature of the part affected. 3. That every compound Medicament consists of five things. 1. the Basis which is considered in general. 1. It is the measure of the faculty, degree, and dose of the compound. 2. It varies, according to the times of a disease, the urgent symptoms, nature of the part affected, constitution of the sick, Quantity and quality of the other ingredients. 3. It takes its determinate Quantity from its own strength, having also an Eye to the Nature of the Patient, the Magnitude, sense and Dignity of the Part affected, the Celerity and tardity of the Action: if specially considered, tis either simple or compound; Simple, which either is for one use only, though consisting of divers ingredients of the same faculty; or it consists of one simple medicament which is either sufficient, or remiss, or intense, or furnished with some malignant or strange Quality, as odor, tast &c. Compound, which either serves for divers uses, or is compounded of many simples, endued with a diverse and contrary faculty; touching which observe, 1. That such is used, when we have not that degree in a simple, which we desire, but either more remiss, or more intense. 2. That in its composition regard must be had of the first, second, and third Qualities. 3. That either it consists of divers simples of the same faculty and degree: & then it is of the same faculty & degree: or of the same faculty and a different degree; and then that which is remiss abates that which is intense, and that which is intense enhances that which is remiss, to the middle between both: or of contrary faculties & of the same degree, and then it is temperate: or of contrary faculties and different degrees, and then it is reduced to a medium between both:

both: al which ought so to be understood, that both the equality of Quantity be observed and fermentation excluded. II. With *correctives* which either spur up and quicken a dul lazy basis; or collect and augment the strength of a medicament, which is of thin substance; or excite by extenuation the force thereof, being lodged in a thick matter; or restrain the violence thereof; or temper its malignity; or give it a pleasant taste or smel. They ought alwaies to be of a lesser Quantity in respect of the Basis, and commonly the proportion of the Basis to the corrections, is judged to be triple: yet certain it is, that the Nature of the Basis and the Correctors, as also the Intent of the Physician, do vary the same. If the mallice of the basis is to be tempered, they are added in an equal Quantity. III. With *Directives* which render the medicaments proper for the part affected, open the waies and passages, prepare the humors, and concoct them, in respect of which a weake basis should be exceeding in an eight fold or octuple proportion, a strong one, should be equal or less. IV. With *conserves*, which fasten the directors and correctors to the basis, and give a fitting forme to the whol compound; and which ought neither to dul the basis with their overgreate Quantity, nor to pervert the same by any strange quality.

III. Preparation of Medicaments, is either common, as boileing, Infusion, Roasting, burning, Calcination &c. Or chymical which, I. Is either *diacritical*, which dissolves the combination of the body, or by way of *purification*, to which belong *Drying* and *burning*; or by *Calcination*, which is performed by actual or potential fire, to which *Sublimation* belongs; or by way of *Resolution*, whereby a body is dissolved into divers and heterogeneous parts, and which is performed by *Extraction* and *Tincture*; or by *Pretrefaction*, or finally by distillation. II. Or *Syneritical*, which conjoines things divers and separate into one body, whether it be done by *Precipitation*, or by *Reduction*, or by *Coagulation* and *Concretion*, or by *Digestion* and *Circulation*, or finally by *Cobebatio* or the repeated distillation of a liquor poured againe and again upon the matter from whence it has been distilled. III. Or *Immutatory*, which induces a new mode of substance, or quality into a thing, whether it be done by *Deliquium*, or by *Fixation* or *Volatization*, or by *Vitrification*. Of these consult *Beguine*, *Sennertus* about the end of his book of the

Consent and dissent of the Chymists and Galenists, and others.

IV. The *Fermentation* of Medicaments is nothing else but their union by mutual Alteration, by which means the old virtues of each of them do no longer remaine entire. It is chiefly to be regarded in Treacle and Methridate.

V. As for the *Division*, compound artificial Medicaments, are *Internal* or *External*. The former are *fluid*, *Solid*, or *middle consistence*. And the latter are divided into as many sorts.

Chap. 4. Of Compound artificial Medicines in Special.

Article, 1. Of Internal Medicaments.

Point, 1. Of internal fluid Medicaments.

WE call those internal Medicaments, which are received by the mouth into the Body; and those we terme fluid which will run like water, and they are. 1. Decoctions. 2. Infusions. 3. Potions. 4. Medicinal Wines. 5. Medicinal Beer or Ale. 6. Oxy-mel. 7. Barley water. 8. Medicinal Vinegar. 9. Distilled waters. 10. Syrup. 11. Juleps. 12. Emulsions. 13. Essences. 14. Spirits. 15. Tinctures. 16. Oiles.

I. *Decoctions*, are made of vegetables, animals, &c sometimes of minerals, if need be, cut, bruted or shaven, boiled in simple or prepared water, over a slow or quick fire, in a vessel open or shut, to the consumption of a third or fourth part of the liquor, the Decoction being afterwards strained, aromatized and clarified. The most noted decoctions are, *The greater aperitive decoction* of the Physicians of Augsburg, with their *Decoction of Rubarbe*, *Decoction of Maiden haire* *Fumitory*, *Carminative*, *Galline consummatum* of a Capon, and the *Vulnerary Decoction*.

II. *Infusions* are made of Vegetables, or minerals, purgers or vomitories, steeped a certaine time in some liquor, and afterwards strained forth. The proportion of the Ingredients to the liquor, is one and an half, or double.

III. *Potions* are made, when purging Electuaries, Extracts, pouders, routes &c. are mixed with liquors, without boileing.

IV.

IV. *Medicinal Wines*, are prepared, when new or clarified Wine is impregnated with the Virtues of simples, either suddenly by their oyles, spirits, and tinctures, or by long Infusion, either with or without sugar. The principal are wine of Barberies, Quinces, Pomgranates red Corants.

V. Medicinal beers and Physick Ales are made after the same manner.

VI. *Oxymel* is made, when vinegar is mingled with Honey, and plants are sometime steeped therein. The most famous are, the Simple, that of *Squils*, the *Helleborate Oxymel of Gesnerus*.

VII. *Barley water* is made, when barley is sufficiently boiled in water, alone, or with raisins, anis-seed, cinnamon; strained, and made tart with a drop or two of spirit of Vitriol, or of Sulphur.

VIII. *Medicinal Vinegar* is made, when simples or compounds are steeped in vinegar, or it is made of their juices. It is made of Plants. 1. Of their *Flowers* as vinegar of rosemary-flowers, of Marrygolds, of Gillyflowers, of Lavendar, of Poppie, of Red-poppie, of Roses, of elder flowers. 2. Of their *Leaves*, as of Mints, Rue, Scordium. 3. Of their *Fruits*, as of Citron peeles, Strauberries, Rasberries. 4. Of their *Roots* as vinegar of *Squils*. There are also compound vinegar, Antidotary, Preservatory, Bezoardick &c.

IX. *Distilled waters*, either by a Cucurbita in Balneo Mariae of plants for the most part of cold Nature, whol, or beaten and juiced; or in Vesica, out of hot plants and such whose force is not easily drawn forth, and which must first ferment. They are made either with wine, as Wormwood water, Agtymony, Betonie, Carduus, Cinnamon, Liverwort, Lavendar, Lilly-convally, Baume, Pernyroyal, Garden sage Veronica, or without wine, as are those of Sorrel, Wood-sorrel, &c. Of which see the Dispensatory of Augsburge. They are also made of Animals, as of Capons, Singingbirds, Kidnies, Mans blood, dung of Beasts &c.

X. *Syrups*, are made of decoctions, Infusions clarified juices; they are preserved with honey or sugar, & boiled to the consistence of honey almost, and are used both to alter and purge; seldom alone, frequently mingled with a double quantity of distilled waters. Those kept in the *Shops*, are, Syrup of wormwood, or juice of Citrons, of Sorrel, wood-sorrel, Vinegar simple, of vinegar compound,

of Maiden haire, of sour grapes, of Marshmallows, of Orenge, of Mugwort, of Betony Simple; of Betony compound, of borrage, Byzantinus, to cold, simple and compound, of Maidenhaire simple, of Cichory simple, of Cinnamon, of Corals, of Citron peeles, of Quinces, of Endive simple, and compound, Of Eupatorium, of Colts foot, of Fumitory Simple and compound, of Lycorize, of Pomgranates, of Jujubees, of Hyssop, of Lemons, of Hops, of Baum, of Mints, the Simple and compound, of Myrtiles, of waterlilies, of Poppies, of red poppies, of Cowslips, of Pionie, of Moule-eare, of Apples Simple and Compound, of Purslain, of Horehound, of the five opening roots, of Roses Simple, of dried roses, of Rasberries, of Scabious, of stechados, of Comfrey, of Violets.

XI. *Juleps* are made of distilled waters, juyces, conserves, and sugar, either, without decoction or with decoction.

XII. *Emulsions* are made of seeds, nut kernels, perles, corals, hearts-horne, certaine fruites, being beaten with some liquor poured on, and then strained forth.

XIII. *Essences*, are made of the juice of green herbes pressed out with spirit of wine, and digested in Balneo Mariae, where they receive their color separated by inclination, and with a little sugar reduced into the forme of a Syrupe.

XIII. *Spirits* descend in the distillation both of Simple and compound waters, together with the waters themselves, and are afterwards separated from them, by a Cucurbita, vial, &c. But this must be understood of the more volatile sort. The fixer sort, are drawn out by a Retort, and a stronger fire, viz. With sand, or the bare fire. The cheise drawn from *Minerals* are, of Alum, of coral, Mercury, Sal ammoniack; Common Salt, Nitre, Lead, Ambar, Sulphur, Tartar, Vitriol; of *Vegetables*, are, of Wormwood, Wine-vinegar, Angelica, Anisseed, Carduus, Centorie, black-cherries, Scurvy-grass, Quinces, Elder-berries, Fenel, Strawberries, Guajacum, Juniper-berries, Lilly-convally, Baume, Rosemary, Roses, Sage, Danewort, Linden-flowers, Fluellen, wine &c.

XV. *Tinctures* are made of dry Plants, for the most part hot beaten & steeped in some liquor, which is called the Menstruum, as spirit of Wine, May-dew, or some other, set in an hot place, and the vessel shut, so longe as that the liquor wil receive no more colour; and then they are filtered through a Paper, or purified

purified by digestion. The most renowned, ate. 1. *Of Minerals*, Of the Sun, Moon, Mars, Saturne, Antimony, Sulphur, Vitriol Smaragd. 2. *Of Vigitables*, and chiefly of flowers, of Winter-cherries, Saffron, Black-cherries, Strawberries, St. Johns wort, Peony, Red poppie, Roses, Violets, Elder-berries, Dwarfe elder &c.

XVI. *Oyles*, are drawn out of gummie & rosinny substances, either descend with waters in distillation, or are separated from them, either by a separatory, or by thick linnen threads, or by brown or otherwise sinking paper; in some materials, they sink to the bottom, the more remarkable are, oile of wormwood, Dil, Angelica. Of which see beneath in the first point of the third article.

Point, 2. *Of internal solid Medicaments.*

Internal solid Medicaments are. 1. *Powders*. 2. *Salts*. 3. *Saffrons*. 4. *Flowers*. 5. *Precipitates*. 6. *Vitri*. 7. *Glass*. 8. *Fecula dregs*. 9. *Confects*. 10. *Lozenges or bits*. 11. *Trochisks*. And 12. *Pills*.

I. *Powders* consist of one or more medicaments beaten together. They are either *Subtile*, which if they consist of meer spices, and sugar, their proper and peculiar name is, *Tragemata* or *Tragee*, dredge powders; to which *Sales Sacerdotales*, or the Parsons Salts are to be referred, which are used with meat; or *grosser*, and are termed *Tragee grosse*, and *species incise*, and are made either of simples, and they either confectioned over with sugar, or not sugared; or of compounds, viz. the aromatick roules or Lozenges of the shops. We use them both for Evacuation and Alteration. Among the *Purging* sort are, *Pulvis senæ preparatæ*, *Tartari Chrystallini solutivis*, *de Tribus*, *Cholagogus simplex*, *Cholagogus infuscoatus*. Earle of Warwicks powder or *Pulvis Cornachinus*. Of the *Electuary* of *Benedicta Laxativa*; *Eleoscoph*, *Hiera picra*, *Diaphenicon*, *de Succo Rosatum*, *Diaturbith cum Rhabarbaro*. Among the *Alterers* are, the species or powder of *Aromaticæ Caryophyllata*, *Dianthos*, *Diacalamintes*, *Diacinnamomum*, *Diagalanga*, *De Gemmis calida* and *frigida*, *de Hyacintho*, *Diaureos*, *Lacificans*, *Liberans*, *Diamargaritum calidum*, *frigidum*, *Diamoschu dulcis*, *Diatrion pipereon*; *Diatrhodon Abbatis*, *Ro-*

sata novella, *Diatrion Santalon*, *Diatragacanthum frigidum*, *Diaxylo-Aloes*, &c. Hitherto appertain *Alexipharmical* powders or *Ancidotes*, such as *Pulvis Saxonicus*, *Cæsariæ*, *Gasceignes powder*, *Viper Powder*, *Countess of Kent's Powder*. Of these and other like Medicaments see the *London Dispensatory* in English.

II. There is in all things, very near, a two-fold salt, *Volatile*, by some called *Essential*, which sustains not the force of fire, but flies away, and is dissipated in calcination: and *fixed*, which is prepared of the ashes of plants and woods, of which a lie is made, and that is boiled, til al the water exhale, and then the salt remains. 'Tis purified, either by frequent solution and filtration, and recoagulation: or if it be dissolved *per Deliquium* in a moist place, let it be filtered, and again coagulated. The *Principal are*, Salt of Wormwood, of Mugwort, of Crabs, of Carduus, Centaury, Chervil, Harts-horn Volatile, of Mans scul Volatil, Eyebright, Bean-shells and Ham, of Strawberry Leaves, Fumitory, Guajacum volatile, Ground Ivy, Juniper berries, Juniper wood, Marjeram, Feaverfew, Bawm, Nitre, Onone or rest-harrow, Arismart, Pimpernel, Rue, Sage, Mans-blood, Scordium, of amber Volatil, of Tamarisk, of Tartar, of virriol vomitive, of Urine, Nettles, Zedoary, of Jove, Saturn, Corals, Pearls, &c.

III. *Saffrons* are subtile powders, or tinctures, reduced into the form of powder, of a Saffron color, the principal are, *Crocus Metallorum*, which is nothing else but Antimony calcined with Nitre, and reduced into a powder of a saffron-color, of thin, to which is the *Sulphur Auratum of Antimony*, and of *Mars*, which is divers waies prepared, of which see the Chymists. *Terra Vitrioli* is not unconveniently referred to the Head.

IV. *Flowers* are by Chymists so called, being for the most part the more subtil particles of a body, separated from the grosser substance by Sublimation. The most vulgar are, *flower of Brimstone*, *Antimony*, *Benzoin*, to which pertain al other *sublimates*, the chief of which are *Mercurius sublimatus simplex*, and *Sublimatus dulcis*, *Arcanum Corallinum*, &c.

V. The name of *Precipitate* is chiefly attributed to *Mercury*; which having been dissolved in *Aqua fortis* is separated from the Solvent water and settles, and receives the name of *Mercurius Precipitatus* or *Turbith Mineral*; to which in its precipitation, if a little gold

gold be added, 'tis called *Aurum Vita*. Hereto pertains *Bezoardicum Minerale*, *Mercurius Vita*, and some other things.

VI. Glais is made of the Calces of things, if the Ashes or Calx be melted with an exceeding strong fire, and Borax be sometimes added to hasten the Melting, or other melting powders; the matter being melted, is poured upon an hot bason, or some plate. Thus is the Glais of Antimony (or stibium commonly called) and the amber of Antimony made of those Cups, Rings, and purging moneys may be made. Touching the *Vitrum Auratum Antimonii*, and the *Regulus Antimonii* see the Chymists, especially *Schroderus* in his *Pharmacopœa*.

VII. *Fecula* is a mealy powder like starch, and is made of the juice of certain roots pressed forth, or extracted with liquor, which when placed in a cold place, the fecula settles of its own accord, which, the water swimming on the top being poured off, is dried in the shadow. The most usual are *Fecula Bryoniz*, *Arii*, *Pæoniz*, *Iridis*, *Serpentariæ*, white Lillies, Squils.

VIII. *Confects* are things preserved dry, invented for to gratifie the tast; and they are made both to alter and evacuate. The chief are, of sweet almonds, of Aniseed laxative, of *Calamus Aromaticus*, *Cardamoms*, *Carway*, *July-flowers*, *Cichory*, *Cinnamon*, *Coriander*, *Musk Plums*, *Cubebs*, *Fennel*, *Lavender Flowers*, *Pimpernel Roots*, *Pine Kernels*, *Zedoary*, *Ginger*. Hitherto belong *Candied things*, which are crusted with *Sugarcandy*, as *Acofus*, *Orange peels*, *July-Flowers*, *Cinnamon*, *Citron Peels*, *Nutmegs*, *Muscatel-Pears*, &c.

IX. *Rouls* so called from their shape, for they are either altering or purging, and are prepared with Sugar, whose vulgar proportion is octuple in alteratives, quadruple in Purgatives, more in stillatitious oyls. The principle are, *Rotule de Berberis*, *Manus Christi* simple and perled, pectoral rouls. Of Sulphur, &c.

X. *Morsuli*, morsels, are made almost in the same maner. They are either *Alteratives* as the *Bezoardic*, *Cephalic*, *Cephalico-stomachic*, of the juice and peles of Citrons, *Pectoral Sugars*, *Rosatium Tabulatum*, &c. Or *Purgers*, as *Diacarthami*, *Diaphenicon*, of *Mechoacan*, of *Jalap*, of *Diaturbith cum rhubarbaro*, &c. or *Nutritive*, which are made of the pulp of *Capons*, *Partridges*, *Cockstones*, *Flesh of Crabs* and *Tortoises*, &c. To morsels appertain. 1. *Pamdeleon* so called,

the Matter and end whereof agrees with *Electuaries* or *Lick-pots*, and the form with *Lozenges*, save that the *Pamdeleon* is shapeless.

2. *Turiones*, as if you would say, *torrones a torrendo* from roasting, which are made of sweet almonds, Nut Kernels, Pine Kernels, beaten or roasted, and made up with honey.

3. *Confections restorative*, as *Diamygdalcaum*, *Pineatum*, *Testudinatum*, *Diet bread*, *Naples bisket*, &c.

XI. *Trochisci*, or *Parfills*, are solid cohering medicaments, consisting of convenient ingredients made up with Liquor, in the shape of Lupines, or little flat bowls; invented to this end, that medicaments being poudred, might be in this form the better preserved against the Injuries of the Air. They are prepared of all kind of medicaments, not only powders and Species, but with addition of thickned juices, *Conservs*, *Extracts*, or the like *Confections*, the dose to the Powders in being a proportion somewhat less then quadruple, &c. They are either *alterative*, & *Wormwood*, of *Alipta*, *Moschata*, with *Amber of Mosch*, or without, *Bebicis albi*, *Nigri*, *Rubri*, *de Berberis*, *de Camphera*, *de Capparibus*, *de Carabe*, *de Carrallio*, *Cypheos* of *Democater*, *de Lacca*, *de Myrrha*, *de Spodio*, *de Terra sigilata*, *de Vipera*, &c. or *Purgers* of *Agaric*, of *Coloquin-tida*, &c.

XII. *Pils*, are medicaments reduced into the form of little bals, that they may be swallowed whole, and the unfavorinets of the ingredients, not discerned by the Tast. They are made of powders extracted out of the mass of usual pils, the simples being made up with some liquor. They are either *Alterers* of *Bdelium*, *Bechicæ*, or for the *Cough*, of *Castoreum*, of *Cynoglossa*, *Narcotick pils* of *platerus*, &c. or *Purgers*, of *Agarick*, *Agregative*, *Alephagine*, of *Aloes tolata*, of *Amoniacum Arthriticæ*, *Assajeret*, *Aurez*, *de Colocynthide*, *de Hermodactilis*, *Mastichinæ*, *Panchimagoga*, &c. They are also distinguished into *Hypoglorudes* and *Narcotica*.

Point III. Of internal medicaments of a middle Consistence.

Internal Medicaments of a middle consistence between fluid and solid, contain under them.

1. *Extracts*. 2. *Rosins*. 3. *Conservs*. 4. *Conserves*. 5. *Quiddennies*. 6. *Electuaries*. 7. *Lick-pots*. 8. *Soapes*. and 9. *Bolles*.

An *Extract* is drawn as a tincture, and is reduced

reduced to the Consistence of Honey, Pils, or powder. The most usual are, of wormwood, of Acorus, of Lignum aloes, of Angelica roots, of round Birthwort, of Carduus, of Gilloflowers, of Castoreum, of Centory, of Celandine, of Safron, of Cubeb, of Dictamus, of Enula, of Galingal, of Gentian, of Guajacum, of Masterwort roots, of Baume, of Mint, of Mace, Marjoram, of Broad dock, of Pæonie, of Rue, of Savine, of Satyrnum roots, of Scabious, of Scordium, of Comfrey, of Tormentil, of Valerian, of Zedoary.

II. *Rosin* is drawn out of Gummy materials with Rosewater and spirit of wine, separate from the feces by inclination, precipitated and dried with a gentle heat.

III. *Conserve* is made of flowers, sometimes of herbes, and soft roots bruited, and preserved with a double quantity of sugar. The most usual are, of the tops of Roman-wormwood, Carduus, Eye-bright, Fumitory, Marjoram, Penyrroial, Veronica. Of the *Leaves*, of Sorrel, Wood-lorrel, Scurvy-grass, Mints, Purslane; of *flowers* of Acacia, Betonie, Borrage, Bugloss, Marygolds, Cichory, Broom, White-lillies, Lavendar, Lilly-convally, Mallows, Baume, Mints, Water-lillies, red Poppie, Peach-flowers, Primrose, Prunella, white and Red-roses, Sage, Elder, Linden, Savory, Colts-foot.

IV. *Preserves* are made of roots, barks, Fruits, or harder materials, steeped in water or boiled; or of softer, preserved in sugar or honey, to last the better and to be more grateful to the Palate. The more usual are these following. Of the *roots* of Calamus aromaticus, Borrage, Cichory, Comfry, Elecampane, Eryngoes, Pimpernel, Rhubarbe, Satyrnum, Scorzonera, Zedoarie, Ginger, both that of China, and the common sort. Of the *flowers* of Oranges, Citrons; the *fruits* of Oranges, Barberies, Cherries, Citrons, either whole, cut in slices, or dried; or of the pulpe of Quinces, bramble berries or Hips, Apricocks, Medlars, Myrabolans bellirican, Chebulan, Citrine, and Emblican; of Wallnuts, and Indian nuts, of Peaches, black-peper in the branch, Sloes, Prunes, Damians &c. Of *Peeles* of Aurenges, Citrons. And stalkes of Spanish Lettuce.

V. *Robor* or *Quiddiny* is the thickned juice of fruits, sometimes of flowers, either with expression, or without expression, boiled and with a like quantity or somewhat more of sugar added. The *cheise* are, of Barberies,

Cherries, Hips, red-corants, Elder berries. Hitherto belong *thickned juices*, of Wormwood, Acacia, Agrimony, Aloes, Carduus, kermes berries, Elder berries, centaury, Quinces, Elecampane, Fumitory, Lycorize, Hedge-Hyfsop, St. Johns wort, Henbane, Hypocistis, our blew Orice, Licorize, Mercury, Myrtils of germanie, Nicotiana or Tobacco, Opium, Plantane, Red-Roses, scrophularia, and Solatrum. *Ad herunto* Mel Ebulinum, Sambucinum, Juniperium, and Passulatum.

V. *An Eleuary* is made of Conserves, Spices, Roules, Trochiscs, a proportion of juice or tyrup being added. The *Cheif* are, Venice Treacle, Mithridate, Alkermes, Confectio Anacardina, Autea Alexandrina, Electuary of Bay-berries, *de Scoria ferri, de Ovo, Philonium Mesue, Persicum, Romanum, Dioscoridum, Trypbera magna*, so named because they give a good color to the whole body, and make the breath sweet, and are made up of curious ingredients.

VI. *Elegma*, or *Loboch*, or *Lick-pot*, of pouders, species, conserves, juices, mixed with some liquot or syrupe, used against infirmities of the Lungs and Chest. The most usual are, *de Scilla compositum, de Caulibus, de Farfara, de Papavere, Passulatum*, of the Pine kernels, of Purslane, of Fox-lungs, Lohoch-sanum and expertum, and succo Scillæ &c.

VII. *Saponea*, is a Lick-pot made of almonds blanched and beaten, and with sugar dissolved in a convenient water boiled to the consistence of Honey, starch and rosewater being added towards the end.

VIII. *Bolus*, a moriel, is made of Electuaries, pulpes, conserves, spices, pouders with a little syrupe, made into the shape of a little bal; given to purge, vomit, alter, or some other purpose.

Article, 2. Of external Medicaments.

Point, 1. Of external fluid Medicaments.

And so much for compound internal Medicaments; the *external* follow; which are either *fluid*, or *solid* or of a *middling nature*, or indifferent. The *fluid* are. 1. *Clysters*. 2. *Gargles*. 3. *Mouth-washers*. 4. *Oiles*. 5. *Epithemes*. 6. *Pumpings*. 7. *Lotions*.

1. *Clysters*, are medicaments, which by a convenient Instrument, are cast through the fundament into the Guts. They are made of
Roots,

Roots, Barkes, Leaves, Flowers, Fruits, boyled in water and strained, some other things being added, which may serve the Intent of the Physitian. Their use is to loosen the belly, to cleanse, dispel wind, to bind, to todder, to allay the paines, of the Guts and kidneyes.

II. *Diachysmata* or *Mouthwashings*, are medicaments, which are kept in the mouth, and are by the tongue moved up and down without swallowing. They are chiefly provided for paines of the Teeth and Diteales of the Jawes.

III. *Gargarismes* are medicaments, with which the throat is washed without swallowing down, the humor being forced up and down by the breath. They are made of distilled waters, or convenient decoctions, neither unpleasing in tast nor smel, nor haveing any venemousness in them; in which some tyrupe or Quiddione is dissolved. We use them in repelling, discussing, ripening, absterfion, consolidation.

IV. *Oiles* are made either by *distillation*, as aforesaid: or by *expression* of the oleaginous juice, when the fruits and contused seeds grow warme with the vapour of hot water, and being put in a bag are squeezed in a Press: or by *infusion*, either when the simple medicaments with simple water, or distilled water, wine or other convenient liquor, are boyled in common oile, til the Humor be consumed: or when the same simples are macerated in a gentle Heat, or in the Sunn; or when dried plants, are with oile digested in balneo Mariae, the oile being afterwards pressed out and clarified. The *Oiles pressed out* are these; Oile of bitter Almonds and of sweet, of Hazel-nuts, of Hemp seed, of Cherry kernels, of Citron seeds, of Roker, of Henbane, of Walnuts, of Baies, of Mace, of Nigella, of Nutmeg, of Ripe and unripe Olives, of Eggs, de palma, of Poppie, of Peach kernels, of Pine kernels, Pistachios, Rape, Ricinus, fetamus, Acorns. *Oiles by infusion in the Sun*, and simple are these, Oile of Wormwood, Southernwood, Dil, Chamemel, Cheiri, Quinces, Elicampne, Euphorbium, Pulmites, Ground-ivy, Jafemine, Orice, Priver, of Lillies, Lilly convally, wormes, Maltich, Mint, Melilote, Myrtils, Nard, white lilly, Populeum, Frogs, Roses, Rue, Elder, Scorpions, Storax, Mullen, Violets. *Boiled Oiles*, compound, are these following: of Capers, Gaitoreum, Costus, St. Johns wort, Lilies, Marjorum, Mandrake, Nard, Poppy, Peppers, Foxes. *The stillatitious oiles*, most

in use are these. Of Wormwood, of dil, of Angelica, of Anis, Orange-peeles, May-butter, Benzoin, Calamus aromaticus, Camphire, Cardamoms, Caraway, Cloves, Wax rectified, Chamemel, Chervil, Cinnamon, Bark of Citron, Cunin, Cubebs, Euphorbium, Fenel, Galbanum, Guajacum, Hyffop, Juniper berries, juniper wood, of Tiles philosophick, of Mace, Marjerom, Maltich, Baum, Mints, Myrthe rectified. Of Nutmeg, of Origanum, of Peper, of Peny-roial, Rosemary, of Roses, of Sage, of Savine, Wildbettony, Spike, White amber, yellow Amber, Tartar, Terpentine, Zedoarie.

V. *Epithemata*, *Epithemes* are applied to the external parts of the Body, and are made of distilled waters, juices, infusions, suitable to the part and diteate. To them belong *Oxyrrhodina* *Rose-vinegred* *Epithemes*, which are peculiarly applied to the forehead, with frequent reiterations, to coole and repel. They were anciently made of Oile of Roses and vinegar; now a daies distilled Oiles and waters, as also juices and pouders are sometimes added.

VI. *Pumping or pouring*, is when common water, bathe water, decoctions, Milke, Oile &c. are pumped or poured down upon some part, or suffered to dril upon the same out of a cock or spout of a sifterne or Ewer. They are applied chiefly to three places, viz. the suture of the Crown of the Head, the Beginning of the spinal Marrow, and to warme the stomach.

VII. *Lotions* are either of the whole Bodie, and are called Baths, or of the parts, Head, Hands, Feet, Belly &c. They are made of the same things as fomentations are made of.

Point, 2. Of external solid Medicaments.

External solid Medicaments are: 1. *Suppositories*. 2. *Pesseries*. 3. *Plasters*. 4. *Cerates*. 5. *Cautsticks*.

Suppositories, are solid Medicaments, which are put up into the fundament, being formed round like a wax candel, four or five fingers breadth longe. They are made of Honey boyled to thick, that it may be wrought and fashioned with a mans fingers, into which other requisite materials are sprinkled. They are used to loosen the Belly, the patient being weak; to cleanse and consolidate an ulcer in the *Rectum Intestinum*, to stop paine, draw back humors flowing upwards, and kil worms in the Guts.

II. *Pessaries* are made of towzed wool or cotton, wreathed into the forme of a mans finger, impregnated with some juice or Liquor, either alone or with pouders commixed: or of beaten medicaments made up in a mortar with convenient liquors, as Fat, Oile, waxe, Ladanum, Galbanum, Honey, and wrought into the forme of a pessarie: or of green herbes a little bruised, and bound with a string into the shape of a pessarie. Or of pouders, received in thin wool or Cotton, and bound with a thrid into the forme of a Pessarie. Or of pouders received in thin wool or Cotton, and put into a round bag made of thin cloath, which may be included in a round silver Instrument with holes on the sides, made for that purpose.

III *Plasters* properly so called, are Medicaments, which being spred upon linnen Cloathes or leather, do stick fast to the Skin of the body, & are the same with cerotes in respect of the matter, save that metals and mineralls, and litteridge for the most part, are added, which give it solidity of substance. All which are boiled to a just consistence, and being cooled are made up into rowles. Sometimes before the Mass is quite cold Cereclothes of old linnen are dipped in, and taken forth. *Emplasters improperly so called*, which are of a middle consistence between a plaster and a Cataplasme, are made without waxe, pitch, and those gle with materials, or fire; with honey, mucilages, and a certaine clammy creame, or a little wax dissolved in Oile. The cheife Plasters are, Album coctum, Apostolicum, Arthriticum, Basilicum, and Lapide Calaminari, Diachylon simplex, Magnum, Parbum, cum Gummi, Citrinum, de Crusta panis, de Baccis Lauri, de Meliloto, de Minio, Mundificativum, Nervinum, Oxycroceum, Diaphenicum calidum, frigidum; de ranis Vigonis, de Rhabardaro, Sparadrap, Sticticum, Paracelsi, Tetrapharmacum, Vesicatorium.

IV. *Cerotes* which consist much of wax, and are not of so hard a consistence as Plasters, are made either of wax, Oile, and Rosin only, or of the same pouders being added besides, so that the proportion of oiles to pouders is octuple, to wax triple or sextuple, to rosin twelve times as much. Besides all these, fats and gums are added, juices, roots, fruits, or seeds, which must first be boiled, and the colature is afterwards to be boiled with oile, til the watrish liquor be consumed. The *Principle* are, Cerot of Betonie, Diacalciteos, Diapalma, Infrigi-

dans Galeni, Oesypti, Diapixer, pro Hermostis, Santalinum, Sparadrappum, Vigonis Stomachale.

V. *Cauteria*, Cauteries, are medicaments which have a power to burne the Body, and to raise a crust, and they are either *Actual*, which consist of red hot metals, of which in our discourse of Chirurgerie; or *potential*, which are made by burning medicaments, and composed of Lie which soap is made of, boiled into a consistence of Salt, or of a stone almost, which is vulgarly called *Lapis corrosivus*. An Ulcer made by a Caustick or Cautery, is commonly called a *fontanel* or *issue*.

Point, 3. Of external medicaments of a middle consistence.

External medicaments of a middle Consistence are. 1. *Balsams*. 2. *Liniments*. 3. *Unguents*. 4. *Cataplasmes*.

I. *Balsams* are made of oiles incorporated with white wax deparated, or oile of Nutmegs by expression, or the marrow of a Calfe washed, or manna clarified. Also the extracts of things whose balsom is desired, may be mingled with them. The *most usual* are these; of Angelica, of Anise, An Apoplectick Balsom, with musk and civet, of Oranges, of Cloves, of Cinnamon, of Citrons, Cubebes, of Lavendar, of Mace, of Marjorom, of Mints, of Nutmegs, of Rose-mary, of Roses, of Rue, of Amber, Zedoary. There are also *distilled Balsomes* which are nothing else but distilled spirits (and a potion of oile) proceeding from rosins, gums, spices, and such like drawn out with spirit of wine. The *most usual* are, Balsamus vitæ, Nervinus, Antiarthriticus, &c.

II. *Liniments*, are Medicaments of a middle consistency between an oile and an unguent, and are made by adding to Oiles, Butter, Fat, Suet, Marrow, juices, pouders, rosins, teares of trees; in this proportion for the most part, that to one ounce of oiles, two drams or three of fats be added, one dram of spices; sometimes though seldom, a dram of wax is added. All are mixed either with fire, or without fire, or boiling; sometimes they are set over the fire to melt the gums and fats; and sometimes they are a little boiled to consume and wast away the juices added.

III. *Ointments*, differ from Liniments by their thicker consistence, and are made either without fire, or with fire, of fats, oiles, gums, pouders, usual ointments of herbes, roots, seeds,

seeds; macerated in water, wine, juices, oiles, and boiled to the Consumption of the liquor. The most usual are of Agrippa, Aegyriacum, Alabastrinum, Album camphoratum, Altheæ simplex compositum, Apostolicum, Archarita, Aureum, Cicutinum, Comitissa, Infrigidans Galeni, Martiatum magnum, de Nicotiana, Tutia, Pectorale, Pomatum, Populeon, Potabile, Resumptivum, Rosatum, Rubeum Camphoratum; ad Scabiem, Enulatum cum, and sine Mercurio, Apertivum. Of al which see the London Dispensatory in English.

IV. *Cataplasmes* or *Pultesses*, are Medicaments made up in the form of water-grewel or hasty-pudding. They are made, either, *without fire*, which they terme *crude*, when green herbes bruised are reduced into a *Pultis*, or dried and powdered. They are mixed with a double or triple Quantity of some convenient Oile or Liquor: either *over the fire* or with boiling, when either the Plants broken or bruised, boiled til they are soft, and drawn through a searse; to which mucilages, meales, oiles, are added, or the Plants are soon after boiled in Oile. Hitherto may be refered, 1. *Droopax*, or *Pitching*, which is made of pitch melted with oile and other things, that it may stick more strongly to the skin. 2. *Sinapisinus*, or a *Cataplasme*, which is made of Mustard, and other things of like biting nature. If it be of the milder sort, tis called *Rhanigmus*, because it makes the skin looke red, if strong, tis termed a *Vesicatorie*; and is made of vesicatories.

Point, 4. Of external Indifferent Medicaments.

I call those indifferent medicaments which are sometimes prepared liquid, sometimes solid, sometimes of a middle consistence: and they are, 1. *Apoplegmatisines*. 2. *Dentifrices*. 3. *Nose-remedies*. 4. *Sneezer*. 5. *Perfumes* or *pomanders*. 6. *Soapes*. 7. *Burningfumers*. 8. *Eye-salves*.

1. *Apoplegmatisines*, are medicaments which being held in the mouth, draw stegit out of the Head and neighbouring parts: They are prepared many times after the same manner that *Gargarismes* are: sometimes medicaments are beaten, and with some convenient liquor brought into the form of an electuary: sometimes whole simples are only held in the mouth and chewed: sometimes being beaten they are with honey or wax reduced into trochisks: and sometimes they are shaped into a nodule.

II. *Dentifrices*, *Teeth-scrubbers*, are prepared to cleanse, whiten, and fasten the Teeth to contract the loosened gums; either fluid, or in forme of a Liniment, Pouder, Trochisks.

III. *Eribina*, *Nose-Medicines*, are put into the Nostrils, either in a moist forme, which are either powred in, or anointed on; or in a dry form, and then either they are figured out of convenient roots or stalks, into a pyramidal forme, and are steeped in water and so used; or the powder of simples are blown into the nostrils; or tents of wool or cloath are wet with some juice or water, and being sprinkled with pouders are thrust up into the Nostrils; or pouders are with mucilage, Gum, Turpentine, Oile or Wax, formed into Pyramidal pencils.

IV. *Pharmica*, *sneezer*, differ not much from the former, and procure sneezings.

V. *Odours* are made of such things as have a sweet smell, and are either fluid, or are made up in the forme of an Apple, Pouder, Liniment.

VI. *Soapes* are made of *Castle-soape* shaven, and about a sixt or eight part of some convenient pouders mixt therewith, and with some liquor made into a mass of which wash-bals are framed.

VII. *Suffitus*, *Perfumes to burn*, belong to *Odors*, and are prepared in form of Pouder, Trochisks and Pyramides.

VIII. *Eye-salves* are used externally to the Eyes, and are prepared either drie, being beaten very small in a mortar; or moist, which either are distilled into the Eyes in form of a Liquor, or anointed upon them in form of a salve; or Vaporous, which being boiled in water, the vapour exhaling from them is received into the Eyes, the patients Head being to that end covered with a cloath of Linnen. But touching all these consult the *Medico-chymical Pharmacopeia* of Dr. John Schroder, which I commend to students of Physick above all others.

Chap. 5. Of Medicaments denominated from their Faculties.

Article, I. Of altering Medicaments.

Point, 1. Of bot Medicaments.

SO much may suffice to have spoken of Medicaments simple and compound. Medica-

ments denominated from their faculties, are either *Alterres*, or *Causers of Motion*, or *Producers of somewhat*, or *takers away of somewhat*, or *Resisters of Poison*.

Altering Medicaments are many waies differenced: for they are *Temperate*, *Hot*, *Cold*, *Moist*, *Dry*, *Digesting*, *Emollient*, *Hardning*, *Relaxing*, *Rarifying*, *Condensing*, *Shutting*, *Opening mouths of veins*, *Attenuaters*, *Openers*, *Incassaters*, *Emplasticks*, *Deobstrueters*, *Abstersives*, *Pain-asswagers*, and *Narcoticks*.

I. *Temperate* are such as exceed not in the first *Qualities*, as are Maiden haire, Asparagus, Lycorife, Pine kernels, Jujubes, figs, Sebestens, Raisons, Dates, Gum Elemi, Gum dragant, Veale-suet, Goat-suet, Hogs-grease, sweet oile.

II. Things are *hot*, in the first, second, third, or fourth degree.

I. Things hot in the first degree are such as do scarce sensibly heat the Body, as, The *Roots* of Marsh mallowes, Beares-Brech, Beres, Buglois, Lycorize, Satyrium. The *leaves* of Wormwood, which some count hot in the second degree, of Marshmallowes, Borrage, Buglois, Beres, Beares-Brech, Colewort, Chamomel, Dodder, Liverwort or Agrimony, Fumitory, Toad-flax, Melilote, Malabathrium, Spicknard, Scolopendrium, Comfres, Coltsfoot. The *Flowers* of Borrage, of Buglois, of Betony, of Oxe eye, Melilote, Chamomel, Black poplar, Scachados, Groundsel. *Seeds* of Coriander, Fennigreeke, Line, Gromwel, Sefamus, Rice. *Fruits*, Sweet almonds, Chastnuts, Jujubes, Cypress nuts, Green wallnuts, ripe Grapes, ripe Mulberries, Sweet fragrant Apples. *Barks*, of Mace, Guajacum, Tamarisk. *Liquors*, *juices* and *Gums*, Sugar, Bdellium, Ladanum, Gum Hedera. *Suet* of a Kid, a Doe, an hart, new fresh butter.

II. *Those Medicines* are hot in the second Degree, which manifestly heat, but without Hurt. As the *Roots*, of Smallage, Cappars, Hogs-fennel, Pimpernel, Nape, Zedoaty, Rhodia. *Leaves* of; wormwood, Calves Inout, Greendil, Angelica, Smallage, Mugwort, Betonie, Calamus odoratus, Chamepitys, Fænum græcum, Hypericum, Ivie, Hops, Baume, Hoar-hound, Feverfew, Basil, Chervil, Pimpernel, Hogs-fenel, Polium, Rosemary, Savory, Sage, Scabious, Scordium, Stechados, Tansey. *Flowers* of Amomum, Safron, Gilloflowers, Schazanth, Lavendar, Hops, Baume, Rosemary. *Seeds*,

of Dil, Smallage, Orobus, Rocker, Basil, Nettle. *Fruits*; of Cappars, Nutmegs, Pistachives, drie figs, drie nuts. *Barks*; of cassia lignea, Cinnamon, Franckincense, of Cappar roots. *Liquors*, *Gums* Rosins; Wine which is not old, Ladanum, Aloe, Galbanum, Myrrhe, Mastich, Franckincense, Storax. Fat, Lions-fat, Panthers, Beares and Foxes greafe.

III. *Hot in the third degree* are such things, as doe vehemently Heat, and with trouble, but without Corruption: as the *Roots* of Acorus, Asarum, Squils, Dictamus, Doronicum, Fennel, Galangal, both the Hellebors, Enula Campana, Orice, persley, Radish. *Leaves*; Southernwood, Asarum, Agnus Castus, Arum, Ammoum, Bishops-weed, Dry dil, Baccharis, Dictamus, Avens, Ground Oak, Cnicus, Centaury, the greater and the less; Celondine, Calamint, Flea-bane, Menthastrum, Fennel, Epithymum, Elecampane, Juniper, Hyfop, Bayes, Marjoram, Cockow-Pindle, Mint, Nigella, Ananthe, Bindweed, Persley, Sneez-wort, Peny-Royal, Rest-harrow, Rue, Savine, Wild-Time, Water-mint, Time, Trefoil, Vervain, Nettles. *Flowers*; Agnus Castus, Epithymum, Leucoium, Ananthe, Periclymen. *Seeds* of Bishops-weed, Amife, Amomum, Carway, Cardamom, Water-Cresses, Fennel, Carot, Cummin, Nigella, Navew, Persley, Sefeli, Staphes-acre, Agnus Castus. *Fruits*; Juniper Beries, Cloves, Carpoballamum, Anacardia, Pepper. 4 *Barks*, of Mace, *Liquors*, *Tears*, *Gums*, old Wine, Afa dulcis, fæcida, Ammoniacum, Cedrian, pitch, Opopanax, Motch. *Metaline* substances of Brass, Burnt Brass, scales of Brass, Verdigreife, Diphryges, Alum, Salt, Nitre, Sulphur, Vitriol.

IV. *Hot in the fourth degree*, are such as heat with the greatest damage to the *Humane Body*: as, *Rootes*, Garlicke, Onion, Costus, Leeks, Pellitory. *Leaves*, Pepper-wort, both the Water-creffes, the Headed-Leek, Fullers Herb, Thapsia, and Spurge. *Seeds* of Water-Cresses, Mustard. *Fruits*, Pepper; *Gums*, Euphorbium: *Metaline substances*; Vitriol, Orpment, Sandarach, Chryfocolia, Mily, soty, Melantheria.

Point II. Of cold Medicaments

Cold Medicaments are such as alter the *Body of Man* by cooling, and they are such, in the first, second, third, and fourth degree.

I. *Cold in the first degree* are such as scarce sensibly

sensibly coole the Boody of Man, and they are Roots of Mallows; Leaves of Orach, sharp-pointed-dock, apple-tree, Myrtle, Pellitory. Flowers of, Mallows, Roses, Violets; Seeds of Barley, Millet. Fruits, Citron-pulp, Quinces, Peares, Prunes. Juices concrete, Acacia, Dragons blood. Stones, hyacinth, Saphire, Smaragd.

II. Cold in the second are such as manifestly cool, but without hurt, as the Leaves of Blite, Dandelyon, Lettuce, Duck-weed, Hyacinth, Sorrel, Plantane, Solomons Seale, Flea-wort, Nighthshade. Flowers, of yellow Anemone: Fruits of Gourd, Cucumer, Galls, Auranges, Peaches, Damask prunes, Pumpions, Pomegranates. Wood, of Sanders.

III. Cold in the third degree are, which do indeed vehemently coole, but without destroying or corrupting the Body: as Roots of Mandrake, Leaves of Purslane, mandrake, Houfeleek, Henbane. Flowers Balauftian. Seeds, of Hemlock, Henbane, Poppie. Fruits, Golden Apples, Mad-Apples. Juice of Hypocistis.

IV. Cold in the fourth degree are such things as corrupt by cooling and destroy the body; as Leaves of Hemlock, Poppie. Fruits of Thorne Apple. Juices; Meconium, Opium, according to the vulgar opinion. See thereof Doringius, Hartman, Frestagiur.

Point, III. Of moistning Medicaments.

Moistening Medicaments, are such as by their moistening faculty alter the Body of Man. And the most are such only in the first and second degree.

I. Moist in the first degree are Rootes; of Satyrium, Buglofs, Lycorize, Mallows, Rapes; The Herbs of Buglofs, Helxine, Mallows. Flowers of Buglofs Mallows, Endive. Seeds of Mallows, Selamus. Fruits, the pulpe of a Citron, Jujubees, Sweet Almonds.

II. Moist in the second Degree are, Herber, Violet leaves, water-lilly-leaves, Orach, Blite, Lettuce, Duck-weed, Purslane. Flowers; of water-lillies, violets. Fruits; of the Gourd, Melons, Pepons, Peaches, Damask prunes, ripe Grapes, Sugar.

Point, IV. Of drie Medicaments.

Drie Medicaments are such as alter the Bodie of Man by drying; and they are so, in the first, second, third and fourth degree.

I. Dry in the first degree are Rootes; Bryonie, Madder, Ananthe, Tamarisk, Marshmallower, Cucko-pintle. Leaves; of Bete, Coleworts, Chamamel, Fenel, Hyacinth, Malabathrum, Myrtle, Mullein. Flowers, of Oxe-eye, Chamamel, Safron, Hyaciuth, Melilote, Roses. Seeds of Beanes, Fanugreek, Barley. Fruits of Juniper Berries, Chastnuts. Gums, as Franckincense.

II. Dry in the second degree, are Rootes; of Cappars, Cichory, Raddih. Herber, Pimpetnel, Mugwort, green dil, Betonie, Dodder, Calamus aromaticus, Endive, Sea-Colewort, Shepherds-pouch, Hort-taile, Tooth-pick, Mint, Wild mint, Plantane, Rosemary, Spicknard, Comfery, fumitory, Pimpinell, Sorrel, Vervaine, Shepherds-Rod. Flowers; Balauftians, Peony flowers, Anemoneyes, Ground-pine, bind-weed and stachados. Seeds; of Fenel, Garden-creffes, lentils, Orobus, Millet, Rice, Poppie, Nighthshade. Fruits; Ballanus Myrepfica, Cappars, Quinces, Cypress-nuts, Nutmegs, Peares, Pistachius. Wood, of Sanders, Teares, Gums, Rosins; Galbanum, Opopanax, Stone-pitch, Myrrh, Storax, Mastich, Honey.

III. Drie in the third degree are Rootes, of Acorus, Afarum, Smalladge, cinnamon, Doronicum, Galangal, Hellebore, Pentaphyllum, Hollow-root, Squil, Three-leaved-lorrel, Trefoile. Leaves and Herbs; Fearn, Milleteile, Cinquefoile, Polium, Trefoile, Southern wood, Wormwood, Burnt dil, Smalladge Bishops-weed, Afarum, Calamint, Ground oake, Ground-pine, Epithimum, Hyslop, Juniper, Marjorum, Hoare-hound, Origanum, Hogs-fennel, Perteley, Sneeze-wort, Rue, Savine, Willow, Wacemint, Time, Runing-betony. Flowers, of Balauftians, of Epithimum, of Ground-pine of Bind-weed. Seeds of Dil, Smalladge, Bushop-weed, Amomum, Anis-seed, carway, Cumin, Coriander, Nigella, petseley, Gromwel, Agnus Castus, Grana tinctorum. Fruits; Cloves, Carpobalsamum, Galls, Peper, Juniper Berries. Juices and Gums; Aloe Acetum, acacia, camphire, motch. Metalline matters, Flower of brass, burnt brass, Scales of brass, verdigreese, diphryges, alume, Salt, Nitre, Sulphur, Chalcitis.

IV. Things dry in the fourth degree are of herber; wild Rue, Garlick, Water-Cresses, Mustard. Of the Metalline Medicaments, Vitriol, Orpment, Sandarach, Chrytocolla, Mity, Sory, Melanchetia.

Point, V. Of Medicaments, digestive, Emollient, Hardening and Loofening.

Digestive Medicaments are such as assist Nature in concocting such humors as are preternaturally offensive.

They are also termed *preparatives*. Now they prepare, either by removing impediments, or by changing the Qualities which resist the action of Natural Heate, respect being nevertheless had to the part wherein the Humors reside.

They are differenced according to the difference of Humors which they prepare. *Yellow cholera*, requires things cooling and drying; and if it be thin, it requires thickeners. *Flegm* stands in need of Heaters, Dryers and attenuaters. *Melancholy* is corrected by things moderately heating, moistening, and attenuating. *Black cholera* by things cooling, very much moistening and attenuating.

A Catalogue of these Medicaments may be drawn from such as are attributed to every part of the Body, of which we shall speake anon; and therefore to avoide tautologie, we omit them for the present.

II. *Emollients*, are such medicaments as soften and dissolve such Humors as are compacted together, either primarily, as a gleewish excrement in the bands of the Muscles; or secondarily, viz. when the thinner parts being either digested, by the unseasonable use of Resolving Medicaments, or being driven away by overmuch use of Repellers, the remaining parts grow compacted.

The Greekes call them *malactica*: and they must be hot in the second degree, a little dry, of a daubing faculty so as to hinder distillation; and they must be mingled with moistners. They are either *Indifferent*, or *Strong*.

I. Things indifferently emollient. I. Of *Simples*, are the *Roots* of Lillies, Marsh-mallows, wild Cucumber, Bryonie. *Leaves* of Mallows, Pellitory, Violets, Dwarf-elder; Elder. *Flowers* of Chamemel. *Seeds*, of Fenugreek, Line, Sefamus, Mallows. *Fruits*, fat Figs. *Fats*, fish butter, fat of an Hen, Hog-grease, Calves-grease, Kids-luer, Weathers-luer, al marrowes. &c. Of *Compounder*, oile of Lin-seed, sweet-almonds, White-Lillies, Worms. *Ointments*, of Alchea, Unguentum resumptivum. *Emplaster*, de Mucilagibus.

II. The stronger sort are Beares-grease, old oile, bdellium, liquid storax, fat rofins,

Ammoniacum, Galbanum, Emplastrum Diachylon simple, and cum Gummi.

III. *Hardners* are opposed to *Emollients*; the Greeks call them *Sclerotica*, or *Sclerumonta*, and they are cold and moist, as, *Sempervivum*, purslane, psyllium, Duckweed, Nightshade.

IV. *Relaxers* are Medicaments which abate the distention caused by some matter, vapor, or wind, filling and stretching the spaces of the parts. They are moderately hot, very moistening, and of thin substance, for the more easie penetration, as Lillies, seeds of Line, Fenugreek, Fats, Butter, Chamemel Oyl.

Point V. Of Medicaments which Rarifie, condense, stop, and open the mouths of the Vessels.

Rarifying Medicaments, are such as open the pores of the Skin, and make them wider, that the Vapors may be better transpired. They are moderately hot, of thin parts, and not drying; such as are, among Herbs, Marsh-mallows, Mercury. *Flowers* of Chamemel, Melilot, Elder. *Seeds* of Fenugreek, Line, Oyl which is old, and Butter.

II. *Condensers* are, such things as contract and straighten the small pores of the body, but are not able to compact the whole part, strongly, and every where. They are of a watry Nature, as, cold water; of Herbs, Purslane, Houlleck, Flea-wort, Moul-ear, Duckweed, green Thistles, Prick-madam, the greater and the lesser.

III. *Stoppers*, by their thickness, do so stick externally upon the pores of the body, that by their coldness and dryness, they contract the part. There are of this kind, *Astringents* so called. Such as are, among *Simples*, the *Roots* of Tormentil, Plantane, greater Comfrey, dry water Lillies, Sorrel, Curmallow, Filipendula, peony, Avens, Strawberry, Bistort, Rhaponticum, Rhubarb roasted. *Leaves*, of plantane, Knotgrass, Gnaphalium, Lool-strife, Solomons Seal, Horstail, Shepherds-pouch, Moul-ear, Oak. *Flowers*, of Roses, pomegranates, Ivy. *Seeds*, of plantane, purslane, Sorrel, Roses. *Fruits*, Quinces, Medlars, Barberries, Services, Cornel-berries, Galls, Raisin-stones, Cypress nuts, myrtle berries. *Shells and Rinds*, of pomegranates, Frankincense tree, myrobalans, mulberries. *Gums*, of mastich, Dragons blood. *Juyces*, of Hypocistis, sour Grapes, Acacia. *Minerals*, Terra ligillata, Bole arnemack, blood-stone, Allum, Coral, Iron. Of *Animals*, Harts-horn

horn prepared, Stags pizzle, &c. Of *Compounds* are, *Water* of Roses, purslane, plantane, privet. *Syrup* of red Roses, Quinces, Barberries, marmalade of Quinces, Diacodium narcoticum, Crocus martis astringens, powder of mans bones calcined, fresh made Treacle, Juice of pomegranates, of Acacia, old conserve of Red Roses. The *stronger* sort of these medicaments are, Balauftians, myrtles, Acacia, Hypocistis, Sumach, pomegranate, medlar, &c.

IV. *Anastomaticks*, are medicaments which open the mouths of the Vessels, and are therefore by the Greeks so named, because they ought to penetrate into the inner parts of the body, and to attenuate gross humors; and therefore they ought to be both hot in the second degree, and endued with a more thick substance than ordinary, that they may retain heat the longer. Bitter things are most convenient.

Point VII. Of Attenuating, Aperient, and incrassating Medicaments.

I. *Attenuating medicaments*, are such as dissolve and make thin, thick, clammy, and glievish humors, so that either they vanish of their own accord, or are easily dissipated by the operation of Drawers. They must be of a thin substance, hot in the third degree; which is nevertheless, not alwaies necessary. For the juice of Lemmons, Vinegar, Oxymel, do attenuate, and cut, though they are cold. See the Catalogue among Operatives.

II. *Apperitive medicaments*, do open inward Obstructions of the Body. They ought to be of a thin substance; and therefore are reckoned among such things as appear hot and biting to the smell and tast, which have a nitrous, salt, bitter, and acid tast: but seeing there is variety both of the matter obstructing, and the bodies obstructed, sometimes such as are of thin parts, sometimes such as are not so qualified, are given. Now they are these; Among *Simples*, of *Roots*, the five opening Roots, so called, viz. (of Smallage, Fennel, Asparagus, parslly, and Holm) of *Grass*, Cichory, Eryngos, Gentian, Fern, madder, Rhaponticum, Asarum, Cappars, Tamarisk, Ash. *Herbs*, Fumitory, Wormwood, Agrimony, maiden-hair, Liver-wort, ceterach, chamepitys, chamedrys, Dodder, Horehound, calamint, penyroyal, scurvy-grafs, Brooklime, Water-crelles, Hops, white Horehound, Wormwood. *Seeds* of Annis, Fennel, Ameos, Agnus castus, Vetches, Lu-

pires. *Fruits*, bitter Almonds, Cappars, Peach-kernels, Apricock-kernels. *Spices*, Cinamon, Cubebs. *Gums and juices*, Ammoniacum, Vinegar, Juice of Lemmon. Of *compounds* are, *waters* of the foresaid simples; Oximel simple, Scyllitick, Syrupe of opening roots, *Trochisks* of Rubarb, Wormwood, Egrimony, Lacca-gum. Tattar Vitriolated, Creame thereof, Christals and Tincture of Tattar. Tincture of steele, powder, aperient crocus and pills thereof.

III. *Incrassaters or thickeners*, do make the thin and liquid juices more thick. They are cold or temperate without actimonic, and of thick substance; such as, Porflane, Sorrel, Poppy, Rice, Lentils, Quinces, Peates, Starch, Chalybeate milk, and juice of Pomegranates.

Point, VIII. Of Obstruative, And Deobstruative Medicaments.

I. *Emplastick or obstruative medicaments* are such as by their substance, do daub, stop and clam up the passages of the Body, and being smeared thereon, stick fast thereto being of a Consistence, either dry and earthy, but without any biting quality, or ful of watry and aerie humor. They are. I. Among *simples*. 1. *Roots*; Of Marshmallows, White-Lillies; *Seeds*, Wheate, Starch, Pine-kernels steeped in water, Fenugreek, al Mucilages. *Fruits*, Figs, Raisons. *Gums*, Arabick, Tragant, Dragons blood. *Earths*; Terra sigillata, Bole-Armeniack. *Juices*; Alum. *Stones*, Lapis Calaminaris, Blood-stone, Potters-clay. *Minerals*, litteridge of Gold and Silver, Lead, Ore of brafs, Pompholyx; Cerus. *Animals*, Mumia, fresh fats, marrowes, fresh butter, Cheese, whites of Eggs, Wax. II. *Compounds* of these; Unguentum Album, Nutritum.

II. *Deobstrueters*, do scoure away clammy glutinous humors, which stick unto the body; they are hot or cold, salt, bitter, nitrous. Such are. I. Of *Simples*. 1. *Roots* of birthwort, Orice, Gentian, Solomons seale, Tamarisk. *Leaves*; of Smallage, Wormwood, Centorie, Southernwood, Hypop, Water-crelles, Horehound, Agrimony, Ground-Oake, Tansey, Harts-tongue, Pimpernel. *Seeds*; of Lime, Fenugreek, barley, Orobus, Lupines, and their meales. *Juices*; Aloes and Sugar. *Gums*; myrrh. *Rosins*; Turpentine. *Minerals*; verdigrise, Vitriol. *Animals*; whey, beafts-Gal.

III. *Extergents*;

III. *Extergents*; differ only gradually. Of this kind are Oxymel, Alum water, Unguentum Ægyptiacum, &c.

Point, VIII. Of *Anodynes*, and *Narcoticks*.

Anodyne Medicaments are those which by their moderate heat, and soft substance, do assuage paine, by opening the pores of the body, and entering therein by the tenuity of their substance; and discuss the cause thereof by insensible transpiration. Such are. I. Among *Simples*, the *Roots*; of Marsh-mallows, Lillies. *Leaves*; of Mallows, Elder. *Flowers*; of Chamemel, Melilote, Safron. *Seeds*, of Lime, Fenugreek. *Animals*; Fats, of Hogs, Hens, Geese, Calves, Man-fat. *Marrow*; of Oxen, Calves. *Milke*, butter. II. Of *Compounds*, oiles; of white lillies, Chamemel, Violets, sweet almonds, linseed, worms, and (which is most commended) sweet oile of Roses, of a middle age.

II. *Narcoticks* stupifie the part, so that it cannot feel that which pains. This they do, partly by their coldness, partly by an hidden Quality. Of this kind are. I. *Simples*, the *Roots* of Mandrake; *Leaves* of Henbane, mandrake. *Seeds*, of white-poppey. *Juyces*, Opium. II. *Compounds*: oiles, of Mandrake Unguentum popeleon, laudanum ossiatum, Fernelius his narcotick lozenges. Spirit of Darnel, &c.

Article. 2. Of *Medicaments* which cause motion.

Medicines which cause motion are either *Drawers*, *Repellers*, or *Astringents*.

I. *Drawers*, are such as draw from the deepe parts of the Body into the surface thereof, not only thin and wheyish humors, but also such as are thick, and fast rooted in the Parts of the Body. They are either hot in the second degree, which draw moderately; or in the third degree, which draw strongly; or in the fourth degree, which swell the skin. Such are. I. Of *Simple Roots*, of the two Birch-worts, Anemomy, bindweed, Tragon, Gentian, Pellitory, Crowfoot, Daffodilly, Geads, Cuckow pindle, Thapsia, Garlick, onions. *Leaves*: of Wild-Cresses, Calamint, Purple Anagallis, Nex, Thlaspi, Ivie. *Seeds*, of Nettle, Navew, Water-creesses. *Gums*, Euphorbium, Ammoniacum, Galbanum, Sagapenum. *Rosins*; Pitch, Vulgar Rosin.

Animals; Dung of Pigeons, Hens, Cantharides. II. Of *Compounds*, Emplastrum Oxycroceum.

II. I call them *repellers*, which do either by their cold watriness prohibit the influx of humors into any part; or drive back such as are already flowed in, but are not fastened. They are. 1. Among *Simples*; the *Roots*, of Plantane. *Barks*; of Mandrake roots; *Leaves*; of Housleek, Purslane, Duck-weed, Endive, Lettuce, Nightshade, Water-thistle, Venus navil, Lentisk, Sumach, Henbane. *Flowers*; of red roses. *Seeds*; of Fleawort Plantane. Of *compounds*; Waters of Roses, Nightshade, Plantane.

III. *Astringents* are such as consist of a thick and earthy substance, stop the passages of the part, force out the thinner particles of the humor, and consequently do also repel. They are either Cold or Hot. Cold are, among *Simples*, the *Roots*; of Sloes, Cinquefoile, bistort, tormentil, great Comfrey. *Barks*; of myrobalans, Pomegranates, Frankincense tree, Barbery-tree. *Leaves*; of Horse-taile, smaldaisie, mouse-eare, Knot-grass, Shepards pouch. *Flowers*: of Roses balauftians. *Seeds* of Sorrel, pouslane, myrtill, White-poppy. *Fruits*, Services, Quinces, meddlers, myrtle berries, unripe mulberries. *Gums*, mastich, Dragons-blood. *Earths*: Terra sigillata, bolus Armenia. Of *compounds*: are Waters of Roses, of Plantane, of Privet flowers. *Syrups*; of red-roses, of Quinces. *Conserves*, of dried-roses, Quinces, New made treacle. *Juice* of Pomegranates, trefoile, Crabs, lower Grapes. *Pouders*: Diacorallium, Crocus martis, Burnt harts horne, mans-bones, Spodium, Ambar. *Pills*: de Cynoglossa. Hot astringents are, Cyperus, Wormwood, Calamus Aromaticus, Schananth, aloe, Thus, Myrrh, Spike, Barks of Frankincense-tree, Cypress-nuts, Alum.

Article, 3. Of *Medicaments* which generate somewhat.

Point, 1. Of *Ripeners*, *Quittor-breeders*, and *Flesh restorers*.

Medicaments which breed somewhat are in a six-fold difference. 1. *Ripeners* or *Quittor-breeders*. 2. *Flesh-breeders*. 3. *Glewers*. 4. *Scarbringers*. 5. *Milke-breeders*. 6. *Seed-encreasers*.

I. *Ripeners*, and *Quittor-breeders*, are such by whose helpe, the Natural Heat turnes

turnes corrupt blood into Quittor. They are moderately hot and moist, and like in temperament to the part whereunto they are applied. Also by shutting the pores, they keep in the beate. They are in a twofold difference. Some are meerly of a temperate beate, and clammy which we use in hot tumors, such as are, Mucilages of Lin-seed, Fenugreek, Mal-lowes, Marshmallowes, Water and oile, Wheate-meale, Milke, Crum of wheaten breade, Hogs-greate, fresh-butter, Unguentum Dialthea. Others are hot, which we use in cold tumors and parts; such as the Gums, Ammoniacum, Edellium, Galbanum, Rosins; Turpentine, Pitch, Vulgar rosins. Teares of Firr, Birch and Pine-tree. Oiles of Chamomel, White-Lillies. Ointments; of Agrippa, Basilicon, Majus and minus. Emplasters; diachylon simple and cum gummi. II. Sarcoticks or Flesh-breeders are such things as assist nature to change blood into flesh, both by preserving the Heate of the Part, and removing such Excrements as binder the work. They do moderately heat and drie; also they cleanse away filth, without any biting, or astringtion. They are of a Three fold Rank, In the first ranke or degree, are placed meale of Barly, of Fenugreek, of beanes; Franckincense, Manna, thuris. In the Second, Turpentine rosin, Larch-rosin, Fir-rosin, Clarified Honey, hony of Roses: Aloes, meale of Lupines, orobus, and Pompholyx. In the third degree, meale of Orobus, raw honey, birch-wort root, orice roote, myrrh, Vitriol.

Point 2. Of Sodderers, and Scar-bringers.

I. Glewing, or soddering Medicaments, are such as bring together the gaping lips of fresh wounds, and hinder anything from flowing into, or growing between them. Of which kind are among Simples, the Roots of Tormentil, Cinque-foile, Bistort. Leaves; of Mouse-ear, plantaine, St. Johns-wort, Bugula, Sanicle, Pyrola, Wal-Sage, Rupture-wort, Willow, Vervaine. Gums; Myrrh, Frankincense, Sarcocolla. Juices thicken'd; Aloes, Hypocistis. Rosins; Pitch, Turpentine. Of compounds; Oyntment of Lituridge, of Betony.

II. Scarbringers, are Medicaments which consume both that which flowes to, and that humor which is already in the flesh, that the flesh may be changed into the similitude of Skin. Thick are of thick substance, vehement-

ly drying, astringent and contracting. The cheife are, Roots, of tormentil, Cinquefoil. Herbes; Comity, Thorough-waxe, Horsetaile, Plantane. Flowers; balauftians. Juices concrete, Coral, Aloes, Juice of diagon. Earths; Alum, Eole Aimentack. Metalline substances, Lead, C. d. n. i. s. Litteridge, Brass-burnt, and washed, Antimony.

III. Hitherto belong Vulnerary Medicaments, of which vulnerary potions are made. And they are, the roots; of greate Comity, Bistort, Tormentil. Leaves; of Lady-mantle, Shephards-pouch, Golden-rod, Eals-minum, Vervaine, Fluellin, St. Johns-wort, Millefoil, Sanicle, Hort-raile. Elme, Plantaine, Betony, Cyprets, Mouse-ear. Flowers; of red-roses, St. Johns-wort, Balauftians. Fruits; Cyprets nuts. Gums, Teares; Frankincense, Aloe, Mastich, Teares of the firr, Turpentine, pine and larch rosins, Stone-pitch, liquor of Elme-leaves, Gum Elemi, Gum of Juniper, of Ivie, of Tragant, Tacamahaca, caranna, Sarcocolla, Dragons-Blood &c.

Point, III. Of Milke and Seed-breeders.

I. Milk-breeding Medicaments in this place are such, as both helpe to make good blood, and moderately attenuate the same and bring it to the Duggs, such as are these following: green Fenel, the seed thereof, Green Dil, Smalladge, powder of Christal, Decoction of Colewort, Butter taken with milke and fenel, Smyrnum, Polium, Rocket, &c.

II. Seed-breeding Medicaments, both those which carrie matter to the spermatick vessels, and they which provoke to the expulsion of seed whether they fill it with wind, or ad a spir or provocation thereto. The cheif are these, Roots; of Eryngos, Satyrion, Ginger. Seeds; of Rocket, Mustard, Nettles, Pepper. Fruits Pine-kernels, Pistachios, Hazel nuts, the Pap of the Indian nut. Parts of Animals; Reins of the Scinci, Braines of Sparrowes, Stags-Pizzle, Cocks-stones.

Article, IV. Of corrupting Medicaments.

Corruptive Medicaments are. 1. Rubifiers. 2. Vesicatories. 3. Such as induce a Crust. 4. Burners. 5. Corrosives. 6. Putrefiers. 7. Psilothra, hair-grubbers, y 8. Milke-

8. *Milke-wafers.* 9. *Seed-confounders.*

I. *Rubifiers* make the skin red, and draw Humors from the inner parts of the Body into the skin, such as are the Roots of Thapsia, Seeds of Water-creffes, Nettles, Mustard.

II. *Vesicatories* raise bladders, and by their Ardency draw forth humors. The cheife are, Roots, of Bind-weed, Pellicory, Squil, Garlick, Thapsia, Herbs; Doves-foot, Flammula, Crow-foot. Seed; Of water creffes, Mustard. Also, Euphorbium, Leaven, Soap, Pidgeons-dung, Cantharides.

III. *Crust-Creators*, do not only raise up the scarfe-skin, but also burne the skin it self, howbeit their operation goes no further.

IV. *Burners or Causticks*, bring a thicker crust than the former, and often work upon the flesh beneath, the cheife are: White Hellebore, ashes of vine-dregs, ashes of the fig-tree, Ashe, and favine tree. Brals-burnt, flower of brals, quick-lime, Vitriol, orpment, Arsenick, mercury sublimate, Salt made of Lie of which soap is made,

V. *Corrodors*, take away proude flesh, and do by little and little, melt the upper surface thereof. The milder are, Roots of white vine, black-hellebore. Ashes of the Oake, fig-tree, Conchylum. Aloe, Alum; burnt lead, Antimony calcined. The stronger are; Quick-lime, Flower of Brals, Brals-burnt, Vitriol calcined, Quick-silver precipitate, Sublimate, Oyl of vitriol, sulphur &c.

VI. *Putrifiers*, do melt hard flesh. Such are Arsenick, Orpment, Chryfocolla, dryopteris, Pityocampe, aconitum; Sandarach.

VII. *Hair-grubbers*, are such medicines as pluck up by the Roots the Haires of the Body, so as to make the part where they are applied, bald and smooth; such as are, strong lie, quick-lime, ants-egr, sandarach arlenick, orpment &c.

VIII. *Milke-wafers*, do either incrassate and thicken the blood, by overcooleing it, or they dry up and digest the same, or finally they do by their whole substance destroy the Milke. Such are, Mints, Sage, Calamint, Coriander, Henbane, Oyl of unripe Olives, Vinigar, Camphire.

IX. *Seed-confounders*, do either coole, thicken, or ditcuss the same, or consume it by an hidden property. Such are: Mint, Rue, Agnus Castus, Dil, Seeds of Hempe, Fleawort. Lettuce, Purslaine, Champhire &c.

Article, V.

Article. V. Of Medicaments which take somewhat away.

Point. 1. Of Purgeing Medicaments.

Medicaments which take something from the Body are: 1. Purgers. 2. Vomitors. 3. Diureticks. 4. Sweaters. 5. Transpirers. 6. Braine-purgers. 7. Expectorators.

Purgers are such Medicaments, as drive out by stool, such humors as preternaturally nestle themselves in mans body. And they are 1. Cholera-purgers. 2. Phlegm-purgers. 3. Melancholly-purgers. 4. Water-purgers. 5. Purgers of all humors together.

I. *Cholera-purgers*, are medicaments which drive out preternatural cholera. And they are 1. Mild; as among simples, Cassia fistularis, which because it is hurtful to a moist slippery belly and to the stomach, and is windy, it is corrected with a graine or two of peper, aniseed or Cinamon, and is given in a bole, commonly from sixe drams to two ounces; to children two drams may be given. Tamarins or Indian dates, convenient for hot Constitutions; which because of their coldness, are corrected with Cinnamon and Mace, and by reason of their lazyness, they are quickned with whey of Goates-milk. They are given in Pulpe, from an ounce to two ounces or three, and in the Infusion to five ounces. Manna Calabrina, which is safe in all cases, excepting burning fevers; tis quickned, with syrup of Roses solutive. It is taken in Prune-broath, or the Broath of a Cock or Hen, to the Quantity of three or four ounces. Aloe Soccotrina, which taken in too greata Quantity inflames the Liver: because it opens the orifices of the Veines tis not safe for women with child. Nor is it good for hot and dry natures. Tis nourished or impregnated with juice of damaske Roses. Tis corrected with mastich because of its Acrimonie. It is given from halfe a dram to a dram & more: see thereof Solenander, sect. 3. Countel, 29. *Rhubarb*, the soule of the Liver, which must not be given alone, because it is apt to fume, and easily exhales, but with endive water, or syrup of Roses solutive; it must not be given to such as are troubled with the strangury, nor those that are subject to the Hemorrhoids. Tis corrected with Cinnamon, Spicknard, Schenanth. Tis given from one dram to two drams. *Damaske roses*, musked, fragrant, bitter and detergent. Their Virtue is encreased, if two ounces

ounces of whey be mixed with an ounce of their juyce, a little spike and Cinnamon being added. *Violets*, which are of like vertue with roses, exceeding good in diseases of the Brest and Head-ache. *Terpentine*, especially pit-tick, which with powder of Lycoris and Sugar, is made into Boles, and given to cleanse the kidneys. Lemnius commends it in a portion. Among compounds are, Syrup of roses solutive, hurtful for women with child, because it opens the veines of the wombe, from two ounces to four. Rose-leaves must be gathered while the morning dew is upon them. Their strength lasts hardly beyond six monthes. Syrup of the flowers of Acacia, de Manna Laxativus, Horstius his syrups of tamarinds with senna. *Pilule Angelicæ*, *Benedicta Bejeri*. *Hiera mellita*, from a dram to four drams. II. The stronger are, among simples, *Asarum*, which being long boiled loses its strength; very well beaten, it moves vomit. It is given with whey, wine and honey sod together. *Scammonie*, which must never be given to such as are inclined to vomit, feverish, weak persons, in the summer, in broaths, alone, because its acrimonie disturbs the body, inflames the spirits, hurts the principal parts. 'Tis corrected with juice of Quinces, mucilage of Gum Tragacanth, spirit of sulphur or vitriol. Being corrected tis called *Diagrydium*. 'Tis given from five graines to fifteen. Of compounds are *Pilule Rhudji* to a scruple; *Aureæ*, which are most in use. *Extract of Scammonie*. The Magisterie thereof, which see in *Mysicibus* and *Grulingius*.

II. *Pblegme-purging Medicaments* are such as draw excrementitious flegm out of the Body. And they are. I. More gentle among simples, *Myrobalans*, *Chebulan*, and *Emblican*; which are to be avoided in obstructions of the Gutts or Bowels; they are steeped in Chick broath to an ounce, or boiled therein, with muscadine. *Cnicus* or *Carthamus seeds*, which purge water, and crude flegme, and raise wind; because they provoke vomit, they are corrected with Anise, Ginger and Mastich. *Mechoacan*, which is of subtile parts mingled with Earthy. Of exquisite tertian Agues, it makes double ones. It works most happily in the forme of a powder, or if it be steeped a night, in wine, or broath, and drunke in the Morning. Among compounds are, spices of *Hiera picra* simple. Lozenges of *Mechoacan*, described by Horstius. II. *Vebement Flegme-purgers* are, among simples, *Agarick*, which by a peculiar

Faculty frees the Lungs from clammy thick and putrid humors. 'Tis safer in the Infusion, than in the substance. *Jalap*, which is most proper, where choler is mixt with flegme. The Dose is from a scruple to two scruples, with cream of Tartar. It has in it somewhat of Acrimony. *Turpetungutamic* and white, which because it hurts the Stomach & provokes Vomit, is corrected with Ginger, Pepper and Cinnamon. By its dryness it brings the bodies of those that over use it, into a Consumption. It works best in a decoction. *Coliquitida*, which purges thick and clammy Humors from the remote parts; and because it sticks to the fibres of the stomach, it provokes vomiting. It must not be corrected by astringents, for they detain it, being a violent medicine, too long in the Body. *Hermodactyls*, which purge thick humors from the Joynts, and are corrected by attenuaters. *Euphorbium*, which is hot and dry, in the fourth degree: because it inflames the Jaws and Throat, vexes the Stomach and Liver, raises cold sweat, 'tis corrected with cordials and Stomach strengtheners, but best of al with Oyl of Roses. It must not be used inwardly before it be a year old. *Sagapenum* which brings out clammy and thick Humors. Of compounds are, *Pils of Sagapena* of Horstius and *Camillas*. Syrup of *Coloquintida*, and Lozenges of *Jalap*, &c.

III. *Melancholy purgers*, are such as drive excrementitious melancholy out of the Body. And they are, I. Gentle. Among simples, *Indian Myrobalans*, which are principally given in quartan Agues, and purge adust choler. *Epthimum*, which by a peculiar property above all other medicines, purges this Humor, howbeit but weakly. 'Tis more safely used in the Winter than the Summer. That of Crete, is the best. *Polypodie* of the Oak, which because it binds when it is old, must be used fresh and new gathered. That which grows on over old Oaks, by its overmuch Humidity, subverts the stomach. *Sena*, which is used to draw humors out of the Mesentery, in the broth of Ptunes, Reilons, and in Whey, &c. its cods, if gathered when full of juyce before they are fully ripe, wil work as the leaves doe; but withering upon the stalk, they lose all their vertue. Among Compounds are, Syrup of polypody, and Epthimum. *Pils of Fumitory*. Powder of *Sena* of Montagnana, &c. II. The stronger sort are, among simples, *Lapis Armentus*, which must be long washed in cordial waters, til no more foulness appear. *Lapis lazuli*, which must

be used after the same manner. *Black Hellebore*, which is least dangerous, in the decoction. 'Tis best corrected with the flegm of *Vitriol*. An excellent way and Elegant to give it, is, to stick an apple with cloves and black Hellebore Roots, and roast it in the Embers. Among *Compounds* are, *Extract* of black Hellebore, and *Syrup* of the same, in *Heurnius*.

IV. *Water-purgers* are Medicaments which drive waters out of Mans body. I. The more gentle are, among simples, *Soldanella* or *Sea-Colewort*, which extremely delights in the company of *Rhubarb*, and loses not its Vertue by boyling. 2. *Germane Orice*, which provokes the Courtes, and loses its force, by boiling. The juyce of the Root is put in an *Egghel* with the yolk of the Egg, and so they are boil'd together or roasted til the Egg be soft boyled, so as it may be supt. Among *Compounds* are, *Conserve* of Peach Flowers, *Powder* of *Soldanella* of *Fowencinus*, &c. II. The more vehement sort are, *Elaeterium*, which slips even without the Veins and draws water away. It may be given to strong persons to the quantity of ten grains, if well corrected [understand in German Bodies and tough english plough-men or Saddleors] 'tis corrected with *Cinamon*, *Spike*, &c. *Cambogia*, which because it makes the Stomach a little sick, it is corrected with *Spirit* of Salt and *Mace*. The use thereof is hurtful to choleric natures. See thereof *Reudenius* and *Lotichius*. *Hedge-Hyssop*, which works upwards & downwards. It is dried and steeped in milk, & then dried again, so as that it may be reduced to powder. *Esula*, whose Milk, Seed, Leaves are very strong, but the Root more mild. It must not be used til a month after it has been gathered. That is best, which is five or six months old. The Bark of the Root is chiefly in use. 'Tis corrected by Infusing three daies in *Vineger*. Among *Compounds* are, the *Magistery* of *Cambogia*, *Pilule Freytagii*, *Oyl* of *Elder-berry* Stones.

V. *Purgers of all Humors together*, which are called *Catholica* and *Panchymagoga*; are those which follow: of simples, *Sena*, *Hellebore*, *Antimony*, &c. Of the compounds, *Panchymagogum Crollii*, *Vegitabile*, *Paracelsi*, *Extractum Catholicum majus & minus*. *Electuarium Diacatholicon*, &c.

Point 2. Of *Vomitories* and *Diureticks*.

Vomitories are such Medicaments as cast

forth bad humors, by the Mouth.

Which they do, either because they naturally tend upwards; or because they swim upon the Stomach and burthen the same; or because they loosen the upper Orifice of the Stomach. Of this sort are, I. The more gentle, simple water, Luke-warm water, Barley water, fat broaths, simple Oyl with water, Butter, Hydromel. Root of Orach, Garden Cowcomber, Melons, Daffodillies, Asarum. Flowers of Peaches, of which conserve is made. Seeds of Rocket, Orach. The middle Rind of a Walnut Tree, when it is fullest of juyce, especially the Cats-tails thereof. *Electuary* of Asarum of *Fernelius*. II. The stronger sort are, white Hellebore. The Vomitory of *Catradinus*, which is given from three drops to ten drops. Gilla of *Paracelsus*. White vitriol vomitory. Sala his salt of vitriol. Flores *Mercurii argentei*. *Mercurius Vitæ*, *Mercurius dulcis*, *Manna Mercurii*, *Aquila*. Flowers of *Antimony*, Oyl and *Electuary* of *Antimony*, and *Crocus Metallorum*. *Aqua benedicta* of *Quercetanus*, *Pissine* water, *Platerus* his Wine, *Heurneus* his Helleborate wine, *Aqua Benedicta Rutlandi*.

II. *Diureticks*, are medicaments which provoke Urine, and by that means evacuate withal the morbisick matter.

They are twofold: I. Properly so called, which easily penetrate into the Veins, and therein melt the Humors with their heat, and they are Roots of Parsly, Smallage, Eringos, Rucis, Asparagus, Pimpernel. Herbs, Asarum, Liver-wort, Chervil, Scordium. Seeds, of Gromwel, Chervil, Saxifrage. Fruits, bitter Almonds, Peach Kernels, &c. among chymical preparations, is spirit of Salt, and whatever things are compounded of Tartar. II. Improperly so called, and they either hot, as *Maiden-hair*, *Terpentine*, *Ambona* Root, of which see *Zacutus*. Or moist and which lenifie the passages, as *Mallow-seeds*, *Marshmallow*, *Lycorice*. Or cold, as *Strawberries*, *Barly*, the four cool seeds, *Bath-waters*, *Whey* of Milk, *Juice* of Lemons. Also *Peach-Kernel* water with *Muscadine* is commended. The whitest flints heated red hot and quenched in rich Wine, Oyl of Wax from five drops to six. Salt of Amber, an half dram in weight. Water of Hips, Oyl of Juniper Berries, &c.

Point 3. Of *Hydroticks* and *Diaphoreticks*.

Hydroticks are, such medicaments as drive out

Chap. 6. Of Medicines denominated from the parts of the Body. 29

out the morbifick matter by the habit of the body, in a sensible manner, viz. by sweat.

They are otherwise termed Sudorificks. The act by reason of their heat and thinness or subtilty of parts, turning the peccant matter into a vapor; and they which are cold, do act by a propriety of their Substance. Now they are, I. *Simplex*, as Angelica, Pimpinella, Fumitory, Tormentil, Zedoary, China, Sarsaparilla, Saffras, Lignum Guajacum, Cornu Cervi, Bezoar stone, oriental and occidental.

2. Or *Compound*, as, Orange-Flower Water and Treacle water. Spirit of terra sigilata, Tartar, Carduus, de tribus, Treacle, Michridate. Salt of Scabious, Carduus, Wormwood, Ash. Among chymical preparations, there is Aurum Diaphoreticum, Flowers of Antimony fixed, Turpetum minerale diaphoreticum, Sulfur Auratum, Bezoardicum joviale, &c.

II. *Transpirers properly termed Diaphoreticks*, are such medicaments as drive the morbifick matter through the pores of the Skin, invisibly. They are al hot, turn the Matter in a vaporous steam, and open the bodies pores. The chief are, Mellilote, Fenugreek, Rue, Marjerom. Of *Kind* to these, are *Wind-dissolvers*, such as are the *Roots* of the smaller Galangal. *Leaves* of Bayes, Dictamus Penyroial, Origanum, Rue, Marjerom. *Seeds* of Anis, Fenel, Carway, Cumin, Carrot. *Fruits*, Bay-berries, Juniper berries. *Barks* of Citrons, Oranges, &c.

Point 4. Of Medicaments which purge the Brain.

Brain-purgers are such as void the morbifick matter nestling in the Brain, by the *Nostrils* or *Pallate*. The former are called *Erbina* and *Parmica*; the latter *Apoplegmatizantia*.

I. *Erbina*, do by their nitrous quality melt and dissolve the flegm which hangs about the Coats of the Brain, and draw it out into the *Nostrils*, without any disturbance to the Brain it self. The chief are, the *Roots* of Orice, Bindweed. *Leaves* of Bete, purple Anagallis, Marjerom, Sage, Betony, Ivy. *Juyces*, Elaferium, which is the strongest, and Juyce of Pulfatilla. Also they may be made out of the foresaid roots and Leaves.

II. *Parmica*, or *Sneezers*, do by their Acrimony so provoke the Expulsive Faculty of the Brain, as to cause it to cast them out,

and with them such excrements as stick in the Brain it self. The chief are, the *Roots* of Ginger, Pellitory, Orice white Hellebore. *Leaves*, of sneezewort, Tobacco *Seeds*, Peper, Mustard, Staphisacre, Nigella, Gums, Euphorbium, whose smel alone is sufficient.

III. *Apoplegmatizers*, Being either chewed, or gargled, or smeared upon the Palate, bring down the Excrements from the Braine into the Palate and mouth. They are made of roots, of Ginger, Pellitory of spaine. *Seeds*, of peper, watercresses, Mustard, Staphisacre; *Gum*; mastick.

Point, V. Of Expectorators.

Expectorating Medicaments are those which evacuate humors contained in the chest and Lungs.

They are made of *Roots* of Alecampane, Birthwort, Angelica, Orice, Cuckow-pindle, Squills, Lycorice. Of the *Leaves* of Hyssop, Maiden-haire, Scabious, Horehound, Colts foot. *Seeds* of Cotton, Watercresses, Erythimum, Sefeli, Nettles. *Fruits*, reisons, jujbes, sebestens, Almonds, Figs, Pistachios, Hither also appertaines Sperma, Ceri. See more of these in the Chest-medicines.

Chap. 6. Of Medicaments denominated from the parts of the Body.

Article. 1. Of Cephalick Medicaments.

Point. 1. Of Cephalick Medicaments, which are hot.

And so we have done with our Muster of such Medicaments, as are denominated from their faculties: those follow, which receive their denomination from the parts of the Body, with which they have an Agreement, by reason of their whol substance and specificall properties.

Now they are these, *Cephalicks*, *Ophthalmicks*, *Thoracicks*, *Cardiacks*, *Stomachicks*, *Hepaticks*, *Spleneticks*, *Nephriticks*, and *Uterine Medicaments*. And al these are either *Hot* or *Cold*, *Internal* or *External*.

I. *Internal beating Cephalicks* are, 1. *Of Simplex*, *Roots* of Pronie, Caryophyllata, Birthwort, Masterwort, Calamus Aromaticus. *Leaves*; of Primrose, Betony, Rosemary, Marjerom, Centory, Sage. *Flowers*; of the Linden-tree, Stachados of Arabia, Lilly-

Lilly-convally, Peony, Primrose, Betony. *Seeds*, of Amomum, Peonie, Mountaine withie, Coriander. *Fruits*; Kermes Berries, Anacardia, Bay and Juniper berries. *Spices*, Cubebs, Nutmeg, Cardamom, Cloves. *Woods*, Miseltoe of the Oake, and of the Hasel. *Tears*; Frankincense, Storax; *Sea-commodities*, Amber, Ambergreife. *From Animals*; Mosk, Castoreum. II Of compounds: *Water*, of black cherries, of Lilly-convally, Peony, Linden, Gilloflower, Primrose, Orange-flowers, Treacle-water. *Tinctures*, Elixir proprietatis, of Peony, of Sassafras wood. *Distilled oils*. Of Rosemary, Marjerom, Sage, Rue, Ambar, Spike, &c. *Syrups*, of stechados, Betony, Gilloflowers, Peony. *Conserve*s, of Betony, Sage, Rosemary flowers, Lilly-convally, Centorie, Stechados. *Preserves*; Nutmegs preserved, Indian Nut preserved, Preserved wallnuts. *Electuaries*, Confectio Alkermes, Treacle, Michridate, Diacastoreum. *Spices* of Diambra, Dianthos, Diamofchum dulce, Diacastoreum.

II. *External beating Cephalicks* are. I. Among *Simples*, al those wel nere, before related. Leaves of Rue, Running betony, upright vervaine, are exceedingly commended. II. Among *compounds* are, *Oyls*, of Sassafras wood, Oyle of Rue, Nard Oyle, Oyle of Baies, of Castorem. *Balsoms*, of Roses, of Rosemary, of Nutmeg, Marjerom, Sage, Ambar. *Emplasters*, de Betonica, de Mucilagnibus, de Baccis Laury.

Point. 2. Of cooling Cephalick Medicaments.

Cephalick cooling Medicaments are likewise internal, or external.

I. *Internal* are, I. Of *Simples*, the *Roots*, of Mandrake, the *Leaves* of Lettuce, Pettslane, Plantane, Night-shade, Water-lillies, Henbane. *Flowers*, of Roses, white poppie, Red-poppie, purple violets, water-lillies. *Seeds*, four greater and smaller coole-seeds. *Fruits*, of Gourd, Cucumbers. *Woods*, of Sanders. II. Of *Compounds*. *Waters* of Roses, Violets, Lettuce, Water-lilly, Nightshade. *Juices*; Opium, Vinegar of Roses. *Syrups*, of white poppie, red poppie, Roses, Water-lillies. *Conserve*s, of Lettuce, and of the flowers aforesaid. *Electuaries*, Diacodion simplex and compositum, Diaolibanum opiatum, Ladanum opiatum. *Spices*, Diatrion fantalon de gemis

frigidum, Diacorallium.

II. *External* are, I. Of *Simples*; *Leaves* of Willow, Vine, Venus Navil, Mandrake. The rest may be taken from the foregoing. II. Of *compounds*; *Waters*, of Henbane, Lettuce, Water-lillies, Plantane, Nightshade, Elders, Roses. *Juices*; of the Birch-tree, House-leeke, &c. *Oyles*, of Poppeyes, Violets, Water-lillies, Lettuce-seed, Mandrakes, Frogs. *Ointments* of Roses, Alabaster, Album camphoratum, Refrigerans Galeni, Populeum.

Article, 2. Of Ophthamlick Medicaments.

Ophthamlick or Eye-medicaments, are either Heating or Cooling; and they are both external and internal.

I. *Internal* Heating Eye-medicaments are. I. Of *Simples*, *Roots* of valerian, Fenel, Celondine, Navew, Rapes. *Leaves* of the greater Celondine, Fumitory, Eyebright, Pimpernel, Rosemary. *Flowers*; of Eyebright, Celondine, Marygolds. *Seeds*, of Anus, Rue, Siler montanus, Turnips. *Spices*, Safron, Lignum-aloes. II. Of *Compounds*, *Waters* of Vervaine, Celondine the greater, Fenel, Vervaine, Rue, Centaury the les. *Syrups*, of betony, Eye-bright. *Electuaries*, Treacle, Michridate; *Conserve*s, of Eye-bright, Rosemary-flowers, Betony, Sage, Gillowflowers, *Extract*, of Lignum-Aloes.

II. *External* are, I. Of *Simples*, the *Roots* of Vervaine, Valerian. The *Leaves*, of which mention has been often made. *Flowers* of Hypericon, Melilore, consolida regalis. *Seeds*, of Clarie or Clear-Eie, Line, Fennugreek. II. Of *compounds*, Aqua Saccarata, Calendule, Mellis, Mullein, Elder, Bread. *Ointments*, Pomatum Dialthea.

III. *Internal coolers* are, I. Of *Simples*; *Roots*, of Cichory, Straberry, Rapes. *Leaves* of Strawberry, Cichory, Plantane. *Flowers* of white-roses, Violets, Water-lillies. *Seeds*, of Quinces, white-poppie. II. Of *compounds*, *Waters*, Of Strawberry, Pettslane, *Syrups*, *Conserve*s, *Species*, &c. See among the Cephalicks.

IV. *External coolers* are. I. Among *Simples*, the *Leaves* of Dandelion, Oak, &c. The *Flowers*, see above. *Seeds*, of Beanes, Fleawort, Quinces. *Fruits*, Pulpe of apples. A sweet apple with Sugar. *Earths*, Bole Armeniack, Terra Sigillata. *Metalline Substances*, Cexuls, Lituridge of Silver, Lapis

Lapis calaminaris, Saccharum Saturni, Spodium. II. Of compounds, waters of Elew-bottles, Beanes, Goose-grease, Strawberries. *Mucilages*, of fleawort seeds, Mallow and Marsh-mallow seeds &c.

Article, 3. Of Chest Medicaments.

Point, 1. Of Heating Brest Medicaments. Chest Medicaments are likewise, either Heaters or Coolers, internal or external.

Internal Heaters are, I. Of simples, Roots of Enula campane, Squil, round Birch wort, Colts-foot, Pimpinell, Scordium, Scabious, Dragon, Soap-wort. Leaves, of the five capillary Herbes, Horehound, Clamint, Scabious, Fluellen, Hedera terrestris, Colts-foot, Bortys, spotted Lungwort, Hyssop, Scordium, Two-penny grais. Flowers; of Scabious, spotted lungwort, Hyssop, colts foot spike, sea-grais. Seeds of wild rue, and Garden rue, of mountaine filer, sibili or Marselles, Chervil, Carduus, southern-wood. Fruits; fat-figgs, Dates, Tailons of the Sun, Indian Nur. Spices, Saffron Cassia Lignea, Cinnamon. Woods, of Sassafras, Guajacum, Orange peels. Earths & Gums, Bole-armeniack, Gum Ammoniac, Myrrh, Turpentine, Choise Frankincense. II. Of Compounds; Waters, of Hyssop, Horehound, Maidenbair, Fluellen, Ground Ivie, Scabious, Carduus, Orice, Calves-grais. Spirit, of Turpentine, Sulphur, Ground Ivy. Distilled Oiles, of Anise, Fennel, Mace, Sage, Creeping betony. Tinctures, Elixir proprietatis, Tinctura Sulfuris, Balsam of the tame, or with oile of fenel, or of sweet almonds. Extracts, of Saffron, Orice, Fluellen, Calamus Aromaticus, Ground Ivy. Decoctions, Decoctum pectorale, of dried Rapes, of an old Cock, of Lignum Guajacum. Sytups of Hyssop, of Horehound, of Maiden bair, of the Juice of Ivy, of Fleuellen, of Scabious, of Tobacco, Oxyssel simple, of Squils. Lohoch, of Colts-foot, of Fox-lungs, Lohoch sanum and Expertum, de Passulis, de althea. Conserves, of Bortys; Veronica, Pulmonaria maculosa, Hedera terrestris. Electuaries, Treacle, Mithridate. Speices diareos simple, Diatragacanthum frigidum, Diapenidium, Diathammarum. Fecula, Aronis. Flowers, of Brimstone, of Benzoin. Trochisks Bechici albi and nigri, Diareos.

II. External Heaters are, I. Of the simples, altho in a manner, which we formerly mustered. II. Of componnds; Oiles of Orice, Rue, Costus, Chein, Sweet almonds and bitter, Lillies, Line: Fatts, Goose-fat, which most penetrates, Deer-suet, Hens-grease. Mu-

cilages, of Lin-seed, Fenigreek, marshmal-lowes, with Satron. Ointments, of Marsh-mallowes, Pectoral ointment, and Unguentum Resumptivum.

Point, 2. Of cooling Chest-medicaments.

Cooling Chest medica ts, are internal or external.

I. The internal are. I. Of simples; Roots, of Garden Endive, Lamb-tongue-plantane, Polypody. Leaves, of portlane, Water-lillys, Colewort. Flowers; of Violets, mallowes, Water lillys, Buglois, Cichory, red poppy, roses. Seeds, the four great and smal cool-seeds, seeds of poppy mallowes, quinces, barley. Fruits; Hungarian & Spanish prunes, mulberries, Jujubes, tebestens, of water thistle, of sweet briar dried. Woods; red sanders, yellow sanders, white Sanders, Gum tragant, Arabick. Animals; River crabs, whey, Goates-milk. II. Of compounds; Waters, of a capon simple and compound, of veale, mallowes, Violets, water-lillies, red popie. Distilled oiles; of purple violets, sweet almonds. Emulsions, of white poppie, portlane, cold seeds. Decoctions, Decoctum pectorale in the London Dispensatory, of a Capon Sytups; of violets. Jujubees, Water-lillies, Gourds, red poppie, portlane, Dialthea Fernelij. Lohoch, de Psyllio, of reifins, of Cole stalkes, of portlane of marsh-mallowes. Electuaries, Diacodium of the Physicians of Augsburge, new Treacle. Conserves, of roses, violets with boile-Armeniack, Spanish Lettuce. Species, Diatragacanthi frigidi, Diapenidij. Roules, of diatragacanthum frigidum, Diamargaritum frigidum, diapenidium, sugar of roses in Lozenges.

II. External are, I. Of simples; the Leaves, before aleadged. Animals, fresh may butter not salted, barrowes grease. Mucilages of Fleawort seeds, of Quince seeds, of Fenigreek, of marsh-mallowes. Oiles, of violets, white lillies.

Article, 4. Of Cardiac or Heart-Medicines.

Point. 1. Of Heating Heart-Medicines.

Cardiac medicaments are such as are good for the Heart, whether given in, or outwardly applied; and they are also hot or cold.

Internal are. I. Of simples; Roots of Scordium, Doronitum, Angelica, Devils-bit, Master-wort, Vince-toxicum, Scorzonera, Dictamnus, Contrajerva, Tormentil. Leaves; of Baum, scordium, sage, Tormentil, carduus, Scabious,

Scabious Fluellen, Cardiaca, Goates, Rue, Garden and wild Cresses. *Flowers*, of the Gilloflower, rosemary, scabious, Centaury, Baum, Tormentil, Borrage, Buglofs. *Seeds* of Citrons, Aurenges, Carduus, Rue, Lovage, Navew. *Spices*, Nutmeg, Cassia lignea, Safron, Cloves. *Woods*, Lignum Aloes. *Gums*; myrth, Camphire, Benzoin, Mastich. *Sea-commodities*, Amber, Ambar-greife. *Earths and stones*. Bole-Armeniack, Terra sigillata Turcica and stringensis, Perles, Corals, fragments of the five precious stones. *Animals*, bezoar stone, Harts-horne, Rhinoceros Horn, Bone out of the Heart of a Stag.

II. *Of compounds, spirits* of Elder and juniper berries, baume, Elixir of Citrons with spirit of muscadine. *Distilled waters*, Of Carduus, baum, Citron-flowers, scabious, marigolds, scordium, Carbuncles, Cinnamon with Cordial flowers, *Bezoardica senerty*. *Distilled oyls*, of Cinnamon, Citron, baum, Ambar, Cloves, Nutmegs. *Tinctures*, of ambar, Elixir proprietatis. *Extracts*, of Angelica, Carduus, Citron peeles, Lignum aloes, Vince toxicum, Zedoary, Safron. *Essences*, the magistery of Cinnamon, Essence of Ambar, of Citrons, of Perles, of Vervaine. *Juyces*, of Citrons with their barks, of Pomgranates, Gelly of Harts horne, made with Vinegar of Harts horne and scordium. *Syrups* of Citron peeles, with and without musk and Ambar, Scordium, Carduus, Orenge, baum, Gilloflowers, Pomgranates, veronica, Borrage, Buglofs, Gallangal. *Conserve*, of Baum, Citron-flowers, Orenge, Gillowflowers, Marygolds, Borrage, Buglofs. *Preserves*, of Citron peeles, Orenge peeles, Indian Nut, Scorzonera roots, elecampane roots. *Electuaries*, Treacle, Mithridate, Confectio Alkermes, Dialcordium Fracastorij. *Species and powders*, of Diamargaritum calidum, Diamoschi, Diambra, Bezoardicus.

II. *External* are, I. *Of simples*, those which have been reckoned up before. 1. The compounds likewise are the same, viz. waters, juyces, distilled oiles. Of these Epithemes, bags, Fomentations and Linements are made.

Point, 2. *Of cooling Heart-medicaments.*

Cooling Hart-medicaments are either *Internal*, or *External*.

I. *The Internal* are, I. *Of simples*; Roots, of Dandelyon, Sorrel. *Leaves*; of Sorrel, wood-sorrel, Water-lillyes. *Flowers*, of violets, Cichory, Water-lillies. *Seeds*, the four cold seeds. *Fruits*, of Raspberry,

red Corants, Barberries, Citrons, Aurenges, Pomegranats, Sweet triar berries dried. *Woods*; the three Sanders. *Earths and medicines from Animals*, are those before mentioned. II. *Of compounds*; Waters, of Sorrel, Straw-berries, black Cherries, Quinces, Hart-Stones. *Juyces*, of Citrons, Pomegranates, Rasberries, Vinegar of Roses, Gelly of Harts-horn, made with Elder-flower Vinegar. *Syrups* of juyce of Citrons, of Pomegranates, of Wood sorrel, of juyce of Red Corants, Strawberries, Lorrals, Violets. *Conserve*, of Citron flowers, of Aurenges, of the pulp of Citrons, of Roses, of Acacia. *Preserves*, of Red and White Corants, Barberries, Citron, Meates, Eglantine berries. *Species and Powders*, of Diamargaritum frigidum, Diatrion fantalon, Magistery of Perles, of Corals.

Article 5. *Of Stomach Medicaments.*

Point 1. *Of hot Stomach Medicaments.*

Stomach medicaments are such as heat the stomach, or cool it; and that either taken inwardly, or outwardly applied.

Internal stomach-beaters are, 1. *Of simples*; Roots, of Pimpinell, Rhaponticum, Galangal, Zedoary, Calamus Aromaticus, Caryophyllata. *Leaves*, of Roman and common Wormwood, red and garden Mint, Cardiac, Cichory, Agrimony, Marjerom. *Seeds*; the four greater and lesser cool seeds, Coriander, prepared. *Fruits*, Juniper berries, bay-berries, Aurenges, Indian Nut. *Spices*, Nutmeg, Ginger, Mace, Cloves, Cinnamon, Galangal, Cubebs, all sorts of Pepper, Cassia Lignea. *Woods*, Lignum Aloes, Guajacum, Citron Peels, Orenge Peels. *Gums*, of Mastich. *Sea-medicines*, Ambar, Ambar-greife. *Of Componds*; *Spirits*, of Muscadine, of Rhenish Wine, of vitriol, of Mastich, of Wormwood, of Rosemary of Cinnamon, of bread. *Distilled Waters*, of Mints of Betouy, Sage, of Cinnamon, with and without Wine, Elixir vitæ, of Baum with Wine, of Zedoary with Wine. *Distilled Oyls*, of Peper, Calamus Aromaticus, Cloves Mace, Cinnamon, Caraway, Fennel, Wormwood, Orenge Peels, Tinctures, Elixir Proprietatis, of Amber, of Corals, of Sassafras Wood. *Extracts*, of Lignum aloes, Wormwood, calamus aromaticus. *Essences*; of Rosemary, Citrons, Wormwood, Aurenges; whereunto belong, Salt of Wormwood, Juniper. *Syrups* of Cinnamon, Mints, Wormwood Betony, Mastich, Oximel,

Oximel scilicicum, Syrup of St. Johns-wort flowers. *Conferus*; of Wormwood, Mints, Betony, Red Roses vitriolated. *Preserus*, of China Ginger, true Acorus, Galangal, Citron Peels, Orange peels, Nutmegs, Indian Nut, Myrobalans. *Species and Pouders*, Aromaticum Rosatum, Diatrion pipereon, Diaxyloaloes, Imperial species, Stomach-pouder of Brickmannus.

II. *External* are, 1. Of simples, such as have been already reckoned up, and of *Gums*, Ladantum, Tacamahaca, Styrax calamites. 2. Of *Compounds*, there are besides the aforesaid, the *Balsams* of Peru, Camemel Romane. *Oyntments*, Stomach Oyntment, Martiatum magoum. *Emplasters and Cataplasmes*, Emplastrum Stomachale, de Crusta panis, de Baccis Lauri, de mastiche.

Point 2. Of Stomach Cooling Medicaments.

Cooling Stomach medicines, are also internal, and external.

I. *Internal*. I. Of *Simples*, *Roots* of Cichory, Sorrel, Asparagus, Water-lillies. *Leaves*, Endive, Sorrel, porrfane, mirtle. *Flowers*, of Roses, Violets, balauftians. *Seeds*; the four cool feeds, barley, Sorrel feeds, Rose feeds. *Fruits*, Citrons, Quinces, Oranges, Pomegranates, myrtle berries, medlars, Famarinds, Corants, melons, and cowcombers. *Woods*, Sanders. *Stones*, Red corals. II. Of *Compounds*, *waters*, of Roses, Acacia, Strawberries, plantaue, porrfane, Quinces. *Juyces*, such as are mentioned among cooling Heart-medicines. *Syrups*, of corals, Juyce of citrons, Juyce of lowr Grapes, of Quinces, of Acacia, of pomegranates, Julep of Roses and of Violets. *Conferus*, of Roses vitriolated, of Acacia Flowers, Oak-tops, citron-flowers. *Confects* of Cichory Roots, Quinces, Spanish Lettuce. Diacidonium simplex. *Species and Pouders*, Diatrion fantalon, Diathodon Abbatis, Diamargariri frigid.

II. *Externals* are, I. Of *simples*, those we mentioned for inward medicaments. II. Of *compounds*; Oyl of Roses, Violets, Quinces, Water-lillies, unripe Olives.

Article, 6. Of Epatick Medicaments.

Point. 1. Of hot Liver Medicaments.

Liver medicaments are hot or cold: and they are internal or external.

I. The *Internal* are, 1. Of *simples*;

Roots, the five opening, greater and lesser; of Pimpinel, wild Radish, Squills, rhaponticum verum, Rhubarb. *Leaves* of Agrimony, Eupatorium of Meluz, Kunigund is her herb Mountain Chamadrys, Centaury, water-creffes, Betony, Liver-wort, Ground-pine. *Flowers*, of Centaury, Spike, Squinants, Elder, Liverwort, Hops. *Seeds* of Oranges, Citrons, Brooklime, Sefeli. *Fruits*, Aurenges, reifons, Juniper berries. *Spices*, Cinnamon, Saffron, Acorus, Zedoary, Indian Spiknard, Cassia lignea. *Woods*, Legnum aloes, Guaiacum, Santalum citrinum. II. Of *Compounds*; *Spirits*, of Elder, Guaiacum, Wormwood, Centory. *Waters*, of the Herbs aforesaid. *Oyls*, of Sage, Oranges, Wormwood, Juniper berries, Mace, Nutmegs. *Tinctures*, Elixir proprietatis, of Lignum Sassafras. *Extract*, of Gentian, Carduus, Lignum aloes, Wormwood, Guaiacum, Veronica, Calamus aromaticus. *Syrups* of Ground-Oak, Byzantinus Syrupus so called, of Hops, of Wormwood. *Conferus* of Chamadrys, Sage, Wormwood, Fumitory, Rosemary Flowers. *Preserus*, of Acorus, Citron peels, Citrons, Pimpinel roots. *Species and Pouders*, Diacurcumaz, Dialaccz, Diaxyloaloes, Diamargariti calidi.

II. *The external* are, I. Of *Simples*; those formerly alleadged. II. Of *Compounds*; Oyl of Roses, Quinces, Waterlillies, unripe Olives. *Ointments*, Unguentum Santalinum, Refringens Galeni, Rosatum Mesues. *Plaisters*, Cerotum Santalinum, Diaphanicon frigidum, Emplastrum de succo Ciculz.

Article 7, Of Splenetick Medicaments

Point 1. Of hot Splenetick Medicaments.

Splenetick Medicaments are hot or cold: and both are internal and external.

I. *Internal hot Medicaments* are, 1. Of *Simples*, the *Roots* of Fern which is counted an appropriate medicament, of Scorizonera, of Orice of Florence, of Polipody of the Oak, of Caryophyllata, of wild Radish. *Leaves*, of Scelopendrium, Harts-tongue, Scurvy-grafs, Tamatisk, Dodder, Hops, Fumitory, Brook-lime, Chervil, Galiopsis, Ground Oak. *Flowers*, of Hops, Broom, Elder, Chamamel, Fumitory, Liver-wort. *Seeds*, of Ath, Ammios, Water-creffes, Chervil, Mustard, Nettle, wild Parsenip, Scurvy-grafs. *Spices*, Saffron, Epithymum. *Woods*, of Sassafras, Lignum

Lignum aloes. *Barks*, of Cappar Roots, middle rind of the Ash Tree, of the Elder and Tamarisk Tree. *Gums* of Ammoniacum dissolved in Vinegar of Squils. II. *Of Compounds*; *Spirits*, of Wine taccarized, of Centory, of vitriol of Mars, of Tartar simple and compound, of Brook-Lime, of Scurvy-grafs, of Guajacum, of Juniper berries. *Waters*, of Dodder, Melissa compound, Hops, Water-cresses, Scurvy-grafs, Fumitory. *Tincture* of Mars. *Extracts*, of the Spleen of Jove, Scolopendrium, Harts-Tongue, Scordium, Fumitory, polypody. *Essences*, of Scurvy-grafs, of Epythimum, of Chamædrys, Fumitory, Dodder, Cappar. *Syrups* of Scolopendrium Fernelii, of Broom Flowers, of Epithimum, of Scurvy-grafs of Apples, *Forests* his Syrup against the scurvy. *Conferus*, of scurvy-grafs, scolopendria, broom-flowers, Fumitory, Veronica, Ground-Oak, Pimpinell. *Species*, of Dialacca, Diacurcuma, Dicapparium of Hollerius, Tartarus Vitriolatus.

II. *External medicaments are*, I. *Of simples*, those already reckoned, and of *Gums*, Ladanum, Tacamahaca, styrax. II. *Of compounds*, besides the forementioned, there are *Balsams*, of Peru, of Romane Chamæmel, of Mastich. *Unguents*, Unguentum stomachale, Martiatum magnum. *Plasters and Cataplasmes*, Emplastrum stomachale, de Crusta panis, de Baccis Lauri, de Mastichæ.

Point 2. *Of cooling Stomach-medicaments.*

Also cooling stomach medicaments, are either internal or external.

I. *The Internal, are*, I. *Of Simples*; the *Roots* of Cychory, sorrel, Asparagus, water-lilies. *Leaves*, all sorts of Endive, sorrel, pot-herb, myrtle. *Flowers*, of Roses, Violets, Balauftians. *Seeds*, the four greater cool seeds, barley, sorrel, and Rose seeds. *Fruits*, Citrons, Quinces, Oranges, Pomegranates, myrtils, medlars, Tamarinds, red and white corants, melons, cucumbers. *Woods*, Sanders. *Stones*, red-coral. II. *Of compounds*, *waters* of Roses, Acacia, strawberries, Plantane, pot-herb Quinces. *Juyces*, those which have been mentioned among the cooling Heart Medicaments. *Syrups*, of corals, Juyce of citrons, four Grapes, Quinces, Acacia, Pomegranates, Julep of Roses, and Violets. *Conferus* of Roses Vitriolated, Flowers of Acacia, Tops of Oak, citron-flowers. *Preserues*, of

Cichory roots, of Quinces, of Spanish Lettuce, Diacydonium simplex. *Species and pouders*, Diatrion santalon, Diarthodon Abbatis, Diamargaritum frigidum.

II. *External are*, I. *Of simples*, those already reckoned among the internal medicaments. II. *Of compounds*, oyl of Roses, violets, Quinces, of untipe Olives.

Article, 6. *Of Liver-medicaments.*

Point, I. *Of Heating Liver medicaments.*

Liver medicaments are heating or cooling. And the former are internal or external.

I. *The Internal are*, 1. *Of simples*; *Roots*, The five opening roots greater & lesser, roots of pimpinel, wild-redish, squil, Rhapontick, Rhubarb. *Leaves*, of Agrimony, of Eupatorium of Mesue, of true mountaine ground oake, Centory the less, Water-Cresses, Betony, Liver wort, ground pine, Flowers of Centory the less, spicknard, Squinanth, Elder, Liver-wort, Hops. *Seeds* of oranges, Citrons, Brooklime, Sefeli. *Fruits*, Oranges, Raysons, Juniper berries. *Spices*, Cinnamon, Safron, Acorus, Zedoary, Indian spike, Cassialignia. *Woods*; Lignum Aloes, Guajacum, Santalum citrinum. 2. *Of compounds*; the *Spirit* of Elder berries, Guajacum, wormwood, Centory the less. *Waters*, distilled of the foresaid Herbes. *Oyles* of sage, Orange-peels, wormwood, Juniper, Mace, Nutmegs. *Tinctures*, Elixir proprietatis, of Lignum Sassafras. *Extracts*, of Gentian, Carduus, Lignum aloes, Wormwood, Guajacum, Veronica, Calamus aromaticus. *Syrups* of Ground oake, Byzantinus, Hops, wormwood. *Conferues*, of Ground-oake, Sage, Wormwood, Fumitory, Rosemary Flowers. *Preserues*, of Acorus, Orange-peeles, Citron peeles, Citron pap, pimpinel rootes. *Species and pouders*, Diacurcuma, Dialacca, Diaxuloaloes, Diamargaritum calidum.

II. *The External are*, I. *Of simples*, those before specified, of which decoctions, Bags, and fomentations, may be made. *Ointments*, are Unguentum Nardinum, Martiatum. *Plasters*, Diaphænicon calidum, de Baccis Lauri, Oxycroceum.

Point, 2. *Of Liver-coolers.*

Liver coolers are either internal or external.

I. The

I. The *internal* are, I. *Of Simples*; Roots of Asparagus, Grains, Water lillies, Strawberry, Sorrel, Cichory, *Leaves*, of Sorrel, Strawberry, Alparagus. Sowthistle, Garden Endive, portlane, Lettice, Water lillie. *Flowers*; of Roses, Cichory, Bugloss, Balustians, Water Lillies, Acacia, red-poppy. *Seeds*, the four great and smal coole seeds, barley, white poppy, violets. *Fruites*, Pomegranates, &c. which we have reckoned among stomach-coolers. See *Gums and precious stones* in the same place. *From Animals*, shavings of Harts home and Ivory, whey of Goates-milk. II. *Of compounds*, Spirit of Vitriol, acid spirit of Sulphur, of salt. *Distilled waters*, of Cichory, Sorrel, Water Lillies, Strawberries. *Syrups*, of the juyce of Cichory, Endive, Sorrel, wood-sorrel, juyce of Citrons, and the rest reckoned among cooling stomach medicines. *Conserves, Preserves*, and species, see in the same place.

II. *External* are, I. *Of simples*, the same fore-cited. II. *Of compounds*; Oiles of Roser, Quinces, Water Lillies, unripe olive. *Ointments*, of Sanders, cooling Ointment of Galen, Unguentum rosatum of Mesue. *Emplasters*, Cerotum santalinum, Diaphenicon frigidum, a plaist et of the juyce of Hemlock.

Article, 7. Of Splenetick Medicaments.

Point, 1. Of warming spleen medicaments.

Spleen medicaments are, either heating or cooling, each of them internal or external.

I. The *internal Heating* are, I. *Of simples*; *Roots*, of Ferne, which are appropriate, of Scorzonera, of Florentine orice, of polypody of the Oake, of Avens, of wild radish. *Leaves*, of true scolopendrium, Harts-tongue, Scurvygras, Tamarisk, Dodder, Hops, Fumitory, Brooklime, Chervil, Galoplis, ground oake. *Flowers*, of Hops, Broome, Elder, Fumitory, Liver-wort. *Seeds*, of Ath, bishops-weed, Watercresses, Chervil, mustard, Nettle, wild parsnip, Scurvy gras. *Spices*, Saffron, Epithymum. *Woods*, Sassafras, Xylaloos. *Barks*, of capat roots, middle rind of ash-roots, Elder roots, Tamarisk roots. Gum Amontiacum dissolved in Vinegar of squils. II. *Of compounds*; *Spirits* of wine tartarized, of Centaury, of vitriol, of Mats, of Tartar simple and compound, of watercresses, of Scurvy gras, of Guajacum, of juniper berries. *Waters*, of Dodder, of baum compound, of Hops, of Water-cresses, of Scur-

vy-gras, of Fumitory. *Tinctures* of Mats. *Extracts*, of Joves Spleen, Scolopendrium, Harts-tongue, Scordium, Fumitory, Polypody. *Essences* of Scurvy-gras, Epithymum, Ground-oake, Fumitory, Dodder, Capars. *Syrups*, of Ceterach or Scolopendrium of Fernelus, of Epithymum, of Scurvy-gras, of Apples, the Scotbutick Syrup of Forestus. *Conserves*, of Scurvy gras, of Ceterach, of Broom-flowers, of Fumitory, of Fluellen, of Chamadrys, Pimpinel. *Species*, of Dialacca, Diacurcuma, Diacappatum of Hollerius, Tartarus Vitriolatus.

II. *External* are, I. *Of simples*, those before mentioned. II. *Of compounds*, Oyls, of Capars, Orice, Cheiri, Rue, Peach kernels, Almonds, Scorpions. *Ointments*, of dialoes, Martiatum, de Artianita, de Ammoniaco, Spleneticum. *Emplasters*, of Melilote, diachylum ireatum, Emolliens Foresti, diasulphuris Rulandi.

Point, 3. Of cooling Spleen-Medicaments

Cooling Spleen Medicaments, are internal or external.

I. The *internal* are, I. *Of simples*. *Roots*, of Cichory-like plants, and of which mention is made, among liver Medicines. *Leaves*, *Flowers*, *Fruites*, *Seeds*, may be also fetcht from thence. To these you may ad the barks of willow roots. II. *Of compounds*, are the same likewise, to which you may ad medicaments prepared of tartar and of steel. *Trochisks* of Sanders, spodium, Carabe, Barberries.

II. The *external* are, I. *Of simples*; *Roots*, of Mandrake. *Leaves* of white henbane, Hemlock, Willow, Water-lillies. II. *Of compounds*, see those reckoned among cooling Liver-Remedies.

Article, 8. Of Nephritick Medicaments.

Point, 1. Of heating Nephriticks, or kidney-remedies.

Nephritick Medicaments are either heating or cooling, both are internal or external.

I. *Internal heaters* are, I. *Of Simples*; *Roots* of restharow, Saxifrage, Filipendula, Pimpinel, Lycoris, Marsh-mallow, Polypody, Lovage. *Leaves* of maiden haire, Walrue, Fluellen, Chervil, Nettle, ground-ivy, Pellitory of the wal, Feverfew, Restharow.

Flowers; of Broome, Spike, Elder, Betony, the yellow of violets, St. Johns-wort flowers. *Seeds*, the four greater and lesser hot seeds, persly, gromwel, Saxifrage, Cherry-stone-kernels, Peach-stone-kernels, Oake of Jerusalem, Beanes. *Fruits*, Juniper berries, Ivy-berries, winter-cherries, bitter Almonds, Sweet-briar-berries, Corants. *Spices*, Cassia lignea, Spica Indica, Safron. *Woods*, Lignum Sanctum, Nephriticum, Tamarisk. *Gums*, Turpentine, Myrrh, Mastich, Olibanum. *Minerals*, Lapis judaicus, Lapis Nephriticus. *From animals*, the stones of Perches, Crabs-eyes, Earth-wormes, Eggs-shells, Jawes of a Pike. II. *Of compounds*, spirit of salt, Turpentine, Elder berries, Strawberries, Cherries, Vitriol, Feverfew. *Distilled Waters*, of Rest-harrow, saxifrage, Persley, Hedera terrestris, Alkekengy, Matricaria, Elder flowers. *Oyls* of Orenge, Juniper, peach-kernels, cherries, bitter almonds. *Tinctures*, Elixir proprietatis, of Ambar. *Extracts*, of veronica, Ground-ivy, Lycorice. *Syrups*, of Maiden hair of Fernelius, Byzantinus so called, of dialthea, Oxymel. *Conserver*, of Hedera terrestris, veronica, Sweet briar-berry. *Spices and pouders*, Lithontripticon, Tartarus Vitriolatus, Restharrow-Salt, salt of Beane ham, chervil, Nettles.

II. *External* are, I. *Of simples*, such as were before alledged. II. *Of compounds*, Oiles, of scorpions, white lillyes. *Ointments*, Martiatum, Agrippæ, Ategon, dialthea. *Emplasters*, diachylon simple, Oxycroceum, Melilote.

Point, 2. *Of cooling Nephriticks.*

Cooling Nephriticks are internal, or external.

I. *Internal* are, I. *Of simples*, *Roots* of Grass, Strawberries, Water-Lillies. *Leaves* of Porflane, Willow, Venus Basin, Heartsease, Lettuce. *Flowers*, of Water Lillies, Violets, Roses, Beanes. *Seeds*, the fouer cold, white poppy seed, seed of purple violets. *Fruits*, see among the stomach and liver coolers. *Stones*, Christal. II. *Of compounds*, *Waters* of Strawberries, Violets, barley, porflane, Lettuce. *Juyces*, of Citrons, Strawberries, porflane. *Syrups*, of Water Lillies, Strawberries, porflane, syrup of the juyce of Citrons. *Conserver*, of Acacia, violets, porflane.

II. *External* are the same, to which ad of the *compounds*, Oyls of Roses, water lillies, sugar

of Lead. *Unguents*; The Ointment of Roses of Melur, Galens cooling Ointment.

Article, IX. *Of Uterine Medicaments.*

Point, 1. *Of heating Uterine or Womb-Medicaments.*

Uterine Medicaments are either Heating or Cooling, and they are internal or external.

I. *The internal* are, I. *Of simples*, *Roots*, of Peony, Valerian, Laserpitium, Angelica, Pimpinella, Bryony, Aristolochia rotunda. *Leaves*, of Mugwort, Rue, round Birthwort, Mercury, Feverfew, Sabine, Betony. *Flowers*, of Betony, Chery, Elder, St. Johns-wort, Stechados, spikenard. *Seeds*, foure hot, mountaine olier, red verches, Rosemary, peony. *Fruits*, Indian Nut, Juniper Berries, Orenge. *Spices*, Cinnamon, Cassia lignea, Nutmegs, Cubebs, Graines of Paradise, Safron. *Woods*, Lignum aloes, Ash, Guajacum. *From Animals*, Castoreum. II. *Of compounds*, *Waters*, of Mugwort, Hysop, Elder, Cinnamon, Zedoary, yellow stock-gillo flowers, betony with wine. *Oyls*, of Cinnamon, Angelica, Ambar, Cloves. *Tinctures*, the Uterine Elixir of Crollius, omitting salt of mother of perle. *Extracts*, Hystericum majus and minus of Quercetanus, of the Liver and Splene of an Oxe, of Baume, of Lignum Aloes. *Syrups*, of Mugwort, Fevertew, Orenge, Baume, Cinnamon. *Conserver* of Marjerom, Betony, Baum, Rosemary, Marygolds. *Preserver*, of Acorus, citron peeles, Orenge, Nutmegs, Zedoary. *Pouders*, Diacalamin, Diaxyloaloes, diacinnamomum.

II. *External* are, I. *Of simples*, the greatest part of the foresaid, to which may be added, Gum Olibanum, storax, bdellium, myrrh, Ladanium, Assafetida, Galbanum, Opopanax, Sagapenum, Ambar. *From Animals*, Castoreum, civet, Musk. II. *Of compounds*, *Oyls*, of cheiri, Angelica, Rue, Castoreum, Nard oile, Scorpions, Nutmegs. *Unguents*, of Bay-berries, Gum Caranna, ceratum matricale, or of Galbanum, &c.

Point, 2, *Of wombe-cooling Medicaments.*

Wombe cooling medicaments are also either internal or external.

I. *The Internal* are, I. *Of simples*, *Roots*, of

of bistort, comfery. *Leaves*, of Strawberry, Shepherds-pouch, Vinca pervinca, Plantane, Oake, great comfry, Porflane, Nettles, loofe-strife. *Flowers*, of Roses, Quinces, Balauftians, Water-Lillies, Loofe-strife, St. Johns wort, Comfery, Willow. *Seeds*, of porflane, Plantane, Henbane, white-poppy. *Fruits*, of Acacia, Pomegranates, Medlers, Myrtles. *Woods*, Sanders. *Gums*, Dragons-blood. *Earths and miniralls*, Bole Armeniack, Red coralls, Perls, Christial. II. *Of compounds*, they are such as are made of the foregoing simples, and may be known by what has been already said.

II. The *external* are the same we alleadged in the simples. The compounds have been for the most part declared, in the Nephriticks and Hepaticks.

Chap. 7. Of vegetable Medicaments, referred to the seven Planets.

Planetarie Medicaments are they, which according to the opinions of some Men, have received their virtues and names from the Planets, and depend upon them in their operations.

They are as manifold as there are planets, viz. Saturnine, Jovial, Martial, Solar, Venereal, Mercurial, Lunar.

I. Those are termed *Saturnine* which are of an horrid aspect, ingrateful or venomous smell, stiptick tast, leane shape: and they grow in moist places, filchy and woody, solitary, and dark; and of this kind are wolfs-bane, Agnus castus, Calves-head, Smallage, Finger-fern, Star-wort, orach, Blites, Shepherds pouch, Hemp, Cappars, Hemlocks, Cumin, Cypress, dodder, Epithymum, Horse-taile, Fern, Fumitory, Hellebore, Henbane, Great dock, lupines, Mandrakes, Moiss, Opium, pine, Polypody, Sloetree, Rue, Willow, Cetrach, Scrophulary, Sena, Serpentaria, sefely, Nightshade, Tamarisk, Eugh, Vervaine.

II. *Jovial* are such as have a pleasant tast and smell, red or blewish flower, an olive substance, plaine leaves, and delighting in fat places: such are Gloves, Cherries, strawber-

ries, Olive trees, Betony, Flaxe, centaury, Barberyes, Red corants, Avens, Artinart, Fumitory, Teuctrium, Mullint, Comfery, Galangal, Birch, Ground oake, Almonds, Madder, Prunella, Rhubarb, Loofe-strife, Borrage, Bugiols, Mulberries, wheat, Thiorow waxe, Sophia, Pomegranates, Violets, Coral.

III. *Martial* are of a pointed rough shape, of a caustick tast, a color tending to redneis, & they love dry places, such as are Nettles, Thistles, Restharrow, Eiula, Rhamnus, brambles, Flammula, Onions, Leeks, Garlick, Radish, Peperwort, Wolfes-bane, Henbane, Artinart Alparagus, basilicon, &c.

IV. *Solar*, are of a regal forme, of colour yellow or orange tawny, of fragrant smell, pleasing tast, and love sunny and meridional situations, *Such as are*: the Flower of the Sun, Safron, Celondine, Baum, Motherwort, Gromwel, Rota solis, lillies, Gentian, laurel vine, Elecompane, St. Johns wort, Athe, Marygold, Gold-flowers, Rosemary, Mints, Citronwort, and some others.

V. *Venerial* are such as have a white flower, a clammy humor, a sweet tast, a wanton smell, shape of leaves smooth not jagged: *Such as are* Satyrium, Vulgar pease, boletus cervinus, Cuckow-pintel, pine and oake-apple, Parinips, Water Lillies, Daffodillies &c.

VI. *Mercurial* are, such, as have a various color of the flowers, bear coods, and are bred for the most part in a sandy place; *such as are*, Beanes, Chamemel, Trefoil, daisies, juniper, Wallnurs, Hafils, Elders, Dragons, Monywort, Lungwort, Anise, Cubebes, Marjerom.

VII. *Lunary*, are such as have thick juicy leaves, of a watry or sweetish tast; they soone grow to their just magnitude, and love marish watry places; *Such as are*, Coleworts, Gourds, Melons, Pepons, Mandrakes, Papaver eritaticum or Red poppy, Lettuce, Rapes linden tree, Duckweed, &c. See hereof *Esclerus* in his I sagoge-Physico-magico-medica, and *Helvicus*, Dietericus de Novo orbe; also *Toxita* his Cornu salutis, and *Carrichterus* de plantis. Also in *Turniferus*. you shal find many things:



THE
FOURTH BOOK
OF THE
IDEA
OF
PRACTICAL PHYSICK.

Title, I. *Of the Method of Healing in General.*

The Method of Healing is an Art of Inventing by help of Indications, such Remedies as are apt to heal the Infirmities of Mans Body.

There are therefore three things therein observable: the Indication, Indicant, and Indicatum.

I. The *Indication* is the Method of finding out from the Nature of the Indicant, the Indicated Remedy, which the Indicant is found to require, for the attainment of his End. And this is to be understood of the Indication habitually taken, viz. as it is in the mind of the Artificer. But if it be considered in its own Nature as it is in the Indicant, it declares nothing but a certain relation of the Indicant to the Indicatum, as of a signe to the thing signified, or an Antecedent to its Consequent. In which respect *Galen* calls it the strength of Consequence.

II. The *Indicant*, is that which of it self

and its own Nature sollicitates the Physicians help, requires some profitable medium to attaine a good propounded, and affords a true curative Indication. Now this ought to be, in the first place, 1. Known to the understanding. 2. An Agent; and to be carried out to good by its natural Instinct. 3. To be in the body of man. 4. To be permanent, and not to have its essence in fiery or a momentary transaction. 5. That, inasmuch as it is one, it indicate only one thing, that it indicate or hint the same by its own nature, and that as being but one thing, it can have but one Nature. Such a true and single indicant, is neither the disease, nor its cause, nor any Symptom; but the strength, virtue and faculty of a body cureable, or the virtue and faculty fanative in a body fanable, and that active, which is naturally moved to health, as to its perfection. *Not the Disease*: For that is the primary indicant to which all things are referred; the same is the Condition of Ends and indicants. But the Physician does all for Healths, and not for the diseases sake. The indicant is permanent in the body. But the disease does not stay, without its own Homogeneous Cause. To the indicant we owe a helper, because it indicates for its own sake. But a disease not for its own, but healths sake, &c. *Not the*

the Cause, for it is not every kind of helpe, but a curative help which we seek after. The Cause as it intends the corruption of mans body, cannot indicate or hint anything but the corruption thereof. *Not the Symptom*, because it abides not. The *Forces of the Body are the only and primary indicant*; For you must first consider the Forces and strength of the Body, before you set upon the Cure. Lighter diseases are to be committed to Nature; dangerous ones and such as are towards their Crisis, are not to be tampered with; desperate ones admit no cure. The forces of the body must not be quite dejected and worsted, for then nothing is indicated; not yet *lusty and strong*, for then they can do all of themselves. Of times nature brings the morbidick matter through the middle of a bone, and makes an imposthume, casts out the sanies of the lungs, by urine or stoole, expells the stopt couries by the Eyes, the holes of the teeth the toes of the feet, &c. But they are the *tortering* forces of the body, which require help, and consequently indicate.

III. The *Indicatum*, or Remedy hinted, is that which ought to help the diseased body; safely without danger of a relapse or injury to the body; pleasantly without nauseousness and overmuch trouble; and quickly without any delay. Touching which observe, 1. That none reduces health by its own proper force, but by the Assistance of the inbred Heat, or nature it self, so that Nature does the work properly and formally, the remedy only as her instrument or Handmaid. 2. That it is not contrary to a disease, if it be simply considered as an Entity of such or such a nature: but it is contrary, as it is joined to an animate body, and actuated by nature. Yet not primarily and of its own nature, but obliquely and secondarily; both because it assailes the Disease with forces which are not connatural to it; also because vomiting is often cured by vomiting, looseness of the Belly by purging, stiffness of the whole body called *Tetanus*, by throwing cold water thereupon; and finally; because diseases are likewise commonly cured by their causes. So worms are killed by the powder of worms, the flux of arterial blood by some drop of blood drunken, or the powder of dried blood sprinkled on. 3. Their Use, in due quantity time and place, to which some ad the manner.

Title, II. Of the Method of healing in special.

Chap. 1. Of the Additional Method.

SO much for the Method of healing in general: the special Methods follow, and they are Additional and Abstractive.

The *Additional Method*, is that which supplies as much as is wanting in the powers of nature, by *Augmentation and multiplication of the Virtue*.

I. It is *Necessary*, because, seeing no disease happens but the faculty of the body is hurt: yea & the form of sickness consists in the inability to act, so that the said inability being supplied, the form likewise of the disease is reduced to the habit of Health.

II. The *Indicant* in this Method, is the *Sannative* or healing Principle in the Patient; which is neither the *Soul*, because that is alwaies like it self subject to no violence or hurt of sickness: nor the *Body*, because that is meerly passive, and indifferently disposed to sickness or health; but it is *the innate Heat*, which is rightly termed the true, proper, and immediate subject, wherein the curing faculty resides. For by it, verily, the parts do live and act. Therefore *Aristotle* calls it the spiritual Warmth, and implanted Heat, and *Hippocrates* terms it the Soul of Man, which is alwaies produced and removed even to his Death. This tempers and tunes the whol body, and moderates al the offices and ministeries thereof; reduces al excesses to a geometrical proportion, and such an equability as is convenient to Nature; and because it congregates and collects things homogeneal and separates things heterogeneal, therefore it ripens al crudities, seperates al impurities, and tempers and unites the dry with the moist.

III. *Indicatum*, the thing *Indicated* or Remedy in this Method, is somewhat that is like and familiar to the Indicant. Like wil to its like, and cleave to it, but a thing disagrees and separates from its unlike. Now this Remedy according to the definition of *Peirass*, is a spiritual Quintessence, that is to say, a certain most thin, and most subtle and delicate substance, as it were of a middle nature between matter and form, Soul and Body, and that different from the Elements and their Qualities, perfused with a Celestial Heat, and underpropped with a prinngemial moisture, furnished

furnished with many noble vertues, implanted in the first Creation by God, together with the form and seed, that it might be the proper and immediate Receptacle and Instrument of the form, by which the Individual, the temper of the Qualities assisting, might be preserved in a sound condition, and the Integrity of all its Functions, the Species propagated, &c. See what he saies in his inaugural dissertation, and my Father in Law *Vechnerus* in his *Anacephalæosis typica Therapeutices Catholice*, whose steps we tread in, at present.

Chap. II. Of the Abstractive Method in general.

The *abstractive* Method is considered, either in general or in special. Considered in general, it teaches us to free the sanative Power of the Body from all Impediments, and to advance it into action.

I. The *Indicant* in this Method, is the Nature of Mans body wanting health, hindered and provoked: from which the Causes and Diseases are to be taken away. The End is their removal.

II. In the things indicated, or Remedies taking away, we are to consider, the *Matter*, *Forme*, and *Use* or *Administration*.

I. In respect of their *Matter*, they ought to be commonly opposite to the Disorders, at least casually and effectively. And therefore there are to many differences and kinds of them, as there are of preternatural dispositions of the Body, according to the order whereof, they are elegantly distinguished, as I shal hereafter declare.

II. The *Formality* of these abstractive Remedies, is, their ability to assist the Healing Vertue of our bodies to shew it self in its operations. And they are the best which approach the nearest to the Natural Constitution, and help the innate heat, or no waies hurt the same, or which according to nature do agree with a body that is in a capacity to be healed. Here respect must be had to the strength of the Body, and to such things as agree according to nature, with a body capable of healing, and restrain the latitude of the Remedy, to some certain Subject and Part affected. Touching the *Forces* of the body, observe, 1. That not only they are to be considered, as they are at present, but as they like to be after Medication or use of Remedies. 2. That such as are lusty, may bear stronger

medicines. 3. That such as are in a feeble condition, cannot without great danger, endure medicaments that stir much; and that they require alimentary and ballamick Medicaments. 4. That being spent and exhausted, they must be repaired by ballamick medicaments. 5. That being overpressed with plenty of blood & humors, & therefore invalid, they require a sudden, and consequently a plentiful evacuation. Concerning the Subject we must examine the Nation, Sex, Age, Region, Air, State of the Heavens, the times of the year, and of the diseases. *Propriety of the Patients temper*, because it has many singularities in it, and there is no knowledge of singular things because infinite, it requires diligent inquisition, into the Education, Parents, Diet, use of the things called Nonnatural, Diseases, Medicaments. Natural Inclination, which carries with it, the Imagination, but especially the Customes of the Party under Cure. Touching the *Part*, observe, 1. That it requires a Remedy appropriate, or such an one, which respects the same by some propriety, to which consideration also vehicles belong. 2. That the principal parts especially be so handled, that they come not by resolution of their fibres and strength, to decay and perish. 3. That their Qualities and Tempers are likewise to be observed. 4. Also their situation, connexion, their convenient sensation which rejects sharp things, &c.

III. The *Use* or administration of Remedies is circumscribed in the Consideration of *Quantity*, *Time*, and *Place*. 1. Touching *Quantity* when the Question is, whether little or much; or, in what weight and dose: the former is hinted by the Quantity of the cause or disease. Therefore we must first exactly know what things are according to nature. So much must be taken from the body, as is superfluous; yet must we not over do. And we must know that 'tis alwaies more safe, in a doubtful proportion, to fal rather too short, than to exceed. Touching *this matter* take these rules: 1. Infirmities which have taken deeproot, need stronger remedies, than such as are slight. 2. In a mild infirmity we must do all at once and suddenly, and so we must in an extreme and dangerous sickness, because it quickly finishes its course, and quickly kills. 3. In indifferent and cronic diseases, we must endeavour to expel them by little and litle, and slowly; but we must withal take heed, least while we go about to quench a mighty flame with a smal Quantity of water,

we make the fire burn the faster. II. The Time respects, 1. Seasonableness, of which note, 1. That we must then act, when the Patient can best bear it. 2. That the motion of nature must be alwaies furthered, unless it be dangerous. 3. Turgent humors, must be drawn out the self same day. 4. About the beginnings and ends of Diseases, stronger medicines may be given, because then al the symptoms are weaker; in the state it is better to rest, because then al is at the height. 5. The Constitutions of the Heavens, that is to say, both the Conjunctions, Rulings and Settings of the Stars, as also the great changes of times, especially in cronical sicknesses, are to be considered, &c. II. Method or good order in the plurality of things to be done. Here observe, 1. That disjoyned Diseases, do require distinct Remedies, so that they may be cured either severally, or both together. 2. That connex and complicated diseases, if they consent, may be cured either together or apart, and you may begin with which you please; and if they dissent, we must oppose both with a kind of mediocrity; if they partly agree and partly disagree, we must begin with that which, though the Cure of it do not help, yet it hinders not the Cure of the other. 3. In al diseases, whether they be disjoyned or conjoyned, respect must be had above al things, both of that which urges, and of the Cause or Concomitancy; so that we must first cure that which urges most, and that upon which the rest depend. Under the Motion of Causality or Concomitancy come, both al *Impediments*, without the removal whereof no Cure proceeds; as also the *Fomentis*, upon which the other hurts, being linked and chained together, do depend in their production. Now that is laid to Urge, which exceeds the other hurts of the body, either in magnitude and malignity, or in the vehemency and celerity of the the hurt they do. III. Touching the Place, these things are observable. 1. That the inclination of nature and conveniency of the Vessels must be observed. 2. That the matter must be voided the nearest way, by ignoble parts; by a natural channel; and by waies cleer and direct. But of these things, God-willing, I wil treat most methodically and accurately, in my *Synagona*.

Chap. 3. Of the abstractive Method in Special, and first of the taking away of Causes.

Article, 1. Of the taking away of Causes which offend in Quantity.

The Taking away of Causes respects both Humors offending in Quantity, Quality, Motion and Place, and likewise wounds themselves: of which notwithstanding, they are not so exactly to be considered and by themselves, but that they may sometimes be complicated together.

The taking away of Causes which offend in Quantity, is performed by Blood-letting, Frictions, Fasting, Bathing, Hemorrhoides, Monthly Courses, Scarification, Cupping-glasses, and Haise-leacher.

I. Touching Blood-letting these things occur considerable. 1. Whether it is to be done or no. I. A Vein is not to be opened. 1. If the forces of the body languish, as being changed by Fevers, long diseases, distemper of the ambient air or other things, some venemous quality, immoderate evacuation of Humors, Labour, Grievous Pain, and passions of the Mind. 2. If a Woman be sickly, and of a whitish color. 3. If it be a child, because its heat is apt to dissipate. 4. If the Patient be over fearful. 5. If the disease be in its highest vigor, which attains the Crisis. 6. If a crude distemper afflict, without fault in the blood, and it may otherwise be amended. 7. If crude juyces abound in the whol Body, especially in the Summer time, the stomach being weakened, the body soft, and a fever be joyned. 8. If a crude and cold juyce afflict the mouth of the stomach, whence an heart-burning proceeds, by reason of the vicinity of the Heart. 9. If boyling juyces abound in the whol body, which wast the Spirits, and being carried into the stomach Cause a deliquium. 10. If venemous diseases afflict the body. 11. If a critical Evacuation were sufficient. II. A vein may be opened, 1. If the forces of the body languish, being oppressed. 2. If the disease be great, which afflicts vehemently, for a short time, with a feverish heat and working of the blood. 3. Yea in a person of seventy years of Age, provided the pulse be considerable, and the nature of the disease, and plenty of blood require the same. 4. Also in a Woman with child, both in the first and last months;

if shee have an acute disease. II. We are to consider *at what time a vein is to be opened.* Touching which observe. 1. That such diseases as are caused by a plethora, in them a veine must presently be opened, at any hour of day or night, before it transfer it self into some noble part and the strength of the body come to languish. 2. In feavers it must be done, in the times of Remission and Intermission. 3. If the greatness of the disease require not hast; the best time is to open a veine in the morning, an hour after the patient has been awake. 4. When we would reiterate blood-letting for evacuations sake, we must do it the same day. III. *How much blood is to be taken; I. where observe.* 1. *Blood may be more freely taken away,* 1. When the Forces of the patients Body are lively. 2. From Persons of a rosey-color, of a thick and yellow habit of body, having large veines, and being formerly accustomed to blood-letting. 3. In a vehement and great disease, when the forces are vigorous, we may let blood til the patient swoon, howbeit we are not ordinarily to stay so long; but when the color of the patient changes, and his pulse growes weaker, and when the blood runs with a lesser streame than before, (unless fat or some other gross matter hinder it) then we must cause it to be stopped. II. *It is more sparingly to be diminished,* 1. In an impure plethora. 2. In a melancholick plethora; because, it is not so hot as to require cooling. 3. In a flegmatick plethora, because the humor being exceeding cold, is made more crude by blood-letting. 4. In children and old people, specially in the Summer. 5. When the forces are discomfited, and the disease is urgent: for then it must be taken away by peccemeal at sundry times.

II. *Frictions, Sweats and Baths,* do lessen the quantity of humors: because they raise that which dissipates and dissolves the substance of our body.

III. *Tasting* does the same, because nothing is restored in the Room of what is dissipated, through restraint of food. Because it equally evacuates the whol body, it ought to be used in an universal cacochymia. Because it operates too slowly, it is unuseful for a sudden evacuation. Also old persons can better beare it then children. Cholerick and leane persons cannot endure it long.

IV. *External Hemerobordes* or a portion of the hemorrhoidal veines, are used to diminish plenitude, and for the diseases of the kidneys, womb, back and hip. They must be

opened by frictions, Leeches, Fig-leaves, rough cloaths, juyce of Onions, Centaury &c. The internal are opened by clysters and sharp suppositories, to cure hypochondriacal distempers, of the Liver, spleen and Mesentery.

V. *The Courses* are to be moved, then when naturally they use to flow.

IV. *Cupping-glasses,* are applied when blood is not very plentiful in the Body. Their greatest use is in Revulsion. They are conveniently fastened to the Armes of women with child. If their use respect the whol body, they must be applied to the interior parts; if they respect any part they must be applied to the same part.

VII. *Scarification,* if it supply the place of blood-letting, it is practised chiefly upon the thighs, yet sometimes upon the Arms and Back: and so it revells from the Head. If it be used upon its own account, it is to avoid a malignant and sharp matter: which is practised in the Gangren and in Callolities, or Calous disorders.

VIII. *Leeches,* if they are applied to evacuate the whol body, they must be applied to the great and prominent veins which are in the Armes and thighs. In women with child they are applied only to the Arms.

Article, 1. *Of the Removal of Causes which offend in the Quality.*

Point, 1. *Of alteration,*

The Removal of the Causes offending in Quality, consists in Alteration, Purgation, Vomiting, Urining, and sweating.

Alteration is the contemperacion of Causes offending in quality, by convenient remedies.

And it is so manyfold, as there are causes or humors. And therefore.

1. *Choler,* because it offends in Heat and drouth, needs cooling and moistning; and if it be withal thick, it needs incision and attenuation; if thin, incrassation or thickening. See the Medicaments before. Now for their more convenient use, we must observe, 1. That Infusions are best in the water, so that the decoction be made til a third part of the liquor only remaine. 2. If a flux happen to rise we must forbear the use of sharp medicaments, least they bite and vex the Guts; yet may we use Syrup of red Corants, Barberies.

II. *Flegm* because it is cold and moist, requires heating and drying: and if it be withal thick and clammy, it needs cutting and attenuation. The Medicaments we formerly recited

recited. Touching their use observe these rules. 1. Abstaine from such as are very hot at the beginning, least the matter being melted should swel with greater motion, and the thin parts being consumed the thick should remaine behind. And therefore they ought to be put green into decoctions: in their defect, cold things ought to be mingled with the dry ones. 2. Strong openers ought to be avoided in a woman with child. 3. Because where flegm is troublesome there the stomach languishes, to those that are not accustomed we must give them their drinks actually hot. 4. If you would have the remedies penetrate the most distant parts of the body, and carry their virtues with them; they must be given boiled or beaten, in broath of Guajacum, with a great Quantity of Liquor.

III. *Melancholy*, in which we must abstaine from immoderate use of Vinegar, especially if the matter be more fervent than ordinary. For black humors do ferment and swel by the admixture of vinegar. And therefore if we are to use it, we must give Oxymel with a decoction of Citron peels or some such thing.

IV. *If divers Humors are mixed together*, we must chiefly set our selves against those, which are most active, not quite neglecting the rest, whether within or without the body. Which shall be done when the veins are free from obstruction, all the passages of the body open; the humors not far from a temperature, and the noble bowels free from obstruction. In opening syrups Heurnius observes this order 1. First syrup of vinegar is given; then syrup of the two roots without vinegar, then the said syrup with vinegar, after that syrup of the five opening roots, then Syrups of Byzantinus so called without vinegar, and lastly the said syrup with vinegar.

Point, 2. Of Purgation.

Purgation, is a convenient drawing out of Humors offending in quality, but yet prepared, out of the Body, by medicaments which purge by way of stooke.

I. Those Humors are either small in quantity, or plentyful, and either they cause a fever; which is vehement or weak, or they cause no fever; or they wander through the whole body with vehemency of symptoms or not.

II. By *Coction* in this subject, we do neither understand that which is called peplis, and is a changing of the thing to be concocted into the nature of the Concocter: nor is it that coction which is opposed to crudity which

is the indigestion of aliment, in the stomach, liver and veins; or humors having passed the mediocrity of Coction, as in yellow and black choler; nor the redundancy of cold humors: but that kind of Coction which is called *Pepasmos*, and is nothing but the reduction of humors disagreeing in substance and qualities, corrupt and putrid, into a similitude, and the separation of the corrupted from the uncorrupted; which is performed by the Efficacy of the Natural Heat, separating the profitable from the unprofitable. Yet is it not necessary that all humors be concocted. For there are humors which are not in a capacity of concoction, being severed from the concoction of the blood, as in Catarrhs, the Colick, Flegm, Hydropical water, and such as offend by some hidden Quality.

III. *Preparation of Humors* is twofold: 1. To Coction, which is performed by removal of all impediments, by diminishing the Humors, augmenting the natural Heat and repairing the forces of the body. 2. To evacuation which is done when the Humors are made fit for expulsion, such as are clammy being cut, and the thick attenuated, the waies being made free and open, with clysters, emollient broaths, and the like.

IV. Touching *Medicaments* these things are to be observed. 1. That they are either moderate, which reach only the inferior parts: or vehement, which penetrate beyond the liver and into the habit of the body: that they are either catholick or universal, by which all humors are purged together; or such as draw some particular humors, and they Cholera purges, Flegm purges, Melancholy purges, Water purges. 2. That they ought to be addicted and accommodated to the part to be purged. And truly, Agrick is appropriated to the Head, Cassia to the breast, Aloes to the stomach and Gutts, Rhubarb to the liver, Sena to the spleen, Hermodactyls to the joints. 3. That they ought to be of equal pace in operation, that one do not prevent and out-run another; and that they must be mixed with odoriferous medicaments of thin parts, least they overthrow the stomach, and that wind may be dispelled: yet must not these odoriferous ingredients be in so great quantity, as to move urine. 4. Alwaies to abate somewhat of their strength. 5. That they act by help of the expulsive faculty so as to disturb and jumble the whole mass of Blood, then to separate the humors, whether any part of their substance be drawn into the veins, or they act only by a vapour sent forth.

V. The Conveniences of Purgation, viz. Whether or no? How much? When? After what manner?

I. As for whether or no, observe, I. That you must not purge, 1. If there be paucity of Humors, 2. If the Body be sound and of a good temper. 3. If the patients purge only by the smell of the Physick. 4. If the forces of the Body are weak by way of dissolution; and then the Artery pressed with three fingers does not fly up; or one finger being removed, it is not felt by the next; or there are more little than great pulses, more languid than vehement, more slow than swift. 5. If the stomach be weak, in which case a Clyster is convenient. 6. If there be plenty of crude humors; because gripings are raised, and little to speak of evacuated. 7. If there be an Impostume in the Guts. 8. If the midriff be stretched, raised, burning, inflamed, and the Urine fiery. 9. If the Member from whence you intend to purge, be troubled with some raging pain. 10. If the Belly be bound & no clyster given. II. You must purge, 1. If there be gripings without a fever, heaviness of the knees, and paine in the Loins, 2. If the matter, conceived in the member be moveable 3. If the sick be hard to vomit, and moderately fleshy. 4. If nature do not incline to a Crisis. 5. If the foregoing conditions are absent. III. You must warily purge, such as are of an healthy and pure body, idle, apt suddenly to faint away, such as are frampold and hard to please, Children, old Men, women, such as easily vomit, such as are leane and of a thin body, and those that are of a cold and moist constitution.

II. As for how much, observe. 1. That you must alwaies purge rather with a little than a great dose. 2. That the parts in the Region of the Belly, require lenitives, in the venous or veine-region, moderate purgatives, those in the habit of the body, vehement ones. 3. Strong forces of the Body, with great abundance of Humors, does prohibit a medicine, which purges plentifully and tumultuously, least the spirits be dissipated; but when the humors are not so plentiful a strong medicament may be given. 4. That the Bodies forces being weak by repletion, do require smaller purgations, the remaining Humor being drained out by gentel repeated Lenitives. 5. That the forces languishing through resolution of the Body, do only require gentel and partial or repeated purgations. 6. Women with child in the seventh month must be gently purged, least the child being heavy come by strong agitation of the medicament, to be cast downward. 7. Old persons, because with

tract of yeares their benigne juyces are exhausted, cannot bear strong purgers. 8. Nor yet children: because they grow and their humidities do easily evaporate. 9. Men of rare or thin texture of Body, if they be strongly purged, they suffer detriment thereby. 10. Leane persons, because they have large veines are easily purged. 11. Long-legged persons, are easily purged. 12. Such as live hardly, as labouring Country-people, are not moved with a gentel purge. 13. Melanchollick persons, whether they be so by nature, diet, or sickness, because they are for the most part of good strength without danger of weakness, and have their bodies solid and full of juice, must be strongly purged. 14. But stammerers must be gently purged, because they are liable to a looseness. 15. When only the stomach is out of frame, gentler purgations must be used, least more ill humors be drawn to the stomach. 16. Great plenty of Humors, profoundly situated in the body, do need more plentiful purgations either jointly or severally. 17. Where we need more evacuations, we must begin with the most gentel. 18. We must then use strong purgations, when gentel wil not do the deed.

III. Touching the quando, or when you must purge, take these Rules. 1. That women with child ought not sooner to be purged then when the child begins to stir, & that when the Humors work. Women in childbed, must not be purged til their month be over. 2. In Peracute diseases, If the matter be unruly and in motion, you may purge the very same day, by reason of the tenuity and fluxibility of the matter. 3. In the fits of intermitting diseases you must abstaine from purging, in the time of Remission and Intermision, you must purge, 4. In long-lasting diseases, we must not purge before the matter be attenuated and made fluent, and the passages opened. 5. In the Summer time, before day; in the winter give your purges in the day. 6. The juyces which are in motion, or wil shortly be in motion, must be purged, to prevent the Encrease of the disease, and that the part may not be marred by over abundance of the juyces. 7. In the Dog-days and immediately before you must not purge; For the bowels Heated by the violence of the Season, do easily entertaine a fever.

IV. As for the question, after what manner, take these following rules. 1. To every Humor you must apply its proper purgative. 2. To near parts, and in Melancholy cases, liquid Medicines are good: in remote parts, you must use solid ones, which stick long in a place, and spread their virtue more effectually

effectually. 3. Vomiting, which is wont sometimes to arise, after the taking of a purge, is staid by stomach-strengtheners, or cupping glasses applied to the navel, or with juice of pomegranates, in such as are of a weak stomach and hot liver, it is prevented by holding an Eg to the throat, or putting toasted bread to the nostrils. 4. Loathing of the stomach is taken away by a linnen cloath wet in Vinegar put upon the Cup, or by washing the mouth with juyce of pomgranates, before the potion is taken. 5. A purge which causes griping, is mitigated, by a clyster lenitive, or a potion of the decoction of Mastich, or with lukewarm water. 6. In persons abounding with melancholy, Catharticks ought to be mingled with lenitives and moistners. 7. Purgers, if they be given with barly water, do work little or nothing by reason of the absterfivive faculty thereof. 8. Super purgation is stopped with new or old treacle, & a grain or two of opium, mingled with three ounces of wine. Also with a crust of bread steeped in vinegar, and laid upon the stomach. 9. In the summer, purges are to be given with coole things. For the summer Heat calls the juices abroad, which the Medicine presently draws away. 10. Winters cold, because it wil hardly let the humors go, the habit of the body being compacted; declares that preparatives are to be premised, and cutters mingled therewith. 11. The Aire of the patients chamber, if it be too hot, it stops the operation of purging physick, by drawing the Humors into the circumference of the Body. 12. A Lenitive or gentle medicine must be taken a little before or after mear, least nature abuse the same by turning it into Nutriment. 12. After a purge is taken, the Patient must rest, that nature may embrace the medicament: and then a little motion wil do wel, to melt the humors, and that the expulsive faculty may be provoked. Some Physicians bid their patients sleep a little after a strong medicament, but not so after a weak one. 13. When you give a strong medicament, let the patient eat, three houres after the Physick begin to work: when you give the strongest purges of all, let the patient pais over the time of its operation without dinenig, for such medicaments need no spur. 14. If the patient cannot hold out, but during the purgation, be so hungry as to seem weakened thereby, let him drink presently after the taking his medicament a draught of broath, or bread moistened in wine. But thirst declares that the purgation is finished, by reason of some Consumption of the rosal moisture, pro-

vided it be not provoked with a light Catarrh, or the stomach be not naturally inflamed, and there be no suspician of any inflammation from the Medicament. 15. When the evacuation is ended, the Broath of a pullet may be given with sugar, to wash the Guts.

Point, III. Of provocation of Urine, Vomiting, and Sweating.

Diuresis, or Urination, is the drawing of Humors out of the Body by diuretick or urine, forcing medicaments duly administred.

You shal duly administer them. 1. If you give them in such diseases, as are evacuated by little and little. 2. If you give diuretick medicines properly so called in thick humors, those improperly so called in thick and adust ones, which by that meanes are made more fluid, taking heed of dry diseases, such as the Consumption, Madness, &c. 3. If you give them not in bodies full of humors, til the humors have been first abated by purgation, least by their thicknes and plenty, while they rush headlong into the narrow passages, they come to obstruct them. 4. If you give not sweet medicines to women, least they be drawn to the womb. 5. If the passages be neither inflamed nor exulcerated.

II. Vomition is the ejection of Humors upwards by vomitory Medicaments, conveniently given and applied.

Those Humors are, all cholerick, flegmatick and melanchollick humors, but those especially, which either reside in the Capacity of the Belly, or are contained in the spleen, hollow side of the Liver, or the Pancreas [Sweet bread] such as are thin and chollerick and of their own accord tend upwards, which is perceived by bitter belchings, paine, biting, and heaviness of the Midrif. Also some vomitings empty the whol body.

Vomitory Medicaments procure vomiting, either becaute they have an inclination upwards, or becaute they do as it were float upon the stomach and oppres the same, or becaute they loosen the upper orifice of the Stomach.

The Conveniency of preparation and application Requires; 1. That they be given to persons leane by constitution and habit, but not by sickness; provided they vomit easily, namely that they have a large breast, firme Head, and use not to spit blood, nor are in a Consumption, nor are subject to suffusions

suffusions in their Eyes, or to frowning or fainting fits. 2. That you be not hasty to give them to old people. 3. That you give them in the Summer, because then the Humors are carried upwards. 4. That the Vomit be so much the lighter by how much the Disease is more vehement; and so much the stronger by how much the part to be cleaned is far scituate in the body. 5. That no oyl be used in Feavers, because of the Relaxation of the stomach whole strength ought to be preserved in Feavers. 6. That you give them before meat in thin and choleric persons; after meat in flegmatick people, because flegm sticks fast in the body. Observe more particularly concerning Hellebore. That the body be free from all feaverishness. That the Patient be accustomed as it were to vomit for three, yea, & for twenty daies before, that he may not vomit to purpose, til the morbidick matter be digested. That the Hiccopping which is wont to arise in the middle of the vomitings with Hellebore, be stopped by giving the patient Mul-sack with Rue boiled in it. That it be given in a convenient Quantity. For a lesser dose than is fit, agitates the juyces, and disturbs nature, to no purpose.

III. *Sweating is an Expulsion of Humors by the pores of the Skin at the body over, caused by sudorifick Medicaments conveniently administrated.*

Touching the Medicaments observe. That they have a greater tenuity or subtilty of parts, than Diureticks have. That they cause swear, by turning the Humors into vapors, and thrusting them into the outer parts of the Body. That cold sudorificks work by an occult Quality.

Their convenient exhibition, is regulated by these precepts. 1. That choleric persons sweat not without trouble and inconvenience, because of the overgreat dissipation of their natural Heat. 2. Humors cannot be conveniently forced out of the Cavities of the stomach, Guts, Wombe, and the like, into the habit of the body. 3. The forces of the body being weak, are more impaired by sweating. 4. In old and cold diseases, as distillations, Palsies, Sciatica, Pains of the Joynts, Sudorificks are exceeding good. 5. They are to be given after universal purging, in the declination of a disease. 6. They are most of use in pestilential Diseases, nor is there then so much need to observe, either the time of the disease, or the strength of the Patient. 7. The Humor to be evacuated must either be

thin of it self, or it must be made so. 8. Plenty of morbidick matter must not be assailed by sweaters, least being carried unto the Skin, it shut up the smal pores thereof, and either breed or encrease putrefaction.

Article, 3. *Of the Removal of Causes offending in Motion.*

Point, 1. *Of Revulsion and Repulsion.*

The taking away of causes offending in Motion, contains under it *Revulsion, Repulsion, Derivation and Interception.*

I. *Revulsion is the convenient aversion or turning away of matter flowing into some part, into a part quite contrary.*

I. This Aversion is caused, either by Reason of Vacuum, by blood-letting, cupping-glasses and Horse-leaches; or by reason of Heat and pain, by dolorifick ligatures, strong frictions of the opposite parts, Clifters, Supplicories, hot washing, and vesicatories.

When I say that *Aversion* ought to be made to the contrary part, Observe. I. *That it must be made to remote parts, to difference it from derivation, which is to near places.* Where note, that those parts besides contrariety must have rectitude of scituation, not precisely mathematical but natural, in respect of the fibres and filaments of the Veins: also in respect of the fibres and veins which are remote from the part affected, and have communion with the part sending; also following the rectitude of the Diameter and scituation, in longitude, latitude, and altitude. II. *That the Contrariety aforesaid is, either in respect to the whol body, as when we revel from the Head to the Thighs or Legs, which is done in universal revulsions, from the right side to the left, or from the left to the right, which is termed particular revulsion.* III. *It ought also to be to its own beginning, if the same be known.* So in the inflammation

* See Riolanus Anatomy in English.

of the right Leg, we cut the left. The parts above the Claviculæ being affected, if it be already a Disease, and the matter flow in, the Cephalick Vein must be opened; if it be yet to come, the vein betwixt the Thumb and fore finger must be opened. The Parts between the Kidneys and Claviculæ being Affected, the Basilica Vein must be opened; if there be danger, its branches betwixt the ring finger and the middle finger. Both parts being affected, both above and below the Claviculæ,

Clavicular, open the Vena Mediana. For the Kidneys you may take your choice. The Ham-Vein, Ankle-vein and the Vena Saphena, exonerate the parts below the Kidneys.

Revulsion will be fitting and convenient.
1. If it be performed at the beginnings of fluxions unless they be lasting. 2. If by convenient places, least the matter be drawn through some noble member. 3. If the pain of the part affected be first mitigated, and the violence of the Drawing be less.

II. Revulsion, is a convenient rejection of the Influent humor, by repelling Medicaments.

The Rejection will be convenient, if you consider, *Whether or no, How much, and When.*

Touching *whether or no*, observe. That Repulsion is not to be used. 1. In the noble parts. 2. When the fluxion is near a principal part, least the matter being repelled, should be carried into the noble parts. 3. In parts which are situate too deep in the Body. 4. When a venemous and malignant matter afflicts the Patient. 5. When the matter is thick and clammy, least it become thicker and unapt to be resolved; when it is deeply seated, as in the Sciatica, least the blood be forced out of the neighboring and ambient muscles, deep into the connexity of the parts. 6. In case of a wound inflicted by a beast. 7. When the body is full of a redundant humor. 8. The humor being already impacted into the Part. 9. When there is a vehement pain. For then astringents, especially if strong, do cause the pain to increase, by exasperating the tunics, and by keeping in biting, footy vapors, and sharp humors. 10. When Nature acts aright, and drives the matter critically into some part. 11. When the bowels are affected, as in an impostume arising in an Emissory, least a symptomatical translation of the matter should happen.

Touching *How much*, know, 1. That the tender parts will not bear over strong repellents. Therefore in the Eyes we use only breast-milk, and Rose-water, in which sometimes poppey seeds are boiled, and the pap of Apples, &c. 2. In the Augment, repellents must be mixed with discutients, lest the humor grow hard, or be augmented, by stopping the pores of the Skin. 3. That cold & moist medicines are used, when the humor is thin & is seated in the surface of the body: when fluxions happen through the over hotness of the parts, and great heat or vehement pain afflicts the Patient. 4. Astringents are used, when fluxions are by debility of the

parts, and there is no vehement pain. The time of Repulsion, is the Beginning of a disease.

Point 2. Of Derivation and Interception.

Derivation is the convenient aversion of an humor falling into some part, unto the neighboring places.

That humor lies upon some part, that it is not yet shed forth of the Veins into the spaces of the part, but fluctuates up and down in the Veins.

Touching the *Conveniency* hereof, note, 1. We must not derive before the plenitude of humors be abated. 2. So much must be taken away, as the Patients strength will bear, and the disease shall require; which may be known by the change of color in the Blood. For so long it must be taken away, till it flow redder and yellower, till instead of red it come lead-colored. For the blood being flegmatick in the whole body, will be redder than ordinary in the side where there is an Inflammation: and that blood which is redder than ordinary in the whole body, will there through adustion be changed into black. 3. It must be practiced, before it be fastened in the part. 4. It is done by opening a Vein: by Note-medicines and sweezers, if the matter be in the Brain. 5. That the Communion of the Veins with the part affected must be observed. So in a Phrenzy, the Vein of the Forehead must be cut; in a Mamma or madness without a Fever, the Veins under the Tongue; in pains of the hinder part of the Head, cupping-glasses are fastened to the shoulders and shoulder-blades. When the Ears are inflamed, and when there are risings behind the Ears, a vein under the Ear: in hot diseases of the Gums, Jaws, Lips, in the Squinzy, the two Veins under the Tongue. The Armpits and Shoulders being inflamed, the Vein of the Head must be opened; the Womb, that of the Ham; the Legs, that of the Feet.

II. Interception, is a shutting up of the passage of Humors into any part, by convenient Medicaments. Those Medicaments are Repellers. For Interception differs not from repulsion, save only in the place of application. Repellers are applied to the part inflamed: interceptors are applied to the parts and waies, through which the Humor is carried. They are likewise called Defensives. Amongst which sacry and oily things are suspected. For they

they soften the parts, and if they stick on long, they heat the same. Therefore it is better to mingle intercepting pouders, with Rose-water and the white of an Egg.

Interception is then conveniently administered, 1. When the Interceptors are applied to the parts that have least flesh, in which the passages are most large. 2. When we apply such as are strong, where the habit of the Body is hard, the vessels large, and the season hot, which loosens and widens the passages; also where the Humor flows violently into the part. 3. If in contrary Cases, we use the milder sort.

Article, 4. *Of the Removal of Causes offending in place.*

Point, 1. *Of Softening and Discussing.*

The Removal of Causes offending in place, contains *Emollition, Discussion, Suppuration, and Attraction.*

I. *Emollition is the alteration of a thick & hardened Humor by softening Medicaments.*

An Humor is hardened, either by extraordinary or moderate driness; or by plentitude, or by Congelation,

The former is altered by things moderately hot and moist, least the force of heat should dissipate the Humor; the latter by opening the pores with an airy moisture: the last by things hot and moderately dry.

Medicaments exquisitely Emollient, applied to the principal members or parts near them, do bring the life in danger.

II. *Discussion is a convenient dissipation of an humor sticking in some part, and softened, by insensible transpiration, caused by diaphoretick Medicaments.*

It is called *Digestion and Resolution.* I added, and softened. For humors hardened cannot be discussed, unless they be first softened.

To convenient *Dissipation,* is requisite. 1. That it be undertaken, before the Body be evacuated. 2. That it be not used in such as have hot Veins and Livers. 3. That Dissipaters be used in the State and Declination, and that in the Augment they be mixed with Repellers. 4. That they be not biting, nor vehemently hot, lest the thinner parts evaporating, the thick become dried and hard as a stone.

Point, 2. *Of Suppuration and Attraction.*

I. *Suppuration is the convenient mutation of an Humor that cannot be discussed, into Quittor, by ripening medicaments.*

The *Conveniency* hereof requires. 1. That

it be chiefly practised when Blood offends; for Blood is best changed into Quittor; choler and melancholy hardly, by reason of that degeneration, whereby they raise Cancers and malignant ulcers. 2. That it be not rashly practised upon the internal Parts. 3. That among external parts, it be not practised about the Joynts. 4. That it be not overmuch or overstrong: otherwise it wil dispoite the part to a gangrenous Putrefaction.

II. *Attraction or drawing, is the convenient Motion of matter infused into a part, by drawing medicaments.*

These Medicaments are either more gentle, which are termed Rubifyers; or more strong, which are Bladder-raisers, Crust-procurets, and Causticks.

The Rules of *Conveniency* respect *Causticks,* and *Vesicatories* or *Bladder-raisers.* In respect of the former. 1. We must not come to Causticks, before we have tried Rubifyers and Vesicatories; for Causticks take something from Nature. 2. That they be then used when there is danger least the part should perish, and especially when there is fear least abundance of matter should putrefie the Bone. 3.

That when there is need of little burning, we are to use an Instrument of Brats; and an Iron one when we are to burn much. 4. That Consideration be had of the Age, Strength of the Patient, and the swellings whereunto they are applied; for many instead of the Kings-Evil swellings, have burnt the jugular Veins.

In respect of *Vesicatories* it is requisite, 1. That they be not applied to acute diseases, nor to external Parts exulcerated, nor to the region of the Lungs when they are exulcerated, because by them the ulcers are exasperated, or to gristley parts, and such as are bare of flesh, because by burning they grow black. 2. That after the flesh is swelled, the Cicatrized Part is become black and blew, the Patient is pained, we desist, least the part be stupified. 3. That before they be laid on, the place be rubbed til it look red.

Article, 5. *Of Expulsion of Wind, call'd Carmination.*

Carmination is a convenient dissipation of the Winds arising in mans body, by carminative or Wind-expelling medicaments.

That this dissipation may be conveniently affected, medicaments discussing winds, ought not to be administered before the matter be diminished; otherwise more flatulencies wil be raised, by rarefaction of the matter.

THE



THE
 FIFTH BOOK
 OF THE
 IDEA
 OF
 PRACTICAL PHYSICK.

Touching the Removal of Diseases.



Title, I. *Of the Diseases of Similar parts and their Cure.*

Chap. 1. *Of the Method of knowing and curing distempers without matter.*

So much may suffice to have spoken of the methodical removal of Causes, which ought to be handled a part from the particular consideration of the causes themselves: the general method for the removal of Causes follows, which must of necessity be jointly handled, with the prime differences of the diseases themselves; seeing it comprehends, not only the diseases but the Causes also, signs and differences of the diseases.

The primary and essential differences of diseases, are those whereby they are divided, into *Similar, organical, common.*

Similar diseases, are either of *distemper*, or of *hidden Qualities*. A *distemper*, is either *without matter* or *with matter*.

A *distemper without Matter*, is a *declination of the temperament of a mans body*, from its *natural constitution*, induced by *certain causes proper for such an Effect*.

By *temperament* you must not understand, that which is called *temperamentum ad pondus*, wherein there is equal proportion of the qualities: but that which is termed *temperamentum ad justitiam*, wherein the qualities are not in equal, though in a well ordered proportion, which is convenient for some kind of actions.

The *Signs* are taken from the differences. The *Causes*, are principally external; of which in the same place.

The Cure is performed by *Alteration*, if you precisely consider the distemper it self, but this disease does not long last without matter.

'Tis divided into four sorts.

I. One is *hot*, in which heat abounds. 'Tis known from such things as may exhalt and encrease sweat, and from such as are the Effects of Heat so encreased. It arises chiefly from five things, viz. Motion of the Mind and Body, Putrefaction, The nearness of some hot thing, the mixture of something that is hot, and stoppage of the Body. 'Tis cured with cooling medicaments, whether *simple* or *compound*, taken in, or outwardly applied. Where we observe. 1. That alterations consisting of heat and cold, are most easily cured. 2. That an hot disease in a Body which is naturally cold, must be vanquished, by remedies that are strong. 3. That cold medicaments have four degrees.

II. Another is *cold*, in which cold exceeds. 'Tis known from causes which induce cold, and symptoms, which follow the same. It arises from such things, as either are of their own nature cooling; or suffocate the innate Heat; or overwhelm, or dissipate the same, or withdraw its nutriment. The Cure is undertaken, by heating its medicaments, first such as are *more gentle*, afterwards the *stronger* sort. See the Medicaments in the Institutions of Physick.

III. Another is *moist*, when moisture overcomes. It is known by the antecedents and consequents. It arises from the neighbourhood of moist things, and which hinder the transpiration of most evaporations. 'Tis cured by *drying* Medicaments.

IV. Another is *drie*, in which dryness prevails. 'Tis known, by former kinds of signs. It springs from contrary Causes, viz. Alteration of dryers, and overmuch resolution and and paucity of aliment. 'Tis cured by *moistners*.

V. Another is *compound*; that is to say, Hot and dry, or Hot and moist; Cold and dry, or cold and Moist. Of which we need not to say much. For it may easily be gathered what it is, and how to be cured, from the simples.

Chap. 2. Of the diseases of Distemper with Matter.

A *Material distemper*, is the irregularity of the natural temper of Mans Body, by the presence of some morbifick matter.

The Signs will be known from the following differences.

The Cause is, a preternatural Humor, and that is. 1. Either collected by little and little, either through weakness of the part, or fault of the Nutriment. 2. Or *affluent*, either by attraction: or by reason of transmission, either from the whol body, or from some certaine parts.

The Cure is perfected. 1. By alteration with Contraries, if we consider the disease, 2. By evacuation, if need be, and that by blood-letting, if a Plethory be offensive: by Purgation if Cacoehymia or badness of humors offend; by sweat, if the matter tend to the skin: by vomit, if to the upper parts: by diureticks, if to the Urinary passages. III. By opposite diet.

'Tis divided into so many distempers, as the material.

I. One sort springs from *blood*, or a *plethorick* Constitution of Body, when such humors as are fit to nourish the Body, abound &c. 'Tis known by weightiness &c. It arises from good Nutriment &c. 'Tis cured, I. By *Blood-letting*, II. By alteration with coolers and moistners, especially such as are appropriate to the Liver. 'Tis divided two manner of waies, 1. One sort is from an *exquisite plethora*, to which al the precedent notes agree. 2. Another is from a *bastard plethora*, wherein the cure requires purging likewise. 3. Another springs from a *plethora ad vasa*. Another from a *plethora ad vires*, of which we spake before.

II. Another kind springs from excrementitious choler, which is hot and dry. 'Tis hardly cured, if it proceed from the yellow choler. Never almost, if it proceed from leek colored, eg-yolk-colored, or verdigreise-colored choler &c. The Cure is performed, 1. By alteration with cooling and moistning medicaments, and if it be very thin, with thickness; if thick, by cutters. Among the former the chief are, *Stalks of Italian Lettices*, flowers of water lillie, Porcelain, Plantain, Tamarinds, Jujubees, red poppy, among the latter, the chief are, roots of *Cichory* & *Dandelion*, *Sorrel*, & such things as are made of these, *Spirit of vitriol*, *Salt*. 2. By evacuation, either by bloodletting, when cholor is mingled with the blood, or by purgation by stool, with cholagogues. The chief cholagogues or choler purgers, are *Rhubarb*, which is neither to be given alone, because it is subject to fume, nor to such as are troubled with the strangury; *tamarinds*, *aloes* *rosata*, which is taken only in puls. *Syrup of the*

the flowers of *Acacia*, or *Roses solutive*, which must not be given to women with child, *Pils of Ruffe* &c. By a cooling and moistening diet.

III. Another is from preternatural *flegm*, which is cold and moist. 'Tis cured, I. By alteration with medicaments hot and dry, attenuating and cutting. Where note, that we must at first abstain from very hot things, lest the matter being dissolved, should swel with greater motion, and that the thinner parts being consumed, the thicker should remain; We must avoid strong openers in a woman wth child. The strongest of all are *Lignum guaiacum*, *China root*, *Sassafras*, *Sallaparilla*, and *Oxymel Scylliticum*. Hot stomach medicaments are to be interposed, because the stomach languishes through overmuch heat. II. By evacuation with *Pbelgm purgers*. The chief among those indifferently strong, are *Mecboacanna*, of which Lozenges are made; it works most effectually given in powder; *Carthamus seeds* and *Agarick* trochisked. Among the strongest are *Jalap* roote, given with Cream of Tartar, Syrup of Coloquintida, and the Pils of Sagapenum of Horstius. The Golden spirit of *Rulandus*. III. By blood-letting, provided the Heat be not dissipated, being expressed with flegm; and that there be a plethora. IV. By an heating and drying diet, let the Aire be hot and dry, the meats seasoned wth spices, let strong wine be used, the body being first purged, Frequent use of *Cappars*, with wine and raisins.

IV. Another sort comes from preternatural *Melancholly*, whether thick or dilute, or degenerating into black choler. 'Tis cured, I. By alteration with heaters and dryers, provided it be not black choler. The roots of *Eryngos*, *Lycorize*, the Herbes of *Ceterach*, *Baume*, *Dodder*; Flowers of *borrage*, *tamarisk*, *Cappars*, the cordial flowers. Syrup of sweet smelling Apples &c. Avoid *Vinegar*; and if it must be used, give oxymel, and a decoction of Citron peels. II. By evacuation with *Melinagogues* or *melancholly purgers*. The chief are *Polipody*, *sena*, *Extract of black bellebore*. The diet must be heating & moistning. The Aire must be tempered, with a decoction of *Mallows* and *violets*; let the patients meates be boyled rather than rost, *Egs*, soft-boiled, flesh of henns, calves, partridges; corants, a temperate bath of fresh water, &c.

V. Another Sort comes from *Serum* or the *robeyish humor*, which is a thin and Salt liquor by its abundance and quality altering the body of man. 'Tis cured by evacuation with

hydragogues, sudorificks, Diurticks &c. The chief *Hydragogues* are among the indifferently strong, the tops of elder when they first shoot forth, dried with a gentle heat; an emulsion of the stones of elder-berries, *Orice* root. Among the strong are, *Gambogia*, *Jalap*, *Extract of Elatery*, conserve of *Etula*, pils of *Sagapenum*. The chief *sudorificks* are, *Spirit of dwarfe elder* and of elder; *Salt of Gentory*, of wormwood, of *Ash*, of *Scabious*, *Harts horn* prepared, *Antimony diaphoretick*, *bezoardicum jovial*. Among diurticks are the diuretical liquor and syrup of *Rivius* in *Renodeus* his dispensatory, *Salt of Urine*, *Amber*, *beanes*, *Spirit of Salt*, liquor of tartar *Vitriolated*, half a scruple, compounded with half an ounce of *Cinnamon water*, and two ounces of *julep of roses*.

VI. Another is compound, springing from some of these humors, mingled together. In the Cure we must so work, that we resist chiefly those humors which most of all exercise their efficacy upon the body, not neglecting the rest either within or without. This will be done, when the veins are free from the obstruction, all the passages of the body open, the humors not being much distempered, and the noble bowels of the Body not diseased. Here *panchymagoga* or *al-humor purgers* are to be used, and the Imperial pils of *Fernelius*; which may be seen in the London Dispensatory.

Chap. 3. *Of Diseases springing from Hidden qualities.*

Diseases, from hidden Qualities, are diseases springing from Causes which work, by a malignant and venomous force, which cannot be judged so spring from the manifest qualities of natural bodies.

The Signs are, when a disease has rare symptoms, great ones, and such as are not to be seen in other sicknesses, no not of the same kind. When there has preceded some suspicion, either of some great degree of putrefaction arisen in the body, or of infected aire, or of contagion: or of poison, either taken in, or communicated from without.

The Cause is various, as shal be explained in the differences.

The Event of the cure is judged of, from the greatness of the cause, nobility of the part affected, vehemency of symptoms, and the Deaths of many persons. It is undertaken, I. By ridding away the poison, which is done

bb 2 divers

divers waies according to the differences of poisons. II By administration of *Antidotes*, both common and appropriate to every part of the Body; where nevertheless, we must not forget the manifest qualities. This is an approved antidote viz. *An Electuary of Masterwort Roots, of sweet Angelica, of Gentian, of white thistle, of each two handfulls, terra sigillata six ounces, Myrrh an ounce, Venice Treacle four ounces; Rosemary, Rue, of each one handfull; Birthwort three pound, Bayberries one handfull: virgin bony clarified a triple quantity to all the rest. Makeal into an Electuary according to Art.*

The differences are taken from the Causes.

I. Some spring from *internal Humors*.
 II. Others from *infected Aire*. The Cure consists in prevention of such aire and avoiding the same. In purification of the infected aire, respect being had to the Cause of the Infection. By giving of *Alexipharmaca* or *Antidotes*, by which the Heart may be defended, and the malignity driven away by sweat.

III. Some proceed from *water*. For there are certaine metalline fountaines, envenomed, either naturally or by some occasion, yea and drinking of water, has brought many into the dropsie, and the scurvy is caused by corrupt water. Such fountains are to be avoided: and faultly waters must be corrected, by boiling, straining, putting in barley flower or Garlick, &c.

IV. Others come from *Contagion*.
 V. Others from *Poisons*, whole Cure is doubtful, if present poison be taken in, and that in great quantity. Impossible if the poison cannot be expelled, neither by vomit, stool, nor sweat. Respects, 1. *Expulsion* by *Alexipharmaca* or *Antidotes*, which differ according to the varieties of poisons. 2. *Evacuation*, especially by vomit, that those medicaments may better penetrate unto the Heart. 3. *Prohibition of Sleep*, least the poison should thereby peirce the sooner into the Heart and inner parts. The Differences are many. I. Some are poisons taken into the body, which are cured by a gentle vomit made of fat things. By *purgation*, if it stick in the upper Guts. By *Urine*, if it tend to the urinary passages: and in all medicaments be sure to mingle *Antidotes*. By *Diet*, in which case, *Milke* is exceedingly commended. II. Others are externally applied to the body, whose Cure consists in *extraction* or pulling out the said poison, both by drawing medicaments

and by such things as do it by a certain likeness, which must be continued, til the evil color pain and symptoms shal cease. *Interception*, which is excellently performed, by binding somewhat very hard upon some part above the place affected. Use of *Alexipharmaca*, if the Poison have peirced into the Body; as, was said before.

Title, II. Of organical Diseases.

Chap. I. Of Diseases of Conformation.

An organical Disease is the deviation, or swerving of the parts of Mans Body from their natural structure.

Now because to the said Natural structure Conformation, Number, Situation, and Connexion are requisite, therefore there will be so many differences, and to this title four heads are subjoined; and also because in Conformation or Shaping, three things are required, viz. *Figure, Cavity, and Surface*, there will be consequently so many diseases.

Article, I. Of diseases of Figure.

A disease in Figure, is the swerving of the parts of Mans Body from their natural figure, depending upon certain peculiar causes.

The Signs are evident, so that it is needless to speak of them.

The Causes, are whatsoever may violate the figure of our bodies either by compounding, or loosening, distorting, or exhausting.

The Cure is not difficult in such as by reason of the Humidity of their bones are yet in a growing condition. It is hardly to be attempted in persons grown up, in whom the bones, whose figure the external parts do represent, have attained greater hardneis and dryneis. It is performed, 1. By handling and working the part the contrary way, 2 By binding with swathes and splints. It may be repeated, if the former succeeded not, if the hurt be very great and the sick man lusty: and that by breaking of the Callus emollients being premised. It ought not to be repeated, if the patient be old, the hurt Lets, and the Callus hard.

The

The differences are from the times of *swerving* of the parts.

I. Either it happens *before the Nativity* in the womb, and then the fault is in the shaping faculty, and it is hardly cured.

II. Or *in the birth*: and then, either the Infant was too great, or the Orifice of the Womb too strait.

III. Or *after the Birth*: where the chief fault is *overmuch repletion*, which must be cured with Evacuation; *Defect of Nutriment*, which requires meats easie of digestion, of good juyce, and of little Excrement. See the chapter of Atrophia, *Violent motion*, either caused by the patient himself, or by the Artist, in which case, fractures of Bones do chiefly happen. *The setting of one part upon another*, either by reason of the Resolution or Convulsion of the Nerves; in which case we must have respect to the disease it self of the Nerves.

Article, 2. Of Diseases of the Cavities.

Point, 1. Of Diseases of the Cavities consisting in Excess.

Diseases of the Cavities are those, wherein the natural passages of the parts are hurt. By Cavities or hollow Receptacles, we understand both those large Capacities of the Stomach, Brain, Heart, and Womb: as also the passages of the Veins, Arteries, Ureters, &c. and the Orifice or Head of the Vessels and all Cavities whatsoever.

And because the Cavities are hurt, either by way of *excess*, or in *defect*; the diseases of the Cavities are divided into such as consist in *Excess* and such as consist in *defect*.

Diseases of the Cavities in Excess are, when they are greater than naturally they ought to be.

The SIGNS shal be set down, when we come to speak particularly of them.

The CAUSE is, what ever is of tendency to open, or distend, or fret, and divide the Cavities.

The CURE is performed by *Stopping*.

They are divided into *Anastomosis*, *Diapedesis*, and *Diaresis*.

I. *Anastomosis* is when the mouths of the Vessels are too much opened and widened. It is known by a plentiful shedding forth of such humor or matter, which ought to be contained in the said Cavities. It arises from such things either external or internal, which

are apt to loosen, or distend. The Cure tends to shut up, by *astringent medicaments* (of which in their place) and has an Eye withal to their Causes. The chief astringents are, *Leaves of Shepherds-pouch*, seeds of *Purflane*, flowers of *Balaustians*, *final Daisies*, *bole Armeniack*, juyce of *Slower*, *new Treacle*, powder of *Mans Bones*, *Crocus Martis*, &c. As for the differences, 1. Either it springs from an *External Cause* as opening medicaments; and then the causes preceding must be removed. Or, 2. from *plenty of Humors* especially *blood*, burthening the faculty; and then the signs of those Humors are present. We must go to work, with blood-letting and purging. 3. Or from the *Quality of Humors* provoking the faculty; and then their signs are present. Evacuations being premised, we must use astringents.

II. *Diaresis* is, when the Vessels are divided. 'Tis known by plentiful efflux of matter with pain. It arises from causes which corrode, distend, or break. The Cure requires conjunction or soldering by astringent Medicaments. The differences are taken from the Causes. 1. It is either from *external Causes*, viz. vehement motion, heavy weight, exclamation, leaping, contusion, wounds, sharp & thick medicaments. 2. Or from *sharp biting humors*, and then the signs of a choleric or salt humor are present. The Cure consists in alteration by cooling medicaments and such as blunt the sharpness of Humors; by evacuation with choler and water-purgers, &c. and by a cooling and mitigating diet. 3. Or from *plenty of Humors*, in which case, the Cure is the same with that in the Anastomosis. 4. Or from *Winds*, and then the signs of wind are present, viz. stretching without weight, wandering pain; the Causes engendring winds were precedent, the disease arose on a sudden, the Urine is full of bubbles, &c. The Causes are, plenty of moist diet, weak heat, which cannot digest the matter. The Cure requires, that the Cause be evacuated; that winds be expelled by convenient Medicaments. *White Amber* is commended in this Case, *old Treacle* also and *Mithridate*, *Electuary of Bayberries*, *Conterve of Sage*, *Spirit of Turpentine*, *Oyl of Fenel Seed*, *Anisseed*, *Powder of Citron Peels*, &c.

III. *Diapedesis*, when the Vessels are rarified: 'tis known, by an over plentiful sweating forth of Humors. It arises from rarifying and moistening Causes. The Cure respects the Causes.

Point,

Point, 2. Of Diseases of the Cavities in Defect.

Diseases of the Cavities in Defect are, when the Cavities are rendered more straight than is fit.

The SIGNS you shall meet with in the particulars.

The CAUSES of this straitness are Obstruction, Constipation, Growing together, Compression, Falling-in, of which in the Differences.

The CURE requires the Removal of this Straitness, which varies according to the variety of Differences.

As for the differences, under them five things are contained.

I. Obstruction, which is nothing else, but the shutting up of the passages by Humors or other things. It arises from Humors and things wholly against nature, &c. 'Tis cured by convenient application of deobstructive medicaments. 'Tis divided according to the Causes, 1. One sort springs from multitude of Humors; and then Diet is the Cause. Evacuation helps this sort, which must be large, if the Humors be many, having respect to the places. From the Chest by Coughing, from the Stomach by vomiting, from the Belly by Stool. 2. Another from thick and clammy humors; and then we must use absterfion, cutting and attenuating: sometimes absterfion alone will suffice, if the Cavity be open. The medicaments ought to be strong, when the viscosity of humors is great, and the place remote; more mild, when the Cause is contrary, and alwaies appropriate unto the parts. 3. Another is from Stone, Worms, Quittor, Dung, of which we shall speak in its place: and then we must use all Evacuations, either at once, or at divers times. And respect is to be had to the place in which the humors are lodged. 4. Another sort is from clotters of Blood, then we must use medicaments which dissolve blood, such as are the Magistery of Crabs-Eyes, Pouders of Rhubarb, Tormentil, Sperma ceti not rancid, &c. You have cutting and deobstructive Medicaments, above in the third Book. The principal shall be specified, in the Cure of particular obstructions.

II. Constipation, when the passage is shut up, by flesh or a tumor bred in the cavity. It arises from a Catuncle, Membrane, inflammation, Tunicle, Pulp; which must be concocted. The Cure requires consumption and evacuation of the matter.

III. Coalescence, is when the walls or sides of the passage grow together, after an ulcer or wound. It arises from flesh growing to the Cavity, from a scar, &c. The Cure requires breaking.

IV. Compression, when the passages are stopped by causes incident from without, which force together the sides thereof. It arises, either from external causes as cold and dryers, where loosening and moistning things are good: or flesh Tumors or Bones, removed out of their places. The Cure requires their Removal, and has an Eye to the diversity of Causes.

V. Falling in, or falling down, when the passages are straitened by the looseness and falling together of the sides. It arises from over great moisture. 'Tis cured by dryers.

Article, 3. Touching Diseases of the Surface.

Diseases of the Surface are, when the parts decline from their natural Constitution, in the second Qualities.

The chiefest of them are Roughness and Smoothness.

I. Roughness, is a want of that Smoothness which ought to be in a part. It is caused, either by addition of a Surface in the solid parts, as in fractures certain scales are seen; and there is need of fetching somewhat off, by absterfion Medicaments: or by taking away, and then sharp things both external, as vapors, Winds, Fumes, Meats, venomous Medicaments; and also internal, as over dryness of the parts when their moisture is consumed, bitter cholera, salt flegm, &c. In the Cure we must fill up, that which was hollowed, the acrimony of humors must be tempered, and the parts not yet affected must be defended. We must goe to work with moist and clammy medicaments.

II. Smoothness, is a defect of that roughness which ought to be in a part. 'Tis cured with absterfion medicaments, which have withal some astringion, that the tone of the fibres may be repaired; and the spaces in the surface of the part, being dilated by humors, may be again contracted.

Chap. 2. Of Diseases of Number.

A Disease of Number, is when there is a fault in the number of parts.

'Tis

'Tis divided into a Disease of number in defect and in excess.

A Disease of number in defect is, when a part which ought naturally to be present is absent. That part is either *Sanguine* or *Spermatick*, which is not regenerate or repaired in *Specie*: or *simple*, or *compound*; nor must it be the particle of a part, but a whole part. The *Cause* is, whatsoever either by way of efficiency or privation of matter, may cause the want of any part. The *Cure* points us to *Restitution*, which is made only by nature; the *Physician* mean while, preserving the strength of Nature, by defending the natural Heat; by supplying fit matter thereto, viz. blood; and by removing impediments, that is to say, *Flesh* and such like things. As for what concerns the *Differences*. Either the fault is *original*, or through defect of matter necessary to generation; or through the weakness of the natural faculty, which ought to attract, retain, and elaborate the matter; and so it cannot be restored. Or after birth: by cutting, gnawing, putrefaction, refrigeration; and the *Cure* is to be directed to its causes.

II. *A Disease of Number in Excess, is when there is a thing which naturally ought not to be present.* The *Cure* requires the removal of the said thing, which according to the variety of the things to be removed, must be variously left other parts be hurt, or that they may be hurt as little as may be; it is not to be applied to such things as do not trouble a man. If you consider the *differences*, The thing superfluous is either wholly against nature, as *Stones*, *Wormes*, &c. and then the *Cure* is to be applied to them: or some *entire substance*, which arises either through over great plenty of matter, and the weakness of the formative faculty in the first shaping of the *Child*, or by reason of of some vicious quality afterwards. In these *Cases*, the *removal* is procured by *Fire*, and hereunto belong actual *Cauteries*. *Iron*, whereunto belong all kind of sharp instruments. *Medicaments*, *Cauticks*, *Vesicatories*, &c. of which we shall speak in their own place, when we handle particular Diseases. A *Vesicatory Plaster* made up of one ounce of *Cantbarides* or *Spanish flies*, half an ounce of *Terpentine*, *Olibanum*, *Myrtle*, *Mastic*, *Camphire* of each one dram. *Oyl of Roses*, or *Wax*, of each a sufficient Quantity, is very much commended.

Chap. 3. Of Diseases of Magnitude.

Article; 1. Of Tumors.

A Disease of Magnitude, is the swerving of the parts of Mans Body, from their natural magnitude.

It is divided into a Disease of Magnitude increased, and of magnitude diminished.

Magnitude increased is a Tumor, which is a swerving of the Parts of Mans Body from their natural State, by increase of bulk.

The SIGNS are needless to recount; for if it happen in the external parts, it is perceived by the sight, if it be within, it either discovers it self by some external Sign, or by some other internal ones, of which when we come to the sorts. To increase of Bulk there is sometimes added *distemper*, if the matter exceed in Qualities, and communicate them to the parts. *Solution of Unity*, if the Continuity be loosened by fretting, or stretching. *Faults in the shaping*, either if the figure be corrupted, the Cavities compressed or obstructed.

The Causes are *Humors*, *Winds*, *solid Substance*, of which we shall treat in their Differences.

The CURE requires Imminution or lessening that which is overgrown, which if the parts be not *sound*, it is performed by the same medicaments, which are good in Number abounding; if *sound*, it is performed by lessening the Patients diet, digestion, discussion, &c.

The Differences are sundry.

I. One is from the *Humors* which is known by the signs of the *Humors*; it arises from *Blood*, *Choler*, *Flegm*, *Melancholick*, *Seriosities*, whether they be in the part by congection or affluxion; and whether they are included in a peculiar membrane or not. 'Tis Cured, and that with *Difficultie*, if it be suddenly diminished, and be not evacuated by convenient passages, if a *Fever* be raised, or the fever that was before augmented. The *Cure* varies according to the variety of the Differences. 'Tis variously divided. For, 1. Either it is from *Humors stirred up in the part*; partly through fault of the part, inasmuch as the concoctive or expulsive faculty do not perform their Office; partly of the *Aliment*, seeing it is vicious and such, as it cannot be overcome by the part, and such as affords great store of Excrements.

ments. And then the tumor is longer in breeding: does not take up so great room, no cause or sign of any fluxion went before. In the Cure we must have an Eye to *Alteration* and *Evacuation*; and the latter must be *sensible*, if the matter be plentiful, and the part thick; *Insensible*, if the matter be little in quantity, and soft. *Now concerning the Congestion of Humors, observe,* 1. That the matter which is Collected in the common cavities, being so increased that it can be no longer there retained, is poured back to the Cavities and particular pores of the Place. 2. That not only thick and clammy Humors, but also the ichors or thin Liquors, which separate themselves from the thick humors, are brought unto, and stick in the the part affected, especially when they grow cold, out of their own proper place. 3. Also it may proceed from a spirituous matter, whence it is, that a part being weakned by a blow, does sometimes remain continually puffed up and swollen. 4. Also that putrid humors are collected, and hence it is that there wil be smal risings in ulcers. 2. Or it is from *humors that come into the part from some oiber place*, either by Attraction caused by Heat or pain; or by Transmission, either from the whol Body or some parts. Then the signes are contrary to congestion. There was no pain in the part, if it came by Transmission; there *was*, if it happened by afflux. In the Cure we must respect, both the *continuing Afflux*, and the tumor which is in breeding, where *evacuation* has place, either by blood-letting or purgation. *Revulsion* to the contrary. *Derivation* to the near parts. *Repulsion*, *Interception*, &c. and also the *Afflux* already performed, where the same remedies are useful unless the matter be forced and fixed into the part, which must then be softened and ripened. 3. Or from *humors shut up in particular membranes or Bags*, where the humor is turned in a manner into another substance. 4. Or from *malignant humors*, where the signes of Malignity are present.

II. Another proceeds from Winds, which is hereby known, that there is no heaviness felt, though there be sometimes paine, and the part is sometimes greater, sometimes lesser. It arises from causes ingendering wind, and winds are multiplied and collected either under the skin and about the membranes of the muscles, in the pores themselves of the similiary parts or in the membranes of the bowels or in their cavities. It is cured and that with diffi-

culty, if it be contained in the Muscles, because the flatulent spirit is disposed in all their parts restrained and shut in by the ambient membranes. It is nevertheless cured by *evacuation* of the matter, *discussion* thereof, and *Roboration* of the part.

III. Another proceeds from *solid parts*, whether they be bones fallen from their own into another place; or soft parts removed out of their place; or arteries, or veins: of which we shall treat in their proper places.

IV. There is another which is *taken away by invisible discussion*; and then the matter is neither much nor thick; nor deeply situate, nor shut up under a thick and compacted skin. The Body is not impure. Nature is strong: the member growes lighter: the troublesome pulsation ceases.

V. Another, is term inated by *Suppuration*; and then the matter is more plentiful and thick; lying in a deep place under a thick skin; while quittor is making, a paine and palpitation in the part together with a fever, afflict the patient: when the quittor is produced, the heat is diminished, the paine eated, the tumor becomes pointed, and begins to be soft and white; the quittor may be felt under a mans finger flowing this way and that, unless the part be thick, or it lie deep.

Another by *Induration*; and then the matter is clammy and hard, natural heat strong, the tumor it self diminished, and the Hardness is increased.

Another by *Corruption*; and then the part appears lead-colored and black, and the heat and paine are diminished.

Point, 1. Of an *Imposthume*.

Two things follow a tumor which proceeds from Humors, viz. an *Imposthume*, which is sometimes attended with a *Cavity*.

An *imposthume*, is a collection of purulent matter or quittor in the *Cavity* of of some part proceeding from the *Humor* which causes the swelling.

The *Subject*, is the parts and their Cavities.

The *Signs*, may be fetcht from the third difference of tumors arising from humors, where the business of suppuration is handled.

The *Cause* is the *Humor* it self, which natural heat ripens and turns into quittor. Hence it is various according to the variety of the Matter. The

The Cure, has respect to two certain times or seasons.

I. When quittor is in making; and then we must act, 1. By *anodynes* and *paine-allwagers*. Oyl of worms is exceedingly commended. 2. By *Ripeners* and that *temperately hot and clammy*, in hot tumors, and soft and moist bodies; such as *sweet oyl, wheat flower, milk, crummy part of wheaten bread*: with such as are yet *hotter*, in cold tumors, and cold Natures and parts; such as *terpentine, fire-rosin, larch-rosin, pine-rosin, figs, raisons, diachylon simple*. II. When quittor is made; where we must go to work with. 1. *Evacuation*, either *Insensible*, which is dangerous not only where there is great quantity of matter, for feare of hardning the same, but in al cases, by reason of accrimony, which may be increased by delay. Or *sensible*; and in this case, the *Imposthume* must be opened; either by more benigne medicaments, amongst which are *Diachylon simple* with *mustard-seed figs*, and *salt*: or by stronger, that is to say, *potential and actual Causticks*. 2. By *Cleansing* with *detergents*, viz. *Juice of smalladg, of Centory, round birth-wort, wormwood, Betony, Agrimony &c.* 3. By breeding of flesh with *Sarcotick* medicaments. 4. By *covering all with a scar*, by *Epulocick* medicaments, among which is *Emplastrum Diapalma*.

In respect of the *Differences* they are many-fold.

I. Either it is from *Blood*, and then it is easily ripened, and being ripened it affords laudible quittor. Or from *other humors*, which arises with difficulty, has somewhat in it like quittor, green and yellow.

II. Or it is *pure and simple quittor*, like either to *pap, bony, suit, oyle leas, and wine dregs*, and sometimes mixed with many other things.

III. The *Imposthume* is either in *fleshy parts*, and then it is easily changed into quittor; or *near the joints*, in nervous and weak parts, which have little Heat in them; and then it is ripened with difficulty.

IV. Either the quittor flowes up and down in the *Cavity*, and is gathered into the receptacle thereof, or it is shut up into a peculiar membrane and bag.

Point, 2. Of the Hole in an *Imposthume*.

The *Sinus*, or *holly hole* in an *Imposthume*, is

when the quittor diffusing it self in the depth thereof, the neighboring skin does not cleave to the flesh beneath it

The *Sign* is the going before of an *imposthume*, and tents, by which it is best of all searched.

The *Cause*, is the quittor it self, which being kept in far below, does make by its acrimony coney holes as it were, and draws together the excrements of the whol Body.

The *Cure* is *impossible*, if it have collected a *Callus* and *hardness*. *Doubtful*, if much and unconcocted matter is voided forth, & pain felt in the Hole. *Hopeful* if little quittor, good and white, come forth, and there be no pain. 'Tis performed, I. By *Evacuation* of the quittor, which is done either by *bare cleansing*, if the Hole tend downwards, with *barly water, melicratum* or *mead*, and wine sod with *hony*: or by *Opening*, so that either the whol cavity be cut asunder, if it be final; or only the lower *Orifice* if it be great, and the part cannot be cut without danger. II. By *production* of flesh with *Sarcotick* Medicaments, where note. That an excrement must be removed, as well if it be thin as thick, least it stick in the Ulcer. Most with the dryer sort, as *Orobuzmeal, Orice root, Birthwort, Myrrh, Tutty, pompholyx*, in such as are dry; with the less dry, as *Franckincense, Barly meal, and Beant meal*, in such as are dry. If the hole be noe wide open, liquid medicaments are to be cast in by a syringe, and to be let alone a good while. By want of pain, and voidence of little quittor and well digested, we may guess of the foddering and growing together again of the skin and flesh, and by contrary signs of the Contrary.

As for what concerns the *differences*, either they are shallow and little; or deep and broad; Either *strait* or *oblique*. They tend either upwards or downwards, and that way the worst quittor is evacuated.

Article, 2. Of diseases consisting in Magnitude, diminished.

A disease of *Magnitude diminished*, is the diminution of the parts of mans body in their natural magnitude.

There needs no signs, seeing the disease it self is evident.

The *Causes* are, want of aliment; either because it is drawn away, or because the channel is obstructed. Straitness of the place in which a part ought to be augmented: sect-

ion, putrefaction, refrigeration, ustion : of which in their places.

The *Cure* is undertaken. I. By repairing the part with plenty of good nourishment, in which case drinking of wines, meats of thick juice, little exercise, indifferent rubbings, are useful. A *Dropax* or puchy medicament, of which see the *Pharmacopeia*. II. By regeneration, if a member be pluckt away, which is the work of nature alone; only let the Physician remove the impediments, &c.

Chap. 6. Diseases in Situation.

A Disease of situation or connexion, is the separation of such parts of the Body as ought to be conjoined, and a conjunction of such as ought to be separated.

'Tis needless I should speak of Signs, because the disease is of it selfe apparent.

The *Causes* consist in those things by means of which the parts are fastened together, and touching luxation, we shall speak in the following Article. Now the connexion of such things as ought to be separate, comes to pass when the intermediate parts are loosned, or the ligaments broken, or wounded. The *Cure* requires the Conjunction of parts disjoined, and separation of parts conjoined.

And because luxations are most frequent of all the diseases of situation: I think it meet in this place, to treat of Luxation in General.

Article. 1. Of Luxation.

Luxation in General is the slipping of a joint out of its natural seat into another, whether by voluntary motion is hindered.

The *Signs* are, the unlikeness of the Member to it selfe as it was before, in shape and length; Motion hurt; pain, by reason of Compression of the Nerves, Muscles, and tendons; the swelling of that part, in to which the joint is slipt; the hollownes of that place from whence 'tis fallen.

The *CAUSES* are, all such things which are apt to stretch or violently to force; especially the laxity or solution of unity of the parts, wherein the joynts are contained, the Con-

traction of the Ligaments, &c. The *Cure* is more easie, in children and tott persons. 'Tis hard if there be great pain, inflammation, a wound, or danger of Convulsion. If the Luxation be old and hardned with a callus. If it happen in childhood, and be not cured. If it tend to a Consumption, through cessation of Motion and Compression of the Vessels. If the joynts hurt, serve but few different motions. If they are departed far from their Cavity. If the Erows or edges of the Bones are broken. 'Tis performed by Reposition or Restoring the joynt to its place, which requires, 1. Sufficient extension, whereby the bone is forced into its place, 2. Reposition with ones hand; or by common Instruments, or some deviled on purpose. 3. By application of astringent Medicaments, that Inflammation may be prevented. 4. By diligent binding, with swaths and bolsters. 5. By putting it into a gentle posture, and so that it may preserve its natural figure.

The Differences are sundry. For,

I. One tott springs from external Causes, a blow, a fall, violent extention before child-birth, and at the time of the birth: which ought to be prevented. Another from Internal, when an humor slipt into the Cavity of the Joynt, drives it from its seat.

II. One is Perfect, when the whol Joynt is fallen out of its place, which is termed *Ex-artbrema*.

Another is Imperfect, when the joynt is slipt only to the brim of the Socket, which is termed *Par-artbrema*.

III. Another is with Inflammation and Pain, in which case, the pain must first be mitigated, the Inflammation asswaged; lest by distention of the Nerve a Convulsion arise; and afterwards it must be replaced.

IV. Another is accompanied with a Wound which is the most dangerous, especially if the wound be nigh the Joynt, and an accute fever arise. Here, the Joynt, is forthwith to be restored to its place, if possible. If it cannot be restored, we must attend the Cure of the Inflammation to the seventh or ninth day.

V. Another is with a fracture, where the Joynt is first to be restored to its place, and the Fracture is to be cured afterwards: if it cannot be reposed, it is then to be restored, when the Callus is bred.

Title,

II. Another is with a *Distemper*. I. Either *hot*, which is known by Redness of the Flesh in the Ulcer it self. 2. By feeling of *Heat, Pain*, by reason of the acrimony and biting nature of the excrements. It arises from hot Air, too great a Quantity of Swaths and Cloaths, over-hot medicaments. 'Tis cured by coolers which are withal Pain-allwagers and binders, such as are *Plantane, Roses, Sanders, Sugar of Lead, Bole Armeniack, Turpentine* of *st wash* in *Plantane Water*. II. Or *cold* which is known, by the Whiteness, Lead-color'dness, and softness of the Flesh, in the Ulcer it self. It arises from cold Air, or such like medicaments. 'Tis cured not so difficultly, because the Ulcer and Distemper may be cured at one and the same time by Heaters, such as are *Oyl of St. Johns wort, Nard Oyl, Orice Oyl, Oyl of Rue*, to which may be added, Fomentations made with Wine. III. Or *dry*; which is known, by the hardness and dryness of the lips of the Ulcer, and the few excrements proceeding therefrom. It arises from like causes. 'Tis cured with difficulty, because we are forced to neglect the Ulcer, and sometimes, apply our selves wholly to remedy the distemper. For to moisten withal, *like-warm Water* is good. IV. Or *moist*, which is known by the Excrecence of Flesh, and the softness and flaccidity thereof. By store of Excrements in the Ulcer. It arises from like Causes. 'Tis cured, by strong *sarcoticks*, made of *Cyperus Root, Smiths dust, Hoar-bound*, first washing the same to cleane away the filth, with a lotion wherein astringents have bin steeped.

III. Another is with *Afflux of humors*, whether they come from the whol or from the part. 'Tis known from the swelling, which is seen in the lips and bordering parts; by pain, if nervous parts be affected; by plenty of Excrements, greater than the Magnitude of the Ulcer seems to require. It arises from Humors. 'Tis cured, 1. By *Repulsion*, among the remedies whereof, the chief place is ascribed to fontanels, if Ulcers are lasting. 2. By *Interception or defence*, to which intent the medicaments must be applied above the exulcerated part, towards the root of the Vessels. 3. By *Repulsion*, whose medicaments thereto subservient, must be laid upon the part affected. 4. By more vehement *Sarcoticks*. 5. By *Epuloticks*.

IV. Another is *Sordid*, which sends forth a thick and stotty Excrement, sometime with putrefaction and grievous smel, which is sometimes followed by a Sphacelation or a Gan-

grene. Now it is fordid or filthy, 1. Either by reason of the Humors: and then the lively color of the part is vanished. The Cure is performed by Diet; by Evacuation. By detersion with very absterlive Medicaments, among which Spirit of Wine, a decoction of Vetches, Oyl of Roses a pound, and Mercury Precipitate one ounce, boiled and mixed with other things, are commended. 2. Or by reason of *Unctious Medicaments*, and such as weakly dry; then the Ulcer appears white, and that whiteness goes about the whol Ulcer like a bordering of cloath. It must be cured with gentle absterlives. 3. Or by reason of *strong medicaments*, then the Ulcer becomes hollow, and grows every day more red than other; a smal quantity of thin and hot quitor flows forth. 'Tis cured with cooler and gentler Medicaments, as the Oyntment of *Diapompholygos*.

V. Another sort is *Lead-colored* which comes either from the Air, or by afflux of Humors. 'Tis cured by scarification; that the blood may be drawn out by application of dry sponges. By drying with strong Medicaments, viz. the *green water of Platerus*, and *Hartman* his water in his Chymiatrical Paradise, in the Chapter *De Oxena*.

VI. Another is *callous*, which proceeds from the use of over drying Medicaments. The Callus is removed by Emollients, or with corrosive Medicaments: but it must be warily removed in nervous parts, or cut off.

VII. Another is with a *Tumor*, which is known by the sight. It arises from Humors flowing in. It is cured after the manner of Tumors.

VIII. Another with *proud Flesh*. It springs either from abundance of blood; and then the Flesh is good conditioned. It is taken away, by fasting and application of dryers. 2. Or by reason of the weakness of Flesh-breeding and drying Medicaments. Then the Flesh is loose and spungy. 'Tis cured by *Lignum aloes* beaten, and dried on a raster, with spirit of Wine rectified, twice inflamed, and prepared. *Bartholinus* of *Causticks*.

IX. Another is *hollow*, when the quitor being overlong detained, eats it self holes and Convey-burroughs as it were. See the Cure in the fifth Book of the *Observation of Valeriola*.

X. Another has *Worms* in it, which breed there. It is known either by the Eye if the ulcer be wide; or by a preception of biting pricking pain, and a kind of motion. The Cure requires,

requires, 1. Their *drawing-forth*, if they are at hand. 2. Their *being killed*, by medicaments which take away putrifaction and moisture.

XI. Another is with *varices* or black-swelled veins which is known by the signs of varices. It cannot be *cured* unless the varices be first *cured*, and taken away.

XII. Another with *corruption of the Bone* Which is thereby known, in that the flesh above the ulcer is flabby and soft. The ulcer is frequently renewed, the sanies flows out in greater plenty than is agreeable to the largeness of the ulcer. The Bone is perceived to be uneven, if you put in a Probe. It *arises*, 1. From *external causes*, cold aire, incision, contusion, Sharp medicaments. 2. From *internal causes*, viz. Afflux of sharp humors to the Bones, pravity of the Sanies, manifest or occult &c. The *Cure is difficult*, especially, if the flesh be lead-colored; if the rottenness be near nervous parts, or in the joints, or about the Heads and tendons of the Muscles, or about the great Vessels. 'Tis performed, I. By *laying open the Bone*, either by putting in gentian root, or with a Caustick, or by Incision. II. By *removal of the Bone*, either by exceeding drying medicaments, among which Euphorbium is the best: or by Manual operation, if the Rottenness lie deep, and sudden cure be required: which is performed by shewing or rasping, with a scraping Instrument or an Augur. By burning, after which the inflammation must be pacified and Pain prohibited.

XIII. Another is with a *fistula*, which is nothing but a narrow and long Hole. 'Tis known by putting in of a probe, and the flesh round about, is white, dry and hard. It *arises* either from plenty of bad humors, or the unskillfulness of the Physician. The *cure is difficult*, if many parts be eaten and stetted, if the *Fistulas* be deep, winding neare the noble members. If they reach to the heads of the Muscles, the veins, arteries, Nerves, Bones, Joints, Chest, Belly &c. *Not to be taken in hand*, if the *Fistulas* be far from the noble parts; and if superfluous humors be purged out by them. *Palliative*, whereby, universals being premised; the *Fistula* is dried, with the water of Baths, of chalk &c. *True*, which is performed. I. By *premissing Universals*, under which *Vulnerary* portions are comprehended. Mercurial purgations are good in this Case. II. By *removing the Callus*, I. By *convenient medicaments* putting into the Orifice of the *Fistula* pencils made of sponge,

the pith of Elder, bryony root, gentian &c. when it is widdned, things are squirted in with a syringe, and they are liquid or dry. Such are, *Serpentary root*, *Centory*, *Fig-Ashe*, *Unguentum Apostolorum*, *Agyptiacum*. By *opening the Fistula*, which being done, the *Callus* must be taken off with a pen-knife, or with a red hot iron, the part being guarded with a desentative. III. By *Consolidation*, the filth being cleaned away, by *Centory*, *pimpernel* &c. As for what concerns the differences, 1. Some *have divers holes or Cavities*, and then more quitor flows out, than can be contained in one *Cavity*. 2. *Others have divers orifices* and then if the liquor squirted in by the syring, flow back through al, and if the humidity be of the same color, tis but one *Fistula*. 3. *Another terminates upon flesh*, then that which we touch with the probe is soft, and the quitor that comes forth is white. 4. *Another reaches to the nerve*: then pain is felt when we search it. 5. *Another bottoms at the bone*, and then that which we touch with the probe is hard. 6. *Another ends upon a Vein and Arterie*, and then if they be gnawen asunder, blood breaks forth: if not, a certain matter, like lees or dregs comes out.

Chap. 2. Of Wounds.

A *Wound* is the solution of Unity in a soft part, made by somewhat sharp and cutting, either by way of a prick or stab, or by way of a slash or gash.

The *Subject* is a soft part, and that either external or internal, &c.

There need no *Signs*.

The *Cause* is expressed in the definition.

The *Cure is none*, if the Heart be wounded, so that the vital spirits be dissipated, if there be a vessel in the Lungs; out of which blood being shed, overwhelms the Heart. If some great internal vessel be so hurt, that it cannot be shut up whereupon, blood being plentifully shed, the spirits are dissipated. *Doubtful* if the weapon were poisoned, if the wounded person be weak and full of bad humors; if an inflammation happen, in the inner more nervous parts, and such as have more exquisite sense, which is followed by an afflux of humors and sometimes by a Gangreen. 'Tis *difficult*, if it be joined with a Cachexy and dropsy, because overmuch moisture, hurts the cure. If it be purged out with difficulty. If it be complicated with other diseases. If it be in a part apt to receive a Conflux of humors. If it have

in it some extraneous thing, which cannot at first be drawn forth. If on the Critical daies (to which wounds are so far subject, inasmuch as they have in them some matter requiring Concoction) there is no change to the worse. If the wound be oblique or circular. If convulsion happen, or contusion be also present. 'Tis performed. I. By exemption of superfluous things. Where note, 1. Clotters of blood must be taken away only at the third binding, because by stopping the Orifice of the veins they hinder a flux of blood. 2. Those broken bones are only to be taken forth, which are perfectly free. 3. The weapon must be pulled forth, if the patient may live, when that is done. 4. That the weapon may be taken out, either by thrusting them along, if the passage be short, and neither bone, nerve nor veine prohibit; or by extraction, and both waies are performed, either with section or without the same; those things which cannot otherwile be removed must be brought out with drawing medicaments, nor must they be by any meanes left to Nature. II. By *conjunction of the Lips of the Wound*, where respect must be had to the manner of binding up, and to which belongs swathing, placing of bolsters, slipping, and the right placing of the part tied up. III. By *Digestion*, that the blood which flows out of the smallest veins, in the part wounded, and sticks in the pores of the part, may as soon as possibly be changed into quitor. Where observe 1. That in moist bodies vulgar moisteners must warily be used, least putridation being induced, the wound should turne to a sordid ulcer. 2. In dryer bodies, they are more profitable to correct the dryness. 3. That Digestives must be corrected with sarcoticks, and that we must not trust to one medicament. See the Medicaments which move quitor in the Institutions. This is the best: *Red clear terpenentine* and Gum Elemi of each one ounce and an half, Weathers greafe two ounces, old Hogs-grease one ounce. Melt all over the fire, and make a Liniment. 4. By *Conglutination of the Parts*, which is performed either by a medium of the same kind, in the soft and fleshy parts, in which plenty of blood, by strong heat is more easily changed into flesh; or by a *Callus* in the bones; or by a scar in the skin. Which is furnished by sarcotick medicaments; of which in another place; also by vulnerary porions, concerning which observe: That they are not to be used at the beginning, nor when external medicaments may serve the turn; and when there is a fever and Inflammation;

those things must alwaies be used, which are appropriated to the parts. Hecunto appertain, The *Vulnerary Balsom* of Hartmannus in his chymia, the *glutinary powder of Crabs*, *Balsam of Eare wax*, and *Rulandus* his balsam of sulphur. 5. By *averting the fluxion*, where we are to use, 1. *Blood-letting*, if the body be plethorick. If the blood did not issue out too much before. If the wound be great, and there be no inflammation caused by pain, 2. *Purgation*, if the body be full of bad humors, if the humors be thin, hot and choleric; least they make the blood apt to stir. If it be used at the beginning. If there be no fever withal.

The Differences of wounds are sundry.

I. One is of the *Vessels*, and that either of a *Veine* and then the blood issues more violently, and it is thicker, blacker and less hot: or of an *Artery*, and then the blood is yellow, hot and thin; the patients strength is much spent, by reason of loss of spirits; tis hardly cured, by reason of the hardness of the Arteries, their perpetual motion, and the force of the blood in them contained. The *Cure* calls for the stoppage of blood, which is performed 1. By joining together the Lips of the wounded vessel, either with a mans fingers or a swathe, by which means nevertheless, the blood wil hardly be stopped. By *stopping the Orifice* of the Vessel, either by application of ones finger, or by medicaments which stop blood. The *external medicaments* are, *Crepitus Lupi*, a kind of puckist or toadstool so called, *vitriol powdered* and put in a cloath, the powder of *Agricola* consisting of two drams, of *Sugar of Lead*, *White franckincense*, *red myrrb*; one dram of *Saffron* and *Campfire powdered*, wet with *Frogs-spawn water*, & dried at a gentle fire, put into the wound. *Internal medicaments* see in the Chapter of bleeding at the nose. 3. By *Revulsion* with blood-letting, divers times administered, or by *Cupping glasses*, if the patient be weak. 4. By *Interception* with intercepting medicaments, which ought to be applied to the vessels, by which the blood flows. 5. By *dissolution* of the blood after it is congealed and clotted, see the medicines above.

II. Others are of the *Tendons* which cause pain but not very great. They are less dangerous. They are cured as those of the *Nerves*, Of the whol tendon is cut asunder in the mids and then the motion is taken away: but if not, the motion is only weakened.

III. Another is of the *Nerves*, which are known from the writings of Anatomists, by their

their vehement pain, to which convulsion and inflammation are wont to succeed. They are cured with difficulty, by reason of following symptoms, especially, if there be no tumors. If appearing, they suddenly vanish. If the Nerve have conceived putrefaction, and that be communicated to the near and remote parts. In the Cure. 1. *Paine and Inflammation* are to be removed by blood-letting and purging. 2. The wound must be kept open that it may vomit out its Excrements. 3. *Temperate and drying Medicaments* of thin parts, must be applied, mostly hot, respect being had to the Constitution of the body and afflux of Humors. 4. The *intermediate parts*, must be fomented with oyl of white lillies &c. If you consider the differences. I. Some are caused by way of *pricking*, and then the kind of the weapon and the wound agree together. The Symptoms aforesaid follow. The Cure is hard because the disease is dangerous. Especially if it betide an impure body, and if the tumor arising, do vanish, and raving follow. It respects, 1. The purging of the body from vicious humors. 2. The allwagement of the pain, by anodyne Oyls, or Cataplasmes. 3. The drawing forth of sanies or corrupt moisture either by drawing medicaments, or by section *Cross-wise*, or by tents, yet so as that they touch not the nerves. 4. Application of thin medicaments, moderately heating, and drying, as balsam of Peru, St. Johns wort oyl, 5. Diet in which cold aire, wind, passions of the Mind and venery, are prohibited. II. Others come by *Cutting*, which happens, I. Either according to *longitude*, and then the paine is not so great, nor is there so great fear of Convulsion, seeing the fibres are not so affected. In the Cure, the Lipps of the wound are to be closed together with a swath band. The corrupt liquor must be suffered to have its egress, which is like sometimes to milk, water, whey, whites of Eggs. The foresaid Medicaments must be put in. The wound must be covered with a plaister of Diapalma, or some other. 2. Or *across* the Member, and then it is either cut quite in sunder: and then motion and sense are abolished without pain: or it is *not cut in sunder*, and then the pain is not so great; there are all the symptoms which may be in a prick. In the Cure stitching must be used, but so as not to hurt the nerve.

IV. Others are of the *Joints*, which happen in the Cubit, knee, and Joints of the fingers. They are, I. Either *without Luxation*, in which case the Cure is *Difficult*, because the Joints easily receive fluxions, and are apt to be

pained: especially, if they happen in the inner part, where the vessels are greater. It is performed. 1. By drawing the Lips together, so that an issue may be left for the quitor. 2. By preventing the afflux of humors, by evacuation, Interception, a tight situation of the Member. 3. By repulse of cold aire, by Cataplasmes and other things. II. Or with *luxation or disjoining*, where there is greater danger because of tearing asunder the nervous parts. Halting follows. In the Cure, the joint must not be restored; for death would then follow. With the wound you must proceed as with other wounds, the binding up, only excepted. The fluxions must be prevented chiefly by purgations and Sudorificks.

V. Others are with *Bruising* when a weapon is blunt, or heavy, or a man is beaten against somewhat. In the Cure you must have regard to, I. The *Contusion*, where, 1. Afflux of humors must be prevented by revulsions, defensatives and repellens. 2. The blood which is slowed in, must be changed into quitor, by medicaments not too moist, and Cataplasmes must be applied round about where the part is bruised. II. The *Wound*, which, 1. Must be cured with digestives, of rosin, terpentine, and yolkes of Eggs. 2. When quitor is bred, we must use absterision and consolidation. 3. If it wil not be suppurated, and there is danger of a Gangreen, we must Scarify &c. The *Differences* are taken from the parts. I. Either it is of the *Nerves and Tendons*, where the part must be fomented with discussing Oyls, made hot. If the skin be withal bruised, the paine is first to be allwaged, with the white of an Eg, mingled with Rosewater: then a while after, the part must be fomented with astringent wine luke-warme: finally, Cataplasms must be laid on, of Elme leaves boiled in oyl, or the *Athes* of vine spray with Hens-grease. If hardoes remain, Emollients and Digestives must be applied. II. Or it is of the *Ligaments*, where we must deal with heating and drying medicaments &c.

VI. Others are by *Gun-shot*, which are known by the very sight. The Cure is hard, if the Body be cacochemical. If the bones be withal broken. If they are made with a poisoned bullet. 'Tis perfected. 1. By drawing out the bullet, with fit Instruments. 2. By changing into quitor, what is bruised, with *Quercetanes* Ointment, P. 145. The balsam of *Parents* recorded by *Semertus* lib. 5. Of Wounds made by Gun-shot; so as to pre-

vent a Gangreen. 3. By absterfion with detergents, either stronger if there be much quittor, or milder. See *Quercetanus* Dispensatory p. 146. 4. By breeding of new Flesh, by Medicaments, which may be seen in the forenamed Author, and others. See besides *Ludovicus Botallus*, and others, *Quercetanus* his Treatise of Gunshot-wounds.

VII. Others are *poysoned*, either by an infected venemous arrow or other weapon, or by the biting of some beast: and then, in the wounded place there is greater sense of pain and pricking, and grievous symptomes happen. In the *Cure* we must thus proceed, as, 1. To stop the passage of the poyson to the inner parts of the Body; to draw it out by cupping-glasses or other medicaments; by moderate binding of the part above the wound; by cutting of the Flesh, unless it contain Nerves; by washing the wound, with Wine and Treacle mingled together; with Causticks, &c. By fortifying the Heart with external and internal Antidotes. 2. To cure the wound it self,

Chap. 3. Of Fractures.

A Fracture is the division of a Bone, by an external Cause, violently assaulting.

The SIGNS are, want of due motion in the member; bitter pain before the bones are composed; shortness of the member, by reason of the broken bone. The Causes are external; yet aptness to break, does proceed sometimes from the natural Constitution, sometimes from acquired rottenness, from the french pox, or some other Cause.

The CURE respects, 1. The Inflammation, if there be any, which must be in the first place removed, respect being had to the part, with repellents; lest the Humors should flow in. II. The Fracture it self, where note, 1. It must be extended, without any pain, or as little as may be: by one man if the lesser bones, by two if the greater be hurt. 2. They must be rightly placed in their proper places, so as the ends may sely joyn one to another, so that the Eminencies of the Bones may not be forcibly thrust into their Cavities, lest they should be broken. That if they break out of the Skin, they be handled after a peculiar manner. 3. We must see whether they be rightly placed and framed together, which is known by Cessation of pain, and that there is no cavity: that the broken part feels just as the whole, save that it is thicker

possibly, by reason of efflux of humors. 4. They must be *duly bound up*, which is then done, when a medicine made of the white of an Egg beaten with astringent pouders, is first laid on to prevent Inflammation. When the binding, is neither too loose nor too strait. It is then too loose when the Patient finds that he is lightly pressed, and the same night feels himself more strongly bound, and the day after a swelling arises in the extremity of the Member; if it be too strait the contrary signs follow. If it be not loosed before the third day. 5. The member must be rightly placed, that is to say; softly, lest it be pained; equally, that it may not be distorted; it must be somewhat raised, lest the Humors flow to it. III. The Body of the Patient, where if need be, blood-letting and purging must be used. IV. The Callus, and then meats of good juyce must be given. Medicaments which breed the Callus must be drunk down and applied, especially in grown persons, one dram of Osteocolla, with Comfrey Water. See *Aquapendent* and *Hildanus* in their observations. V. The Symptoms. 1. Inflammation whereto respect is to be had presently at the Beginning, nor is the part to be bound, or at least not so hard. 2. A Gangrene, which see in its proper Chapter. 3. Itch and Excoriation, which proceeds from sanies; where the Sanies is to be washed off, and afterwards *unguentum album Camphoratum*, *Rosaceum*, &c. must be used. 4. Pain, which either springs from the overstraitness of the Swath-bands, and then a swelling appears in the extremity of the part, and the sick Patient complains that he is extremely pressed. The swath-bands are to be loosed, and the binding to be made more easie. Or from a pricking bone; and then a pain arises from a light handling of the part. The Bone is either to be restored to its place, or taken out, or cut off. Or from a Confluence of Humors, and then 'tis cured like a beginning Inflammation. Or from an evil scituation of the Member, and then the Patient easily discovers the same; the scituation of the Member must be changed. 5. The Gracility or leanness of the member, and then either an over-thin diet, or long binding of the swathes, is the cause. Nourishment must be drawn to the part.

The Differences of Fractures are sundry.

I. One is *achwart*, so as the Extremities do not at all stick together. 'Tis known by this, in that you may feel the ends of the broken bone atunder one from another, and in the place of the Fracture a nonnatural Cavity is observed,



THE
SIXTH BOOK
OF THE
IDEA
OF
PRACTICAL PHYSICK:

Treating of External Diseases.

Title I. *Of the Several sorts of Tumors.*

SO much may suffice to have spoken of Diseases in general and of their cure. Diseases considered in their several sorts, are either External or Internal. The former are Tumor or Swellings, Diseases of the Skin, Diseases of the Hair, Ulcers, Dislocations or Disjointing, and Fractures: and therefore there will be likewise, just so many Titles in this Book.

Chap. I. *Of Swellings or Tumors Caused by Blood.*

Article, I. *Touching over-great Corpulency.*

Some Tumors spring from Blood, others from Choller, Flegm, Melancholly, from Watry and obeyish Humors, and some from

a Mixture of these one with another. Those which spring from Blood are, *Over-great Corpulency, Inflammations, Bubo's, Phyealon, Phyma, Furunculus, Parotis, Paronychia, Permion's, Ecchymosis, Carbunculus.* *Corpulentia nimia, is an over-great increase of the Bodies Bulk caused by too much plenty of Flesh and Fat.*

Signes are needles. The Consequences thereof are an Hindrance of the Motions and Operations of the body, shortness of breath, by reason of the passages being stoppt, sometimes suddain Death in such as grow Fat when they are young, Barrenness because of the seeds wantfulness.

The CAUSE is, the Increase of Flesh and Fat.

The CURE varies according to the variety of the Differences.

The DIFFERENCES are taken from the Causes.

I. One sort springs from *Encrease of Flesh,* which is *Caused* through plenty of good Blood,

Blood, made by a temperate Liver out of meates of good Juyce, the hot and moist temper of the Musculous parts of the Body, assisting thereunto. It is *Cured*. 1. By *Evacuation* through Blood letting, Cupping, Fasting, Eriction. 2. By *Consuming the Flesh*, with such things as strongly dry, and moderately heat.

II. Another from the encrease of *Fat*, caused by the Oyliness and fattyness of the Blood, falling out of the Veins into the Membranous parts, and there congealed by the moderate heat and Efficacy of the said parts. Tis *Cured* 1. By *Evacuation*, but it must be sparing, because such persons are apt to fall into cold Diseases. 2. By *Consumption of the Fat*, effected by things hot, bitter, diuretick; yet so as care be had, that by over much heating, another Disease be not Caused.

Article, II. Of an Inflammation.

An Inflammation is a Preternatural swelling of the fleshy parts, springing from blood which besides the intent of Nature flows into the said parts.

The *SIGNES* are, *Heat*, which is caused partly by reason of the Blood, partly by the stoppage of the pores springing from plenty and thickness of blood, which stoppage will not suffer the Fuliginous Vapors to exhale; and partly by the bloods putrefaction. *Pain*, both by reason of the distemper, and the solution of continuity, caused by plenty of blood, filling and distending the part. *Redness*, the blood communicating its color to the part affected. *Tension or Stretching*, because of the abundance of blood distending the whole substance of the Part. *Renitency or Tightness*, from the same Cause. *Pulsation* by reason of the distention of the inflamed parts, caused by the heaving of the Artery, which wants freedom of roome to move it self.

The *CAUSE* is, the plenty of blood, or its sharpness by reason of Chollerick Humors; which because they provoke Nature, they are by her thrust out, she using the blood as her Vehicle or Chariot to ride in, which flows plentifully to the part, by reason of its pain. The *Manner of its Breeding*, is this. An *Hot Fluxion*, causing the blood to fall into the Muscles, first the great Veins, then the lesser, then the least of all are distended. And when the fluxion can be in them no longer contained, it partly sweats through the Coats of the Vessels, which have also their pores; and is partly

sent out of the small Orifices of the Capillary Veins, which open themselves into the substance of the part, and shed into the empty spaces, which are between the first bodies or Particles; whence the parts gather Heat.

The *CURE* is performed. 1. By *Blood letting*, that more blood may not flow into the part. If we should presently fall to work with repellers, the matter would be carryed to another place. 2. By *Purgation*, because sharp Humors give occasion to the Flux. 3. By *Alteration* that the blood may be cooled and thickned, provided the Veins be not strait, and the Patient not troubled with obstruction of the Bowels. 4. By *Revulsion*, that the Humor may be drawn to a contrary part: which is then best performed by bloodletting, when the matter is much in quantity and violently moved; by other waies and means, when it is little; Yea, and in such a case, it may be done by *Repellers* and *Discussers*. 5. By *Repulsion*, with repelling Medicaments, either watry only, or withal restrigent. The *Former* are to be used. in thine Humors, seated in the surface of the Body, not much in quantity, Joyned with Heat; and of that sort are Houle leek Venus-navil, or Penny-wort, Violets and such like. The *Latter* have place in extremity of pain, where the Vessels are large, and the fluxion is caused through weakness of the parts affected. Chirurgeons frequently use the *Whites of Eggs* beaten together with *Rose-water*. 6. by *Interception* with *Defensative* Medicaments, which are sicly applied to such parts as are not fleshy, and through which the larger Vessels run. Oyl is judged improper to be mingled with these kind of Medicaments. 7. By *Derivation* of that blood, which has flowed into the parts. 8. By *Discussion* with discutitive Medicaments; amongst which, the *Gentler* are the Roots of Marsh-Mallows, and of white Lillys, Chamamel flowers &c. The *Stronger*, Orice Roots, Elder flowers, Gum Ammoniack, Bdellium, Bears Grease. The *Strongest of all* are Nitre, Sulphur, Lime &c.

The *DIFFERENCES* are taken from the subject and Cause.

From the *Subject*. 1. There is one of the *Fleshy parts*, which is finished in the fourteenth day. Another of the *Tendons* and *Ligaments*, which because their substance is more compact and hard, is terminated with greater difficulty: yet it does not exceed the fortieth day.

From the *Cause*. Either it is from *good Blood* and is termed simply a Phlegmon or Inflammation;

flamation; or from *bad Blood*, which has either quite changed its nature, and that raises no kind of swelling; or it has other Humors mingled therewith; and then, if *Choller* be mingled, it causes that Inflammation which is termed *Phlegmone Exysipelatodes*; is *flegm*, *Phlegmon Oedematodes*; if *Melancholy*, *Phlegmon Scirrholes*.

Article, III. Of the *Bubo*, or Inflammation so called.

The *Bubo*, is an Inflammation of the *Kernels* which are seated in the *Arme-pits*, or in the *Groines*.

The *SIGNES* are a stiff swelling that yeilds not to the touch, with redness, pain, and a slight fever.

The *CAUSE* is Blood split into the *Kernels*, together with a vitious Humor provoking Nature to expulsion.

The *CURE* is *Doubtful*, when they ripen slowly, because they may turn to dangerous fistulae. It is according to the *Cure* of Inflammations. *Digestion* must be procured by stronger Medicaments, because the part affected is colder. *Suppuration* ought to be hastened, least new ones should break forth. The *Balsam of Sulphur* and the *Plaster of Sulphur* of *Rulandus*, are commended.

The *Differences* are divers.

I. One is *Symptomatical* to which that which was lately said is appliable. Another is *Critical*, which follows another Disease, and eases the sick by its breaking forth. It must be left to Nature, if the *Crisis* be perfect: if it be imperfect, the Humor must be drawn forth, by *Cupping-Glasses* and drawing Medicaments.

II. One sort comes in the *Groines*, which is sooner ripe, because it springs from blood, and more Heat flows to those parts. Another is in the *Arme pits*, which for the contrary Cause, is long ere it come to Maturity.

III. Some *Buboes* are *Neither Malignant nor Contagious*; which being in the extrem parts of the Body, are soon suppured, and not dangerous. Others are *Malignant, Pestilential, or Venerious*: of which see in their proper places.

Article, IIII. Of the *Phygeton, Phyma, Furunculus, or Felon* Tumor so called.

Phygeton or *Panns*, is an hard swelling, sometimes arising after Feavers or pains in the *Kernels* or *Almonds* of the *Eares*. It Arises either Externally from an Ulcer, Pain, Bruise; or Internally from *Chollerick Blood*, or a Feaver, and is long in ripening. *Oyl of Guaiacum Wood*, is good in this case. *Phyma* is a round swelling of the *Kernels*, smaller and flatter than the *Phygeton*, less read and less painful, which soon comes to its height and urnes to suppuration. It Arises from *Flegmatick Blood*, and troubles Children chiefly. It is Cured by ripening, through application of toasted Wheat &c.

Furunculus or *Dochien*, a *Felon*, is a little swelling sharp pointed, not exceeding the largeness of a *Pigeons Egg*, remarkable for its redness and pain when it tends to *Suppuration*.

Its *Signes* are known by the definition. It seldom comes single. It Springs from thick blood, and is thereby distinguished from an Inflammation; and the said Blood is not much a dust, and to it is differenced from a *Carbuncle*. The *Cure* is easie, especially if it rise high pointed, and is not hard nor forked. It is performed by Ripening. It is either *Mild and Gentle*, occupying only the *Skin*; or *Malignant*, rooted in the flesh. Or it is *Pestilential* and *Epidemical*, which being black or green, is joynd with a *Malignant Feaver*.

Article, V. Of the Tumor *Parotis*.

Parotis is an Inflammation of the *Kernels* behind the *Eares*, proceeding from *Blood*, either pure or mixed with vitious Humors.

The *Signs* are, Swelling, Pain, Redness which appears behind the *Ears*. The *Cause* is blood, either alone, or mixed with other vitious Humors, which slips into these parts, being sent from the whole body, or from the *Brain*. In the *Cure*, we must not repel, but *Dis-cuss* by gentle Medicaments, least stronger should exasperate the Pain; Also *Suppuration* may be procured, when Nature tends that way.

The *DIFFERENCES* are divers.

I. One sort is *Critical*, arising with *Critical*, signs, which is easie to cure; unless it hapen in

the end of a Disease, after other Evacuations, without the Abatement of the Symptoms. If it vanish away without Suppuration, it will come again. It must be left to Nature; and being returned, it must be judged of, according to the Nature of its return. Another is *Symptomatical*, which if it spring from crude and undigested matter, it is dangerous, because the place is so nigh the brain. In the *Cure*, its antecedent *Cause* must be diminished: and the *Matter* dissolved, softened, and opened, that the *Quittor* may do no hurt.

II. Some are *without feavers*: others with *feavers* which are more dangerous.

III. Some are *without Malignity*: others are *Pestilential* and *Malignant*.

IIII. In some the matter flows from the *whol Body*; in others, from the *Brain*.

Article, VI. Of *Nail-sores*, *Kibes* and *Chilblainers*.

Paronychia, the *Nail-sore*, is a *Tumor* arising upon the *fingers ends*, beside the *Nails*.

The *SIGNES* are taken from the *Situation*, and *greatness* of the *Pain*, because the *Nervous parts* adjacent are affected and the said *pain* reaches sometimes all the *Arme* over.

The *CAUSE* is *blood adust*, sometimes *Malignant*, which *Nature* thrusts out into those *parts*.

The *CURE* is contrived by *Evacuation*, *Mitigation* of *Pain*, and *Suppuration*. *Repellers* must not be used, least we exasperate the *pain*, and fix the *Humor*. *Oyl of Lead* is commended by *Agricola Page*, 216. And *Eare-Wax* applied with a peice of *Ele-Skin*. *Page*, 246.

Perniones, *Kibs* and *Chilblains*, are *swellings* which arise in the *winter time*, upon the *Heels*, *Toes* and *Fingers*, with other *parts* of the *Hands* and *Feet*.

The *SIGNES* are, *Refrigeration* forgoing, *Pains*, *Itch* &c. The *CAUSE*, the *winters cold* weakening those *parts*, and by *pain* drawing *blood* unto them. They are sometimes long-lasting, and though they go away in *Summer*, they return again in *winter*. In the *Cure*.

1. The *cold* must be expelled by plunging the *part* into *cold Water*. 2. The *Part* must be fomented with *blood warm Milk*, wherein *Rose-Mary*, *Bay berries* &c. Have bin *boyled*; or it must be put into *hot Water* wherein *frozen Turneps* have been *boyled*.

Article, VII. Of an *Ecchymoma*.

Ecchymoma, is the *effusion* of *Blood* into the *neighbouring spaces* whereby a *Part* comes to have a *livid*, *black* and *blew color*.

SIGNES are *needless*, seeing the *Disease* is *apparent* to our *Eye-sight*.

The *CAUSES* are various; viz. *Anastomosis*, *Diapedesis*, *Diarexis*, *Contusion*, &c.

The *CURE* is performed. 1. By *Blood-letting*, if the *Disease* be *great*, least *Inflammation* be *caused*. 2. By *Repelling Medicaments* which must not be *moist*, least *blood* flow in, and they must have *discussors* mingled with them. *Honey of Roses* laid on with *blew Paper* is good, as is *terra Sigillata* dissolved with *Water of Life*. By *Digestion*, to which intent the *Root of Solomons Seal* bruised and steeped in *Wine* or other *Liquor* is good. 4. By application of *Cupping-Glasses*, if *digesters* help not. 5. By laying on *Respers* that are. Of a *middle Nature* between *strong* and *weak*. 6. By *opening the Tumor*, least the *Quittar* corrupt the *neighbouring parts*, or make *hollow fistulae*. 7. If the *part* encline to a *Gangren*, we use to *scarriue* the *same*, and to *wash* it with *hot Vinegar*, wherein the *Root of Solomons Seal* has been *boyled*. *Inwardly*, such things must be given as *dissolve* *clotted Blood*.

Article, VIII. Of a *Carbuncle*.

A *Carbuncle* is a *Tumor* springing from *Adust*, *thick*, and *most fervent blood* degenerating into *black Choller*, which *corrupts* the *part*.

The *SIGNES* are these following. A *crusty Ulcer* arises, *blackish* or *Ash colored*; not long after, a *round Bubo*, *sharp* and *burning*, which is worst towards the *evening*, breaks forth, and the *flesh* round about is very *hot*. There concurs a *Feaver*, *stomach-sickness*, *vomiting*, *panting* of the *Heart*, *Swownings*, *Ravings*, &c.

The *CAUSE* is such *blood* as *aforsaid*, which being *bread* in the *Body*, and having attained a *certain degree* of *Malignity*, is cast out, and continually generated by a *new afflux* of *Matter*.

The *CURE* in general is in a manner *None*, if having been *red*, they presently vanish away. *Hard*, of such as are *black*, and which are *teated*

seated in the emunctories; and near the noble members of the body. *Easier*, of such as are red, Smal, Single. *The manner of proceeding in the Cure is this.* 1. Let a *Diet* be prescribed cold and moist. 2. *Blood-letting* must be practised at the beginning, to take away fervent blood, provided it be not drawn through some noble Members. 3. The Malignant Humor must be prepared and *Mitigated*, to which intent *Scabious* is most prevalent. 4. We must *Purge* warily because of the acute Feaver. 5. The part must be *Scarified* where you are to note, that the *Scarification* is to be iterated, if the blood require the same again. We must not *Draw*, if the Humor flow violently into the part, least the Feaver and pain should be augmented. Nay rather, moderate *Repression* is to be caused, by applying Medicaments to that end three fingers space round about the Carbuncle, To which intent the *Pap* of Appels is used, boyled with Vinegar of Roses into the form of a Pultis. A *Liniment* of Bole-Armoniack, with a sufficient quantity of Oyl of Roses &c. The *Plaster* of Agricola T. 1. Page, 139. The part being Scarified must be washed with Salt Water hot. 6. After it is washed Medicaments must be applied which resist putrefaction, especially made of *Scabious* and *Devils-bit*. 7. If Scarification help not, we must use *Burning*; but so, that we presently anoynt the Crust with Unguentum *Egyptiacum*, or apply thereto a Cataplasme of *Orobis* meal and Oxymel simple, to remove the same, least if it remain upon the place, it prevent the breathing forth of the Malignant Humor. 8. The crust being removed, the Ulcer must be *cleansed* &c. The Cure thereof, see in Agricola T. 1. Page, 139. If you please.

The Difference is two-fold.

I. One sort is without any Pustle which discovers it self by those signs, of which mention is made in general, and there is nothing singular in the cure thereof. Another is with a Pustle; which is known, because an Itching is first felt, and soon after, one smal pustle or more, like the graves of Miler shoot forth, which being broken a crusty Ulcer shews it self. In the Cure there is nothing singular observable.

II. Another is *Pestilential*, and then the Constitution of the year is such; the Symp-

tomers are stronger. The Cure is most Difficult, if it break out after a pestilential Feaver, the heart being possessed by Malignant Humors. Tis easier, if it break out before, unless violent Symptomes appear soon after. In the progress thereof, these things are to be noted. 1. That Blood-letting must be avoided, because it breaks forth, after the Patients strength is dejected. 2. That we are chiefly to make use of *Antidotes* both Internally, and Externally. 3. All possible diligence must be used, to hinder the putrefaction from spreading. To break it, the *Plaster* of Heurnius in his comment upon the 55. Aphorisme of the fourth Book, is commended. Oyl of Antimonial butter, the *Magnetick Plaster* of Hartman, in his Chapter of the Plague. *Agricola* his Oyl of Mercury. T. 1. Page, 139. *Elixir* Pestilential of *Crollius*, &c. A *Cataplasme* of radishes beaten with Rose-Vinegar described by *Joel* T. 6.

Another is not Malignant and milder, which at first looks red like a Flegmone or Inflammation, and afterward waxes Yellow. For its Cure, see the general Rules.

Chap. 2. Of Tumors springing from Cholles

Article, I. Of an Erysipelas or Tumor so called.

And so much may suffice to have spoken, concerning Tumors arising from blood. From Cholles proceeds Erysipelas and Herpes.

Erysipelas, or St. Antonies fire, is a Chollick Tumor springing from Chollick blood, flowing together into some part under the Skin, with a spot which is red, broad and dispersed up and down.

The SIGNS are, it seizes the patient with shiverings; after which a Feaver follows. There is a vehement biting and burning, so that smal bladders sometimes arise. The color is red inclining to yellow, not red inclining to brown; which, being pressed with the finger, vanishes and quickly returns. A pain which is neither pulsative nor vehement, and stretches it self out to the neighbouring parts without tension. These signs are not observable in an Inflammation or Phlegmon.

The CAUSE is Chollerick blood, which is bred by an hot Liver, whereby it becomes more thin and movable: or by nature, many times because of a maligne quality, it is driven into the outward parts, or is moved by external Causes &c.

The CURE is *hard*, if it follow upon the baring or fracture of bones. It if turne from the external to the internal parts. It is putrifie, or suppurate. If it arise on the Head or Face, because the Tumor being augmented, it causes the squinzy. If in the Liver or Womb of Women with Child, because it kills the Infant. It respects. 1. The driving away of the Disease, to which end are subservient. 1. *Blood-letting* from the Liver or median Vein, in Plethorick and gross bodies. 2. *Purgation* by the cooler sort of choler-purgers. 3. *Provocation of sweat* by Venice Treacle, in Elder-flower water &c. 4. *Application of Topick* or external Medicaments, which must be liquid and thin, and frequently renewed. The principal are, the *Lapis Medicamentosus Crollij*. *Menstrual blood* dissolved in Groundsel-Water and Rose-vinegar. *Balsom* of Litturige with Camphire, in Frog-spawne-Water. *Decoction* of red Myrrh and Olibanum, each one ounce, in Wine and vinegar of each four ounces. A Linnen bay ful of wheat bran, heated. The Liniment of Sebize, at the end of his Book *de Acidis*. 2. *Preservation* from this Disease. Where *Blood-letting* is useful twice a year. *Purgation* by Choler-purgers. Diet enclining to cooling and moistning, wearing of *stockings* wet in Frog-spawne-water. The use of that *Preservative* mentioned by *Simmartus*, in his second Book of Feavers Chap. 16.

It is divided two manner of waies.

I. One is *Exquisite*, to which the general rules aforesaid agree.

Another is *Bastard*, and that either *Pblegmonodes*; *Oedematodes* &c. Wherein the Tumor is greater.

II. One is *Simple*, in which the top of the Skin is colored and tainted, and dry scales are raised like bran. In this case, after general remedies, cooling Topicks are to be applied, and the discuffion must be left to Nature.

Another is *Ulcerous*, in which after the pustles are broken, faines or Blood-Water and quitter come out. It quickly breaks forth, with an evident Fluxion. It has great moist pustles. Tis quickly come to solution and of its own accord: and so tis distinguished from

Herpes. To this al other things corresponding, cooling Topicks or external Medicaments may be applied, til the color of the skin be altered. See the Cure in *Rulandus*.

Article, II. Of Herpes, or the Shingles.

Herpes, Fercica, or the Shingles, is a Tumor raised by Yellow choler pure and unmixt with other Humors, upon the surface of some part of the body, and creeping along to the neighbouring parts.

The SIGNS are, a broad Tumor, ruffing the Skin; hardness, pain, sense of burning; it makes a Circular kind of progress, the middle parts healing, while the extreame parts break out a fresh.

The CAUSE is Yellow choler sincere or unmixt, and thicker than in *St. Antonies fire*, proceeding from its causes

The CURE respects. 1. The *whol Body*, which must be Evacuated. 2. The *part affected*, which must be gently cooled. Digestion must be used and discuffion, by dryers, if heat permit.

Its divided into *Simple*, and *Eating*.

I. The *Simple* or *Milet fashon'd* Herpes, roughs the top, of the Skin, and is quartered only under the Epidermis or Skarfe-skin, raising thereupon very smal pupples, which have very smal height from the skin, like the graines of millet. If the pustles are whole, cold and dry things must be used: if broke, cleansers. Water of *quick-Lime* and Sugar of *Lead* are very good. A *Decoction* of *Arse-smart* and *Resberry leaves* in water and Wine &c.

II. The *Eating* or *devouring* Herpes, the pustles being broken exulcerates the true Skin, spreading it self in depth and breadth; and is long in coming forth by little and by little, it has dry pustles, lasts long, and comes unattended by a Feaver. Thus it is distinguished from an *Ulcerous St. Antonies fire*. Stronger Medicaments must be used in these sorts of shingles.

Chap. 3. Of Tumors springing from Flegm.

Article, I. Of the Tumor call'd Oedema.

Oedema, (being the only Tumor arising from Flegm) is a swelling caused by *Flegmatick*

Flegmatick matter, which Nature expels into the parts of the Body.

The SIGNS are, the softness and looseness of the Tumor, pain none or very little, whiteish color, no heat.

The CAUSE is Flegmatick matter, the colder and moister part of the blood; which is sometimes expelled by Nature, sometimes tends downwards, by its own weight, and settles in the extrem parts: It chiefly quarters upon the Hands and feet, being Members remote from the Fountain of Heat.

The CURE is performed. 1. By Diet, which must not occasion Fleagm and crudities. Fish are allowed, that swim in stony-bottomed Rivers. 2. By Alteration and Digestion, where Oxymel and Oxyssaccharum are good. 3. By Resolving with Discussers, but the part ought first to be heated by frictions and fomentations. 4. By Suppuration, if by pulsation and pain, we perceive it tending thereto. Whereof see *Platerus*.

The Differences are sundry.

I. One springs from *Flegm alone*, which is more lasting; and is for the most part dissolved by Resolution, that is to say, through the pores of the Skin. Another comes from it and other Humors mixt therewith; which sometimes suppurates, especially if it be in an hot part.

II. One arises of it self which is not dangerous. Another sort follows other Diseases, as the Consumption, cooling of the Liver &c. Which is dangerous and threatens death. In the Cure, regard must be had of the Diseases upon which it depends.

Chap. 4. Of Tumors proceeding from the Melancholick Humor.

Article, I. Of the Tumor called Scirrhus.

The Tumors which arise from the Humor of Melancholick are the *Scirrhus* and *Cancer*.

The *Scirrhus* is an hard Tumor without pain, springing from a Melancholick Humor, which is thick, clammy and roaping.

The SIGNS are, little or no pain over-great hardness, & want of feeling when it is pressed.

The CAUSE is, an Humor either Ma-

lancholick, that is to say the dreggy part of the Blood, or the natural Melancholick Excrement; or sometimes also *Flegmatick*, which is either thickned by heat, dissipating the thinner parts; from thence Inflammations, *St. Antonies* fire &c. Follow: or it is hardened by an Immoderate Application of repellens, astringents and strong Discussives.

The CURE is None, if it have no feeling: otherwise some cure may be. 'Tis hard by reason of the stubbornness of the matter. It is performed. 1. By Diet, which must yeild very good nourishment. 2. By the frequent Evacuation of the prepared Humors. 3. By Removing the Contment Cause, by Emollients and Discussers, either mixed together or used alone one after another, interchangably. The milder sort in persons tender and soft fleshed and when the Tumor is new. The stronger in harder bodies, and where the Scirrhus is old. *Fabricius Hildanus* his Plaster of Hemlock mentioned in the 25. Observation of his 3. Century. A Cataplasme of *Briony* Roots, *Goats-dung* and *Urin*; are very good. 4. If it come to suppuration; by cleansing away the quitor with the Plaster of *Diachylon simplex*, omitting heaters and section or lancing, lest it turn to a Cancer.

It is divided into a true or Legitimate, which is void of sense, and in which hairs grow upon the part, for which there is no Cure: and a bastard which is contrarily disposed to the former.

Article, II. Of a Cancer.

A Cancer is a round Tumor, blite or blackish, having Veins round about it, full and swelling, resembling the feet of a Crab; and springing from black Choller.

The SUBJECT are parts of the Body as well external as internal, especially the moister and upper parts, as the Dugs of Women.

The SIGNS are drawn from the manner of its Rise. At first, its hardly so big as a bean, in the progress it exceeds a Walnut and an Eg; it is hard, of a Leaden or livid color, or Else blackish, with heat, pain and pulsation; the veins round about swell with black blood, and resemble the feet of a Crab.

The CAUSE is adust and black Choler hanging in the veins, and by its thickness unable to pass along; which springs partly from

Nutrimment affording such an Humor, which has not been drawn by the Spleen, partly from an hot burning distemper.

The CURE is difficult in al; both because it comes from a stubborn and Malignant Cause: and because it lurks in the deep veins. It is not to be undertaken, if the Cancer be hidden. If it be seated in a Cavity of the body, in the palate, Fundament, or womb. There is no Cure, if it be confirmed, and seated in some noble part of the body. It is of some Hope, if it be smal, fresh, and slick in the surface of the body. How it is to be performed, see in the differences. As for what concerns the differences.

I. One sort is *Exulcerated*, which is easily known, and is caused by a matter sharper than ordinary. It has the appearance of corrupted flesh, with stench, filthy matter coming forth, an horrid aspect, Lips very hard and turned in. There is a slow Fever conjoyned, Swowning, black or yellow fains or Blood-water, running out of blood &c. Its Cure is either *Palliative* by gentle dryers and coolers: or true. 1. By *Incision* to the quick, after which the corrupt blood must be pressed forth, the Ulcer concocted, mundified (see Hartmans powder, in his Chapter of a Cancer in the brest or Dug) filled with flesh &c. 2. By *burning*, either actual or potential, if the profounder and greater vessels be thereby occupied.

Another sort is not *Ulcerated*, which arises from a milder matter. Is Cured, 1. By Diet Moystening and cooling. 2. By *Blood-letting*. 3. By repeated *Purgations* of the Humor, with extract of Hellebore, pills of Lapis Lazuli; after it has been prepared with *Fumitory*, *Hops*, Juyce of Fragrant Apples &c. 4. By Application of *External Medicaments*, in which case gentle *Repellers* are useful, as the compound of Frogs-spawn. *Discussers* which have no biting quality, as *Pulvis Benedictus* of Hartman, the *Magistry of Crabs-shells* &c. See *Agricola* also, T. 1. Page, 145.

II. Another springs from *Suppression of the Courses*: Another of the *Hemorrhoides*. The Cure must be applied to those Diseases.

Chap. 5. Of Tumors springing from Wheyish, Salt and Cholerick Humors mingled together.

Article. I. Of Scabbiness.

Tumors springing from mixt Humors, do arise either from salt, Wheyish and Cholerick Humors: or from Flegm, Melancholy and Choler; so that the conjoinct cause is no longer an Humor, but some other matter bred of Humors. Hereunto belong *Scabbiness*, the *Grecian Leprosie*, *Pblyctina*, *Sudamina*, *Sirones*, *Vari*, *Epinyctides*, *Alphus*, *Leuce*, *Impetigo*, and *Gutta rosacea*.

The Scab, Is a Tumor arising from corrupted blood, vexing the Patient with distemper and Exulceration of the skin.

The SIGNS are set down in the definition.

The CAUSE is corrupt blood, mixt with black choler and salt Flegm; which either comes from suitable Diet, especially when the Liver is distempered with Heat; or it is corrupted by contagion: and being brought unto the skin, it sticks therein, and causes Exulceration.

The CURE is accomplished. 1. With Diet which requires boyled meates. 2. By *Contemperation* and *Evacuation* of the Humors, and reducing the Liver to its due temper by the Syrup of Coral of *Quercetanus*.

It is divided three manner of waies.

I. One is *Symptomatical*, to which what has been said ought to be applied.

Another is *Critical*, which breaks forth after acute or long Diseases.

II. One sort is *moist*, out of which much fains or blood-water Issues. It is caused by *Salt Flegm*. Tis Cured more easily than the dry Scab, and that. 1. By *Evacuation* to which end whey of Goates-Milk, and *Fumitory* are much commended. 2. By *provoking Sweat*, either by half an ounce of *Spirit of Dwarf-Elder* and two ounces and an half of *Fumitory Water*, or by *Spirit of Guaiacum*, or *Antimonium Diaphoreticum*, if it be more hard to be removed than ordinary. 3. By *Application of External Medicaments*. And here bathes of fresh water, and brimstone

stone bathes, are useful. Also to apply the Yellow middle bark of *Frangula* with Vinegar. And *Sinnertus* his Oymntment Book 5. Page, 1. Chap. 27.

Another Dry, in which nothing is voided, or a little quantity of thick matter, and the Ulcers are Lead colored. Tis Caused by an aduft Humor. Cured with difficulty, after the same manner as the former, having respect to the Causes. Another sort is termed *Volatica* the *Running Scab*, which infects al the skin, in one night for the most part. In this, universal Remedtes being premised, tis good to wash the Scabs, with the blood that comes from a Woman with the after-birth. See *Agricola* T. Pape, 280.

III. There is another sort termed *Malum mortuum*, which vexes the Patient with a Lead and black color, crusty pustles, black, Dry, without fence or pain, chiefly in the Legs. It Springs from a Melancholick and Scorbutick Juyce. Tis Cured after the same manner, having respect to the Difference. Another sort is the *Leprosie* of the Greeks, which differs only gradually from other Leprosies. Tis Known hereby, because it Eates deeper into the Skin; and scales as it were of Fishes fall of, whether the Patient scratch or scratch not; and the Scabs stink filthy. Tis Caused by black-Choler. oftimes mingled with Salt Flegm. Cured, by the same kind of things as the Scab, but stronger. The distemper of the Liver must cheitly be redressed. Sweat must be procured with a Decoction of *Salsaparilia*, *Guajacum* and *China*.

Article, II. Of the *Phlyctæne*, *Sudamina*, *Sirones* and *Vari*, Tumor so called.

Phlyctæne, (or wild fire) are little blisters or Bladders raised in the skin, by exceeding sharp Humors. They are known hereby, because they are like such as proceed from scalding, and when they are broken, a yellowish Humor breaks forth: Spring, from a Chillerick wheyish Humor, which is thrust out into the skin either by Nature, or some external cause. Are Cured by a Decoction of Duckweed (universal Remedies being premised if need require) an Epitheme of strong Lie made of Beech Ashes, mixt up with Lin-seed Oyl and walnut Oyl of each a like quantity, and frequently applied. 2. By Breaking; a drying Cataplasme being presently applied.

II. *Sudamina*, are pusles like millet seed, which Ulcerate and ruff the skin. They are

known most easily. They arise from plenty of sweat, restrained within the skin, especially in an hot and moist stomach, after an hot Diet. Are Cured by washing with Oaken-water, to which a grain or two of Camphire may be added,

III. *Sirones* or *Cbirones*, are Pusles in the Palms of the Hands, or soles of the Feet, which have little worms in them. The worms must be Dug forth: then the place must be washed, with a Decoction of Oake-leaves with Alum; or of Sulphar with Oyl of Tartar.

III. *Vari*, are little hard Tumors on the skin of the Face, curdled up of an hard thick Juyce. They are known easily. They are of the bigness of Hemp-seeds, and they infest young people that are inclined to Venery, and fruitfull; but chaste withal and continent. They arise from an alimentary Humor for the most part, which insinuates it self into the pores of the Skin, and sometimes has Cholerick blood mingled therewith; and then they shed forth an ichor and turn to ulcers. They are Cured with Difficulty, if there be a deep redness in the Face with pustles. If the same be joyned with a bloat Face and Hoarseness of the voice. The Cure is wrought, by Discussers and Emollients, premising such things as purifie the blood. Commendations are given to Oyl of *Vitriol Sulfur*, or *Tartar* smeared on in the evening, and washed of again in the morning with warm water wherein bean-flower has been steeped.

Article, III. Of the *Epinyctides*, *Alphus*, and *Leuce*.

Epinyctides, are smal Ulcers, which break out, of their own accord especially in the night, in the eminent parts of the Body, resembling Bladders which being broke in sunder, blood-waterish matter runs forth. They are known by their leadenish color or blackish, vehement inflammation, pain encreasing in the night, by reason of the motion of black-Melancholy, and the nights cold, stopping the pores of the skin. They arise from a wheyish and Melancholick Humor, like the Cause of a Carbuncle in all things save Malignity, and greatness of the Tumor. The Cure consists in Evacuation and Topicks that bridle and temper the courtliness of the Humor offending.

II. *Alphus*, The *Morpheu*, are great Blots or spots upon the skin, changing the color thereof, which are spread up and down here

and

and there, with a certain roughness. They arise from blood badly nourishing and they trouble Men more than women or Children. They are either *Black* springing from Melancholy blood through default of the Spleen, which are *Cured* after universal Remedies, by good Diet, bathings, anointing with Mustard-seed powder mingled with water: or *White* but not exactly agreeing with the whitens of the skin, which spring from Flegmatick blood, chiefly through default of the Liver. The skin is by them made white, but not the Hairs, and if it be pricked, blood follows. They are *Cured* more easily than the black one. They require not *blood-letting* by reason of the coldness of the blood.

II. *Leuce*, is a continued blot, changing the color and substance, both of skin and flesh. Tis known, both from what is set down in the Description: and because it makes the hairs fall of, and others grow in their place, like down. The skin is flatter, than in other places. If prickt with a pin, a watry and white liquor comes forth. It springs from Flegmatick blood, with which the flesh being nourished, first becomes of a middle nature between that of Animals that have blood, and that of bloodless Live-wights, and afterward when it cannot change it into the form of red-flesh, it becomes like the flesh of Oysters and Locusts. The Cure is *Desperate*, if after rubbing it look not red. If prickt, no blood follow: if the blot continually encrease. *Difficult*, if it be mal, if rub'd it shew some redness, or be upon the hand or foot. Tis *Performed*. 1. By Preparation of Humors by heaters and cutters. 2. By Evacuation with Flegmagogues. 3. By external Applications, the parts being first rubbed with a Course Cloath.

Article, IIII. Of the Impetigo and Gutta Rosacea.

Impetigo, Or Lichen, a Tetter or King-worm, are hard pustles upon the Skin, which spread themselves into the bordering parts, with dryness, roughness and great itching.

Tis known by what is in the definition expressed. It arises from a thin, sharp, wheyish Juyce, mingled with an earthy Humor, which comes from a suitable Diet, and sometimes in the Spring and sometimes in the fall it enclines to the outward parts, and breakes forth. Tis *Cured*. 1. By good Diet, which must be neither salt, nor, biting. 2. By Alteration and Evacuation of the Hu-

mors, if they too much offend. 3. By Application of Topicks. Unguentum Citrinum with Oyl of Eggs, live Brimstone, Oyl of wax, of Cloves, and Camphire are commended, after a fomentation of Mallows Mullein and Fumitory. Also Oyl of Tartar per Deliquium with a like quantity of Oyl of Wax mingled. Tis *Divided* into a Gentle sort, which being anointed with fasting Spittle, or with the Roots of the sharp-pointed Dock, beaten with Vinegar, is sometimes cured: and a *Feirce* or *Angry* sort, in which, besides the former Medicaments, a water distill'd out of Oyl of Tartar, with crude Mercury is good, the Mercury being in a quadruple proportion to the Oyl of Tartar. Joil his Experiment of the rust of Iron, Book. 10. Of his Practice, S. 3.

II. *Gutta Rosacea*, is a Pustulous and sometimes Tuberos redness of the Face, Representing Rose-colored spots. Tis known by the sight. Its Original is from thick blood and fervent, bred through default of the Liver originally or by bad Diet, and carryed up into the Face and there sticking, by reason of its thickness. Tis *Cured*. 1. By reducing the heated Liver, to its right temper, with Syrupe of Cichory, Straw-berryes, and Coral. 2. By opening the stoppages thereof. 3. By Topicks as the menstrual blood of a Virgin dissolved in hot water, Oyl of Toades &c. See Hartman of redness and Pustles in the Face.

Chap. VI. Of Tumors wherein the Humor is included in a proper Membrane.

TO such kind of Tumors there are three sorts referred.

1. *Strumæ*, or *Scrofulæ*, which are a Scirrhous, Tumors of the Glandules, contained in a peculiar Membrane. Their Subject are the Glandules or kernels in the Neck, Dugs, Armpits and groins. They are known by the sight especially among the inhabitants of the Alpes. They Arise from a Flegmatick, Melancholick, mixt Humor, which proceeds from the crudity of Diet; or from a gross Juyce nourishing those parts, mixed therewith: which is shut up in a peculiar Membrane, made by the formative faculty. See the Cure in Book 5. in a peculiar Chapter. Tis divided into *simple*, of which now, and *Cancerated* which are mixed with a Cancer by reason of Black-choler. 2. Into *Free* which are Joynd to no Vessel; and

and *Intangeld* or *Intaild*, which are Joyned with some remarkable Artery, Vein, or Nerve.

II. *Ganglion*, Which is a Tumor scituate upon a Bone, by reason of a Preternatural twisting or wreathing of a Nerve, which is grown together into one body. The Subject are parts which are covered not with much flesh, but skin only. It is known, both by its situation, and that it is void of pain, and of the bigness of an Eg, may be stretched to the sides, and being pressed it makes the body feel the pressure. It arises by occasion of a blow, reaching, or labour, which stretches and as it were breakes a Nerve or tendon. Whereupon the excrement of the Nervous part sweats out. and sticks about the Fibres and Nervous parts, and by their formative faculty, is changed into this substance. Tis Cured, by Emollients as *Emplastrum de Ammoniaca*; and digesters; and if they suffice not with suppuraters and by Section; concerning which see the Authors.

III. Those kind of Tumors, which spring indeed from the same cause, viz. A Flegmatick Humor or Alimentary Juyce; only they are distinguished, by the matter contained in the bladder, and from thence take their respective Names. For it is named *Meliceris*, if the matter included be like Honey, the Tumor rounder than ordinary, and giving way when it is touched. *Atheroma*, when it is like Water-gruel or Hafty-pudding, and hard to the Touch. *Steatoma*, when it is like to suet.

Chap. VII. Of Tumors arising from a solid Substance.

TO such kind of Tumors, these three sorts following are to be referred.

I. *Verrucz*, *Warts*, being Tumors standing upon the skin like *Hittocks*. They are known very easily. They arise from, either a thick Melancholick and Flegmatick matter, or from such Juyce as is ordained to nourish the Skin and Scart-skin. They are Cured either by Application of appropriate Medicaments, such as are the Juyce of *Willow-leaves*, and *Cichorium Verrucarium* or *Wart-cichory*, water which Stands on the stumps of felled Oaks. *Spurge Milk*, an *Onion* bruised with salt. They are divided into *Hanging warts*, which the Greeks term *Acrochordones*, being broad on the top, and smal at the bottom where

they are fastened to the skin, as it were by a stalk: *Thymia*, which are colored like time, are likewise smal at the skin, broad, hard and rough on the top, being smaller than the hanging-warts: and *Sessiles* which the Greeks term *Myrmecia*, lower than the *Thymia*, scarce bigger than *Lupines*, hard, broad-bottom'd, deep rooted, and causing pain.

II. *Clavi cornes*, which are wont to breed on the Toes and Soles of the Feet, by the pressure and wringing of shoes; which sometimes of their own accord prove very painful, and are alwaies troublesome to the goer. They must be Noynted with the blood of an Ele, and Oyl of Mercury; and when they are softened, with Oyl of *Snailles*. When they are cut, smeare them with the Urin of a dog, and lay on a Plaster of red Wax.

III. *Callus*, *Brownyness*; is an hardness bread in the surface of the skin, in the palms of the Hands and the lowest parts of the soles of the Feet. It has no deep Root, and is void of al pain. It may be pared of, after frequenc washings and soaking in water.

Chap. VIII. Of Tumors caused by solid parts falling from their due Situation.

Article, I. Of *Aneurisma*, *Varix*, and *Elephantiasis* by the Arabians so called.

TUMORS proceeding from solid parts falling down into or lying upon any part are many: we shal here speak only of the *Aneurisma*, *Varix*, and *Elephantiasis* of the Arabick Physitians so called; the rest we shal treat of in their proper places.

I. *Aneurisma*, is a Tumor arising from a breach in the inner coat and a widening of the outer coat of an Artery. Tis known, because it is a soft Tumor, beating with the pulse, and for the most part, yeilding to the finger; and if it yeild not to the finger, nor pulle, which may fall out in a great one: yet a noise as it were of boyling water is perceived, because of the passage of spirits through narrow waies, and so it is distinguished from an *Ecchymoma*. It arises through default of the Artery, which in respect of its inner coat, which is hard and thick, is opened; in respect of its external coat, which is thin soft and rare, it is widened. It is wont to happen, either by the Violent Motion of the blood, or by some external force;

most frequently, when either an Artery is opened instead of a Vein, or an Artery together with a Vein is hurt. For then, the external coat, as being soft, and of kin to the coats of the Veins, growing together, and the inner remaining open, the blood and spirit Issues through the hole and distends the external coat. Tis Cured with Difficulty, if smal, if new. Is in a manner incurable if old and great, and if Section be made, danger of death is incurred. The Cure is undertaken. 1. By Application of Repellers and astringents; where Emplastrum Contrarupturam is useful &c. 2. By Section or cutting; touching which see Authors.

II. *Varix* is the Dilatation of a Vein. It happens *Cheisly* in the *Thighes*, under the Navil, and sometimes in the temples. It befalls men principally, yet hardly before they come to Age. Tis known by the swelling of the Veins, and the part being Lead-colored or black. It arises from thick Melancholick blood, which falls into the place, either through its own weight, or being thrust thither by some violent Cause. *Varices* ought not to be Cured if they be critical, and free the patients from other Diseases, as they are wont to do from madness. If they are to be Cured, they are hardly Curable by Section; but best of all by extraction, of which see *Aquependens*.

III. *Elephantiasis* of the Arabians, is a Tumor of the Feet, springing from Melancholick, *Flegmatick* blood, and the *Varices*. Herein the *Thighes* are swelled, of a Lead-color, black and full of Ulcers. It can hardly be Cured without a continual and long Course of Physick.

Chap. IX. Of Malignant Tumors.

A single Article. Of the *Elephantiasis*.

Malignant Tumors are sundry, *Viz.* *Buboes*, *Carbuncles*, *Smal Pocks*, *Meazels*, *Elephantiasis*. Of the rest I have spoke or shal speak elsewhere. I shal here treat only of the *Elephantiasis*. Tis called also *Leontiasis*, *Satyriasis*, and *Lepra*, Being a Cancerous Tumor of the whole Body, springing from black choler infected with a Venomous quality, and shed into the whole habit of the Body causing many Symptomes.

I do not mean the *Elephantiasis* by the Arabian Physicians so called, nor the Leprosie of the Jews.

The SIGNS are either of the Diseases beginning, as frequent spots in the Body, roughness of the skin with risings, like a Goose with the Feathers of, with many scales and chinks, especially in the Face, Hands and Feet, falling off of the hairs. Or coming to the height, as a Tetter upon the tops of the fingers and the Chin, and the Eye-brows, which are thick and hanging over, hoarseness of the voice, sweat easily turned into salt, which will not melt in water; the blood being washed leaves grains and Sands in the bottom of the water. See the Trial of this Disease in *Horselius* his Medicinal Epistles, S. 4. *Tim.* 1.

The CAUSE is a Melancholy Humor and black Choler; which arises either from external Causes, dry constitution of the Aire, and Diet suitable; or from internal, *viz.* An hot and dry distemper of the Liver. Also it contracts a Venomous and Contagious quality, whence the Disease comes to infect others. The CURE is None when the Disease is confirmed, tis Difficult when it is newly begun. Tis Performed. 1. By Diet, where *Viper Wine* is good, and the flesh of *Vipers* boyled, their Head and Taile being cut off, *Cider*, *Chickens* fed with the flesh of *Vipers* or *Snakes*. 2. By Preparation of Humors by the *Herba Kumgudis*, an Herb so called, with *Fumitory*, boyled in whey, *Straw-berry water*, *Dodder-water*, Decoction of *Tamarisk*. 3. By Evacuation, both by Blood-letting, which must be Practised in the Spring, *viz.* In both Arms and on the Ankle: and by Purgation, where extract of *Blood-Hellebore* and whey with *Epithymum* boyled therein are good; likewise by the *Hemorrhoides*. 4. By use of *Bathes*, of fresh water, and of brimstone waters &c. 5. By giving appropriate Medicaments, *viz.* *Hares-blood* hor, salts *Iberiacal*, *Treacle*, *Bezoarticum Animale*, or *Bezar-stone*. 6. By Mitigation of the Symptomes: of which in their peculiar places. 7. By burning, of which see Authors.

As for the Differences there are four sorts thereof.

I. *Alopecia*, in which is an obscure redness, swelling of the Face, redness of Eyes, bleeding at the Nose. It springs from blood and is more gentle than the rest.

II. *Tyria*, so called from the sealy Serpent *Tyrus*, which casts of his Skin in the Spring. In this, there is whiteness, Scales, dandruffe. It springs from *Flegm*.

III. *Leonina*, so termed from the Ruggedness

gedness of the Lyons for-head. In which are prickings, bitings, Tetter. It arises from Choller and comes speedily to the Augment.

IIII. *Elephantiasis*, peculiarly so called, being greater than the rest and slower in its Augmentation, has its original from Melancholy, and is known by a cloudy blackness, knots and stupidity of the Patient. These sorts are seldom separated, and most frequently Joyned together.

Title, II. Of Diseases of the Skin.

Chap. 1: Of Lentigines, Epbelides, Nævi-materni, Infantum Macule.

A Nother kind of external Diseases, are the disorders of the Skin under which are comprehended *Lentigines*, *Epbelides*, *Nævi Materni*, *Macula Infantum* *Macula Hepaticæ*, *Pruritus*, and *Malus Odor*.

I. *Lentigines*, Freckles, Are small speck of a yellowish brown color for the most part, seated sometimes in the Face, sometimes on the breast, sometimes on the hands. They are known by the description, and because they are subject to ruddy people and such as are yellow-hair'd. They arise from blood adust, either by inward causes, or the Suns heat, Occupying the Scarf-skin, especially of the forehead, because being there thicker than ordinary, it retains the Vapours longer. They are Cured by the waters of *Elder-flowers*, *Bean-flowers*, and *Scrofularia*. By Goats and Cowes-milk mingled with powder of Glafs. With *Cherry-tree-Gum* dissolved in strong Vinegar, with a little *Oxten-meal*. With these they must be washed or anoynted.

II. *Epbelides*, are brown spots on Women with Child, which quarter upon their Foreheads chiefly, their temples or Cheekes, as large many times as an hand-breadth. They are known, by the presence of such Symptoms as are wont to afflict Women with child, especially loathing of wine and meat, frequent spittings, and gnawings in the sto-

mach. They arise from suppression of courses: in Virgins sometimes from eating of *Beetes*. A Pap made of the powder of *Bayberries* and *Toad-stool-water* is commended, being imeared on in a Bath.

III. *Nævi Materni*, are spots and marks imprinted upon the Child in the womb by the Mothers Imagination. They are abiterated either by the *After-birth while tis hot*, or the blood thereof: more easily, if privately, as the common people imagine: or the distilled water of *Caryophyllata Montana*, if the infant be washed therewith; or with the menstrual blood.

IIII. *Macula Infantum Volaticæ*, which Nurses call the *Red-come*, are red and purple spots, which creep up and down the bodies of young Infants. And if they touch any Orifice of the body as the Mouth, Nostrils, Eyes, eares, tis counted a deadly sign. For Prevention the Orifices must be wet with *Rose-water* tinctured with a little *Saffron*.

Chap. 2. Of the Maculæ Hepaticæ, Itch, and bad smels.

M Acula Hepaticæ, or Liver-spots, are brown spots sometimes appearing and then vanishing, with a slight roughness of the skin, and falling of scales. They are known by the description. Arise from a thick blood, which seeing it cannot be assimilated, it sends forth what is Excrementitious into the skin: if they continue long, they are accompanied with quartan Agues. They are Cured with Diet, and after universal Medicaments, with *bathes*, before which *Treacle* must be taken; and afterward, they must beointed with green *Mustard-feed*, reduced with water into the form of Pap, which must presently be washed off, so soon as it raises heat. Also *Mans-blood* distilled with *Brest-milke*, is good.

II. *Itch*, is a pain which stirs up a desire of scratching, without any roughness or Exulceration of the SKIN. The SUBJECT is, sometimes the whol Body; but especially the soles of the Feet, because they are covered with a great and broad Tendon, and with an hard Skin, so that the Humors have not egress. Tis KNOWN, by the sense. It arises, either from Choller, or thin salt *Flegm*, so as it may insinuate it self between the smallest particles; but clammy and roeping, that it

F may

may stick faster to the parts: which is bred of
alt Meats, and Hot, through fault of an hot
and Dry Liver. The CURE is seldom per-
formed upon decrepit persons. None at al,
in such as have the Consumption, if it follow
after Costiveness. Tis performed, 1. By
Attemperation of Humors, by Goats-Milk
Whey, and Syrup of-Fumitory. 2. By *Eva-
cuation of the antecedent Cause*, by Jalap
and Syrup of Peach-flowers. By Hemor-
rhoides and courses provoked, if their stop-
page have been the Cause. 3. By *Mitigation*
with *fresh-water bathes*, into which Mortar
is to be cast, and the Oyntment of Hartman-
nus. 4. By *Discussion* with the said Baths,
wherein Pelitory of the Wal, Mallows, sharp-
pointed Dock. Alum, Sulfur, Vitriol &c.
must be put.

III. *Bad smel Vapors*, sometimes from the
whole Body, sometime from its parts, as the
Arm-pits, Privities, Feet. From the whole
Body, either because of some propriety of
temper, or by reason of the blood and seed
being corrupted in the Womb, or through
some accident during the time of a Womans
Belly-bearing. From the Parts by afflux of
Excrementitious Humors, in moist bodies,
which being thrust thither, because they can-
not freely exhale, they conceive putrefaction
and stench. In the Cure regard is to be had
of universal Remedies. Let the Diet encline
to dryness and resist Putrefaction. Let also
the foresaid parts be often washed with a De-
coction of Scabious, Mirrb, Guaiacum; and
anoynted with an Oyntment of Oyce-Roots,
Lignum-Aloes, Balsom of Citrons, and
Nutmeg compounded together, or let them
be sprinkled with Pouders.

Title, III. Of the Dis- eases incident to the Hair.

Chap. 1. Of falling off of the Hair.

THE third kind of external Diseases, are
those of the Hair under which are com-
prehended, *Shedding of the Hair*, *Graynes*
of Hair, *Dandruff*, and the *Plica*.

Shedding of the Hairs, is when they do for
certain Causes fall from the Body. It is divi-

ded into certain sorts, viz. *Desuvium*,
Calvities, *Area*, and *Tinea*.

I. *Desuvium*, is such a falling of the
Hairs, that either all or most of the Hairs,
fal of here and there in several places. It is
known most easily. It arises from divers
Causes. 1. From defect of nourishment, as
is seen in persons having the Consumption,
and such as are sick of a Malignant Fever.
In the Consumption there is no Remedy. In
other sorts, the Head must be frequently
rubbed, that the nourishment may be brought
thither. The Head must be washed with a
Decoction of Capillary Herbs. 2. From the
Rarity of Humors which Eate and corrode
the Roots of the Hairs. In which case, uni-
versal Remedies being premised, things mo-
derately Discussing are to be used. *Ladanum*
is to be mixed with Oyntments. 3. From
the Rarity of the Skin. Then such things as
thicken the Skin, as *Ladanum*, Oyl of Ma-
stich, and Myrtles, a Decoction of the Roots
of Burdock, made in Lie.

II. *Calvities*, *Baldness*, is when the Hairs
fal wholly of from the fore part of the Head.
Tis known by the Eye-sight. It Arises from
defect of Aliment, dryness of the Brain, ei-
ther through Age, or some violent cause, as
too much use of carnal Embracements.
There is no Cure of baldness: yet it may be
prevented and deferred. 1. By good Diet, in
which biting, salt, and astringent things,
strong Wine, too much venery, ought to be
avoided. 2. By supplying nutriment to the
Hairs, by such things as correct the dryness
of the Brain. 3. By drawing Aliment to the
Roots of the Hair. In which case Moderate
frictions are good, and drawers joynd with
things moderately astringent. *Ladanum* dis-
solved in Oyl of Mastich. Washing the Head
with a Decoction of Fanugreek &c.

III. *Area*, is the falling off of the Hair from
certain parts of the Head, so as to leave bare &
bald patches, here and there; arising from a
bad and corrupt Humor, fretting the Roots
of the Hairs. It is known by the sight, and
by the differences; of which anon. It arises
from the Humor named in the description,
especially from Flegm, Salt, adust, and pu-
trified, through fault of the Brain and an hot
Liver, and corrupt meates, as toad stools &c.
The Cure is easie, if the Disease be fresh. If
the place being rubbed, quickly grows red.
If the Extremities of the bald patches which
border upon the hairy parts, begin to shoot
forth

forth Hair afresh. *Hard*, if the Skin be thick, fattish, and wholly void of Hair. If the Disease be old. *None* if the place being rub'd, grows not red. *Tis Performed.* 1. By Evacuation of the *Vitious Humor*, by purges and *Apoplegmatisms*. 2. By driving back the said *Humor*, while it is in Flux. 3. By digesting the same, when it is fastened into the Skin by Medicines hot, and of thin parts, not very dry, least the Aliment be Discussed. First the *Weaker* sort as *Southern-wood*, reed-*Roots* burnt; afterward the *stronger*, *Mustard*, *Water-Cresses*, *white-Lilly Roots* which ought at first to be more Liquid, and left so long on, til some alteration be perceived in the Skin. *Bears-Grease* helps by a secret Propriety, of which with the Hairs of a Bear burnt, Oyl of *Mastich-tree*, and other things before recited, an Oyntment may be made. *Tis divided* two manner of waies. 1. Into *Alopecia*, which keeps in its spreading any kind of Figure, and happens in the beard and hair of the Head, in any Age: And *Ophiosis*, which begins on the hind part of the Head, exceeds not the length, of two fingers, creeps towards the eares with two heads, and in some as far as to the Fore-head, til the two Heads meet before. It chiefly haunts Infants. Herein also the Skin is superficially Excoriated, the Color thereof changed, and if it be pricked, Wheyish blood Issues forth. 2. Into that which springs from the *Whore-masters Pox*; that which comes from the *Leptosis* which is incurable; and that which comes from other gentler Causes.

IIII. *Tinea*, when the Hairs fall off, one by one, being Eaten and consumed by certain Worms. *Tis known* because the Hairs are shorter one than another and uneven. Small worms thick in their ends. The color of the Hair becomes like that of Ashes. It arises from Excrementitious Humors, penetrating into the Hairs with their nourishment, and therein by Heat changed into worms. *Tis Cured*, Universal Remedies being premised, by Absterision with decoction of great *Nettle*, small *Centory*, &c.

Chap. 2. Of the *Porrigo*, and *Plica*.

Porrigo, Dandruff, is when a man scratches or Comes his Head, and there falls somewhat out like Bran. It arises from serous,

Cholerick, and Flegmatick Humors, which are carried to the Head with the nourishment of the Hairs; the more thin parts being Discussed, the thicker stick about the Hairs, and go into dandruff. They are attracted by an over-hot brain. The Cure, is by Evacuation of the peccant matter. By Discussion, and Absterision, with some astringents. A Decoction of *Vetches* and *Mallows*, is good in this Case.

II. *Plica*, is a tangling and folding of the Hairs into *Else-locks* or thickly thripped and matted bunches, arising from plenty of matter profitable to nourish the Hairs but unprofitable for nutriment of the Body, and causing divers Symptomes. It is known by bunchings and complications of the Hair, pains vexing the Joynts and bones, convulsions, plenty of Lice. The Nails of the great Toes are rough and scaly, black, like a *Goat-Bucks-Horn*. The Cause cannot sufficiently be explained. *Tis thought* to be a Matter affording plenty of nourishment to the Hairs, but such as is hurtful to the Body: as familiar to the Hairs as in the running *Gout*. Wheyish matter is to the joynts; or Polygon and bone-glew to the Bones; whereupon, if the Haires be shaven, they shed blood. It arises from a peculiar corruption of the place, Aire, and water. *Tis carryed* thither with the Blood; sometimes *Witchcraft* may be joyned. The Cure is *hopeful*, if there be no pains. For so Excrementitious matter is thrust forth into the hairs, and the Vertue becomes stronger. There is no perfect Cure, seeing the Causes are not sufficiently known. *Tis made worse* by Purgations and Blood-letting. Some wash the Head with a Decoction of *Bears-breech*. A certain Country man used Baths to Cure this infirmity in which the Patients grew at first hairy, and then their hairs being cut off, they were Cured. See *Hercules Saxonia*.



Title, III. Of *Ulcers* in Particular.

Chap. 1. Of the *Gangrena*.

The fourth kind of external Diseases are *Ulcers*, under which are comprehended

Gangrena, Spbacelus, and Ambustio. A *Gangrene* is a corruption of the soft parts especially, tending to mortification; proceeding from the Corruption, Suffocation, Dissipation, or extinction of the natural Heat in the Part.

The **SIGNES** are the change of the Color in the part to black and blue, Imminution or Lessening of the Pulse and Sense, Abolition of the Heat. Motion remains, if the Head of the Muscle be intire: nor is there alwaies a tumor, but there is alwaies an Ulcer of necessity. The *Cause* is, the Corruption, Suffocation, Dissipation and Extinction of natural Heat in the part.

The **CURE** is evermore *Difficult*, especially if it be with afflux of Humors. If it be in the moister parts of the Body. If it be Joynd with the dropsie. It is accomplished. 1. By convenient Diet. 2. By due Evacuation with Blood-letting and Purging. 3. By *Strenktening* the Heart against putrid vapors. 4. By *Defending* the sound part against the spreading Corruption by Defensatives and Antidotes.

The *Differences* are taken from the Causes, which are either *External* or *Internal*.

I. One kind proceeds from *Too much cold oppressing the natural Heat of the part.* It is known in that suddenly a sharp and prickling pain afflicts the patient. The redness of the part is soon changed into a Leaden-color a coldness and nummedness is perceived as it were in a Quartan Ague. *Tis cured.* 1. By plunging the cold part into cold water or rubbing the same therewith. 2. By drinking down hot potions to procure gentle sweates to excite the natural heat. 3. After the heat is returned, by rubbing the part with warme liquors to which intent a Decoction of Turneps is good. 4. If the part be already gangrenated, the parts must be scarified and fomented with hot cardiack medicaments.

II. Another sort springs from *bindings which intercept the Blood and spirits.* In the Cure, the ligatures must be losed, Medicaments dissolutive and resisting putrefaction must be applied. If the gangrene have made progress, we must act according to the symptoms.

III. Another springs from *defect of Nutriments or Atrophia* so called. *Tis known* in that, excepting leannels, neither tumor, heat, nor paine are perceived. when pustiles arise, paine and fever follows. In the *Cure*, prescribe a diet hot and moist, smear the Body

with moistening oils. Draw nourishment to the part by Cupping-glasses without scarrification, and anoynting with oyl of Earth-worms &c. If the Gangrain proceed, scarifie the part, and do as shal be here after specified.

III. Another sort springs from *External Heat which happens after great burnings.* If so, in the *Cure* prescribe a cool diet. Temper and purge hot humors scarrifie the part, and soone after wash it &c. Proceed not to an actual Cautery unless necessity compel.

V. Another springs from *the biting of venomous Beasts.* *Tis known* by relation of the patient, In the *Cure.* 1. The venome is to be drawn out by an actual Cautery, or scarrification. Medicaments resisting putrefaction, and such as draw, are to be applied, 3. *Ulcers* arising from scarrification or burning must be *Cleansed*, in which case we must not forget to use spirit of wine.

VI. Another sort springs from *the flowing of malignaut Humors into the external parts.* *Tis known* hereby, that in parts, especially those which are in the Extremety of the body, a blader appears, under which there is a black spot. there is a continual fever, fainting away &c. *Tis Cured.* 1. By a drying Diet, into which coolling cordial Medicaments are to be put. 2. By *Blood-letting* and evacuation, if need be. 3. By sudorificks, which must be lustily plied in this Case. Dittamus of creet, Vincetoricum, and Treacle, are good in this Case. 4. By *Scarifications, Cupping-glasses,* and application of Leeches to the part affected, if blood be not otherwise, sufficiently drawn forth. 5. By *washing* the same, after Incision with salt water, or some other fomentation, according to the greatness of the Corruption. 6. By applying *Unguentum Egyptianum,* or som resolving, drying and putrefaction hindering Cataplasmes, after washing. 7. If no amendment appear, *Cauticks* actual or potential, such as *Butter of Antimony,* or *Mercury Dissolved in Aqua fortis,* and precipitated with oyl of tartar, are to be applied. 8. By timely *Removing the Crust,* least new putrefaction arise thereunder.

Chap. 2. Of the Spbacelus.

S Phacelus is a perfect Mortification of a Part which seases not only the softer parts of the Body, but the bones themselves.

The **SIGNES** are, there is no sence in the part, whether it be cut or burnt. Coldness

nels, sharpness, and blackness of the Flesh. At last it smells like a dead Carcass, and the skin is by the fingers separated from the flesh beneath it.

The CURE consists in cutting off, the manner of which see in Practitioners. And then. 1. Some part of the sound part, being very well bound must be cut off, rather than the cutting should be practised upon the infected part. 2. Section must be made in the fingers and Toes. 3. In the Feet, if the Disease reach above the ankle, the thigh must be cut off below the Knee. 4. In the Arme, very little of the sound part must be cut off &c. See *Fabricius Hildanus*, in his Treatise of the *Gangrena* and *Sphacelus*.

Chap. 3. Of Burnings.

Combustio, *Burning*; is a solution of Continuity in the Scarf-skin and commonly in the skin it self, sometimes in the Muscles, Veins, Arteries or Nerves, by the force of fire.

Touching the Signs tis needless to speak, seeing burning is manifest of it self. The Cause is either Fire, Scalding water, Oyl or melted metal or Fat &c. The Cure varies according to the differences. In the first place, the fire must be fetcht out. In the next place least pain attract the Humors and blood, we must use repellens and defensatives. Then we must by Diet, purging, blood-letting, Cupping-Glasses and other means diminish the same. A Mucilage of Quince-seeds, Extracted with Rose-water, and mixed with Line-seed Oyl, must be use at the beginning, which wil facilitate all Indications.

The Differences of burnings are Various.

I. One sort is very slight, which is known hereby, that the burning thing which caused it, was light, the skin is red, the pain most bitter and pricking, the place is puffed up, pustles arise full of clear and white water. At last the Scarf-skin comes off. Tis Cured. 1. By taking out the fire, that no Pustles may arise. Which is performed, either by steeping the Member in hot water, or by Application of a Linnen Gloath wet in Lie, or Application of Onions beaten in a Mortar with salt; which nevertheless, is not good for burns in the Eyes. Exceeding Commendation is given to an Oynment made of one part of Oyl-Olive, and two parts of whites of Eggs, beaten together, and

frequently anointed on, with the Feather of an Hen. 2. By opening the bladders, the third day after their arising, when the Scarf-skin begins to breed on fresh.

I. Another sort is *indifferent great*, which is known hereby, in that the part is forthwith swelled and inflamed. Pustles arise, wherein is contained a thin subtile water of a yellowish color, the Patient complains his skin is stretched. Tis Cured. 1. By Cutting the Pustles, that the hot and sharp Humor may flow out. 2. By application of *Defensatives*, least Humors and blood may flow to the part affected. 3. By Application of the Oyntment of *Fabricius*, made of three ounces of fresh butter, washed in Rose-water. Oyl of Violets, Yolke of Eggs, and of sweet Almonds, of each half an ounce. Barley meal one ounce and half. Saffron one scruple, Mucilage of Quince seeds one ounce. Wax as much as shal suffice.

III. Another is *extream*, which is known hereby, that in the very moment that the thing burning sticks to the body, pustles arise, but fall soon after, the skin beneath is black or livid and Lead-colored. If pricked, it feels dully. When the Crust falls off, a putrid and profound Ulcer arises. Tis Cured. 1. By cutting the pustles or bladders, that the water which is contained in them, may be dried up. 2. By Separation of the Escar the second or third day, which if it cannot be effected, it must in many places be cut with a Pen-knife. See *Fabricius* his Oyntment. 3. If a *Gangrena* begin, the Cure must be applied thereunto. 4. The Escar being separated, the Ulcer must be cleansed, filled with flesh, and covered with a Skar.

III. Another is, from *Gunpowder*, in which the grains of the powder, must be taken out with a Needle, or some other Instrument. If they cannot be taken out, the pustles must be suffered to arise. If they arise not, they must be raised, by vesicatories, and cut; the powder must be taken forth, and the place must be washed, with a Decoction of Fenugreek &c. Another sort comes from thunder, in which case sweat must be provoked by some Antidote. The Arteries, Lips, Tongue, Nostrils, must be anointed with Treacle wine. The Escar being removed, *Mundificatives* and *flesh-breeders corrected with Bezoarticks* are to be applied. If a bone be broken, the Vulgar atringent Cataplasmes are to be avoided.

V. One sort is of the Face, in which the Medicine of two Eg whites, Oyl of Roses two ounces, Rose water one ounce has place. Another is of the Eyes, in which case warm brest

breft Milk must be dropped on. If a Cruft be raised, we must use Emollient fomentations, lest the Eye lids be drawn back. The skin must many times, with both hands, be drawn back. Another, is of the *Joynts*, in which the afflux of Humors must be stopped. Pain asswaging Topicks are to be applied; least the Nerves be contracted, or the joynt become crooked, we must be very Vigilant &c. But touching all these see *Wilhelmus Fabricius Hildanus his Treatise of Burnings*.



Title, V. Of Luxations in Particular.

Chap. 1. Of Luxations of the Jaw-bone, the Clavicula and the Vertebrae.

THe first kind of external Diseases are *Luxations*; and they either of *upper Limbs* or of the *Lower*. To the former belong, the *Luxation* or *Disjoynting* of the *Jaw-bone*, the *Clavicula*, the *Spine* and *Ribs*, the *Shoulder*, the *Arms*, the *Hands* and *finger joynts*.

1. The *Luxation* of the *Jaw-bone* is caused towards the fore part of the *Face*, the foremost and sharp process like a beak, being slipr beneath the *Jugular*. Tis known hereby, both because the nether *Jaw* sticks out foremost, and the process sticks out by the said *Jaw*: as also because, the mouth continues alwaies open. It arises from too much opening the mouth and gaping, and stretching the *Jaws*, whether it be by yawning, or by taking some burthen by the teeth, and lifting it high up; yet is it hardly done, because of the strength of the *Muscles*, wherewith it is fastened to the upper parts. The *Cure* is undertaken. 1. By *Reposition*, least the *Belly* void choler, or vomiting be raised; and it must be suddenly procured, least the *Brain* be drawn to consent, by reason of the *Nerves* inserted into the temporal *Muscles*: touching which, see *Authors*. 2. By *Precaution* of *Inflammation* and other *Symptomes*. If the *Patients* neck be pained, a vein must be opened in the *Arme*. 3. By *Retention* of the replaced *Bone* &c. Tis divided two manner of waies. 1. Into that of *one side* of the *Jaw*; and then the *Jaw* with the *Chin* is bent

towards one side, the mouth is distorted, the teeth answer not one to another. And into that of *both sides* of the *Jawes*; and then the whole with the *chin* hangs over towards the breast. The temporal *Muscles* are stiff. A certain eminency is perceived in both parts. 2. Into that which happens only to *persons* of *ripe years*, and that has been here described: and into that which betides *Infants*. in whom because the *Mandibula* is divided into two parts, and is joynted together in the middle of the *Chin* by a large gristle, the said gristle being loosened by afflux of *Humors*; or the bone being separated from the gristle, which in grown persons turns to a bone, it may be disjoynted towards the right or left side.

II. The *Clavicula* is disjoynted either towards the *Breast-bone*, or contrarywise towards the top of the *Shoulder-blade*; but seldom, by reason of its firme connexion with both the bones. Tis known, because the shoulder swels, and in the place from whence the *Clavicula* is slipr, there is a manifest *Cavity*. Tis Cured with difficulty, and for the most part, the *Arme* is deficient in some of its motions. A strong binding must be used.

III. *Luxation* of the *Vertebrae*, is either *outwards*, or *inwards*. Tis easily Cured in *Children*, hardly in *persons* grown up.

Chap. 2. Of Luxation of the Humerus, Cubitus, Radius, and the Fingers.

TO the *Luxation* of the upper *Limbs* there likewise belongs, *Luxation* of the *Humerus*, *Cubitus*, *Radius* and *Fingers*.

1. The *Luxation* of the *Humerus* or *Shoulder* is when the *Head* thereof, which is round, inserted into a shallow *Cavity*, and fenced with a very loose *Ligament*, slips out of its proper place. It arises, for the most part, from a violent cause, stretching of the *Arme* &c. Tis divided into that which is caused under the *Arm-pit*, and then somewhat round and hard, is sensibly felt under the *Arme*, the *Cubitus* suddenly becomes more distant from the *Ribs*. It may be restored either by turning round the *Head* of the *Humerus* about the neck of the *Scapula*, or by the *Heel*, or by a *Ladder*, or a *pestle*, or by putting the *Shoulder* under &c. And into that which is made forward. Then there is in the hinder part an *Unusual Cavity*,
and

& in the fore part there is seen an over great protuberancy, the Head of the *Humerus* is distorted to the breast. The *Cubitus* inclines to the hinder parts. In the Restitution, a contrary motion is to be made; and although the member be not made shorter, yet because we unfold and loosen the Head, some extension must be made, though but small. See *Aquapendent*.

II. *Luxation* of the *Cubitus* seldom happens, both because it is a joint variously figured; as also because the ligaments are exceeding strait; and therefore tis likewise reposed in its seat with difficulty. It *Happens*. 1. Either towards the fore-part: and then we cannot bend our Arm being stretched forth, and our Cubit is made shorter. An unwonted Tumor appears in the fore part, and a Cavity in the hinder part. Tis *Cured* by Extension Obliquely, and reposition of which there are divers waies. Either towards the *hinder part*, and then a Tumor appears in the hinder part, a Cavity in the former. By *Extension*, which is hard in this Case, when the fresh Dislocation is reposed only by the hands. 2. Or towards the *outside*. Then the Tumor is in on the outside, a Cavity on the Inside. Or towards the *Inside*, and then all things go contrary. And extension being made, the impulse of the *Cubitus* ought to be made, to the contrary side. Anadyne, and astringent Medicaments must be applied after the Reposition. 4. Or the *Radius* follows, and then the distance of the *Cubitus* form the *Radius* is perceived by the touch; or it subsists.

III. The *Luxation* of the *Radius* is wont to happen, towards the external part. And then a swelling appears in the outward part, the *Cubitus* and *Radius* stand gaping one from another. Extension being made, tis easily restored to its place.

IIII. The *Wrist* is dislocated. 1. Either towards the *hinder part*. Then the fingers cannot be stretched, because the Tendons and nerves are compressed by the bones. Or to the *fore part*. Then there's a Tumor in the fore-part of the Fingers. The fingers cannot be bent. 2. Either *Inward* or *Outward*. Then the swelling is in that part, the Cavity in the contrary part. See the Cure in *Aqua pendent*.

V. The *Fingers* are disjoyned towards the fore part, the hinder part, and side-waies. The *Signs* are most manifest because those Joints are without *Flesh*.

Chap III. Of Luxations of the Thigh, Knee, and Ankle.

TO the Luxations of the nether Limbs pertain, the Luxations of the *Thigh*, the *Knee*, and the *Ankle*.

I. The *Thigh* is hardly dislocated, both because of most strong Muscles, and the abundance of their flesh; also because of the deepness of the socket of the receiving bone; and likewise because of two strait and short Ligaments. Tis likewise restored with *Difficulty*, especially if the Luxation contract a callus and so grow hard, and humors flow in about the Head of the Thigh. Reposition is effected, either without extension, or with extension performed by the Hands, or by certain cords fit for that purpose. The Thigh is dislocated.

1. Either toward the *fore-side*. Then the Thigh being stretched out cannot be drawn in, because the *Musculi Inflexentes*, are compressed by the Head of the Thigh-bone. The Urin is suppressed. The Buttocks appear rugged. Or towards the *Hinder-side*. Then the Thigh cannot be held forth, because the *Musculi extendentes* are affected. That leg becomes shorter than the other, because the Cavity is in the lower, the Head in the upper place. The Heel does not touch the ground. The Head of the Thigh appears through the Buttock. 2. Or *inwardly*, then the Knee, the Leg and Foot bear outwards. The Thighs cannot be bowed towards the groins. Just against that place which is between the stones and Fundament, an evident Tumor, appears, in the outer part of the *Sinus*. Or *externally*. Then between the Cod and Fundament, the part makes a Cavity; but by the Buttocks, tis raised into a Tumor. The Knee, Foot, and Leg bend inwards. The Heel touches not the ground, but the Sole.

II. The *Knee* doth not so soon fall out, because it has too Ligaments; also it has an Head and a double cavity. Tis dislocated, 1. Either *imperfectly*, where impulse is required only to the contrary part. Or *perfectly*, and when extension is necessary. 2. Or into the *external*, or *internal*, or *Back* part. Then the Tumor is in an unwonted place, the *Sinus* appears in a contrary situation: the figure is departed, the motions are weakened and perish.

III. The *Talus* or *Ankle* is Dislocated, 1. Towards the inside. Then the lower part of the

the foot, is turned externally, or towards the *outside*, and there tis contrarily turned. 2. Towards the forepart. Then a broad and strong tendon in the Heel, becomes hard and stretched, and the foot becomes less. Towards the *binderpart*; then because the joint is slip to the Heele, the Heel is hidden, the sole of the foot is greater and the foot longer. The Cure ought to be made by Extension and Reposition.

IIII. The Bones of the *Pedum* and *Tarsus* never suffer Luxation. And those of the *Toes*, seldome, because they are underproped with most strong ligaments and many tendons.



Title VI Of Fractures in Specie.

Chap. 1. Of the more usual Fractures of the Bodies.

THe third kind of External Diseases are *Fractures of bones*; which are either *more* or *less* frequent. To the more frequent sort belong.

I. The Fractures of the *Brachium* viz. that Bone which is between the Elbow and the wrist; which if it happen in *both the bones*, seeing they have no proper stay, and the neighboring parts are easily hurt, it is the more dangerous: if in *one*, and that the uppermost which needs less extension, it is lesse dangerous: if in the *nethermost*, it is so likewise because the Elbow serves for a stay; and a swathing band is more safely hung on. The Cure requires *Extension* and *Direction of the broken bone*, with joyning together, and reposition. It grows together within the space of thirty daies.

II. Of the *Humerus* or *shoulder*, whose bone being great, and requiring long time to breed a Callus, it is forty daies in growing together.

III. Of the *Crus* or that part which reaches from the knee to the foot. In which either *both bones* are broken; and the whole leg may be bowed in: or the *Tibia* or shank bone, and the whole bone, as in a place without flesh, may easily be seene. And it is cured with greater difficulty, seeing there is need of greater extension. Or the *Fibula*, and the broken part

bendes inward, and the Patient can sooner set his foot to the ground because the *Tibia* bears most of the bodies weight. These bones grow together within the space of forty daies.

IIII. Of the *Femur* or *Tibia*, which if it be broken *towards the knee* or in the middle and diligent care be taken, they escape without halting. If towards the *Hip* commonly they halt after it. Both because, the bowing tending outwards, it is easily crooked Towards the inside, and towards the outside it bunches out like a bow as also because, being but one single bone, it cannot easily be kept in its place, It grows together in the space of fifty daies.

Chap. 2. Of less Frequent Fractures.

TO the less ordinary Fractures, there appertain the Fractures of.

I. The *Nose*, which is either equally flatted, so as to make a saddle-Nose; or it is broke only on *the one side*: or it is writhen aside by the *Gristle*: or the *bones* thereof are broke into *small fitters*. There is Joyned, sometimes a wound, and sometimes an Ulcer is raised within the *Nostrils*. Unless the *Nose* be immediately rectified, it must for ever remain deformed.

II. Of the lower *Jaw-bone*, whose bone is either broken so athwart, that the *Bones nevertheless do in some measure hold together*: or so, that *one bone sticks out above another*, and one tooth sticks out beyond another. They are consolidated within twenty dayes, unless Inflammation happen. Also the teeth remain sound.

III. Of the *Clavicula*, or channel bone, which is broken either athwart, and is easily reduced into its natural seat by extending and compressing the same with a mans fingers: or *long-waies*, which has alwaies some *Eminency*, which can hardly be brought into order. Its fracture is knowne by the touch and by the pian. It is soddered together within the space of twenty daies.

IIII. Of the *Scapula* and that either in *respect of the shoulder tip*. and then Inequality is perceived, if the hurt part be compared with the sound or in *respect of the broad part*. Then a certain cavity is perceived by the touch. the Arme just against it, is benumbed. If the fracture be in the *neck of the Scapula*, or in the *Jointing of the shoulder*, Inflammation is soon caused, because of the veins, Arteries and

and nerves which spring from the Vertebraes of the Neck.

V. Of the *Brest-bone*, whose fracture is known, by the bones giving way when pressed with the finger, by shortness of breath, &c. and it is dangerous because of the Neighbourhood of the noble parts.

VI. Of the *Ribs* which are either so broken that the extremities of the broken bones, do neither go in, nor stick out: And then few are either Feverish or spit blood. Or so as that the *Ends of the Bones* are out of their places. Then the flesh above the broken Rib is blown and heaved up: and if the place be pressed with the hand, a noise is heard of the departing Air. Inflammation, Feavers, Impostumes, do for the most part follow. Or the *whole Ribs* are not broken. Then there is neither great pain, nor a Fever.

VII. Of the *Back-bone*, which frequently, by reason of the hurt ensuing to the spinal

marrow, the Membranes and the Nerves, especially if the fracture happen by the *Vertebra's* of the Neck, proves *deadly*: especially if a palsy either of the Arms and Hands, or of the Legs and Feet, do follow thereupon.

VIII. Of the *Patella* or *Whirl-bone* of the Knee, which is known, by inability to go, and an hollowness which is perceived in the place of the fracture. It happens either *long way*; and then the bones are easily joyned together again. Or *athwart* or *slanting*. Then no art can so help it, as to hinder the Patient from halting.

IX. Of the *Bones of the Feet*, which is wont to be caused by an heavy and strong thug. 'Tis easily known by sight and touch, because the parts are fleshless. It is not so dangerous. See *Galen upon Hippocrates of the Joints and Fractures*.

And so much shal suffice to have spoken, touching External Diseases.

PRAGMATICAL PHYSICK

Tending Feavers

THE

THE

Title I. Of Feaver in

General

THE



THE
SEVENTH BOOK
OF THE
IDEA
OF
PRACTICAL PHYSICK.

Touching Feavers.



Hitherto we have treated of the external Diseases of the Body. The internal are either *universal*, which affect the whole Body; or *Particular*, which vex some parts only. The *Universal* are *Feavers*.

A Feaver is considered *generally* or *pecially*. Generally considered, 'tis divided into *Non-putrid* and *Putrid*, *Hætick*, *Malignant*, and *Pestilential*.



Title, I. *Of Feavers in General.*

A Feaver in general, is an hot Distemper of the whole Body, arising from an Heat Preternaturally kindled in the heart, and by means of the spirits and blood, through

the Veins and Arteries diffused into the whole Body, and hurting the natural actions thereof by a Crowd of Symptoms.

The Part affected is the Heart, wherein the heat is first kindled, and soon after the whole Body, at least in respect of the noble parts, sometimes. For the Heat being diffused, possesses the parts, either Habitually or Habitually. Also their temper consisting in the innate and influent Heat, is changed. Now this Distemper is joyned sometimes with dryness, other whiles with Moisture. Hence, though the feaverish heat do alwaies tend to dryness: yet oft times the disposition of the Body, upon which that heat acts, and the moisture, do hinder the Body from falling into a Morbifick Dryness.

The Cause is, whatsoever kindles Heat in the Body. Now heat is kindled. 1. By Motion, whiles the rest of the parts, by frequent smiting one against another, causing a conflux of more Humors than can be dissolved, do grow hot. 2. By Putrefaction, while by the external Heat, the internal is called forth.

3. By

I. One sort comes from *Cold Air striatning the skin*. Then the beginning is without shivering. The Urine and pulse are little changed, the Heat is more moderate in the state. 'Tis Cured by removing the Cause.

II. Another springs from *Buboes*, which is known by the presence of Buboes, by a swift and great pulse, by much heat, by a ruddy Face. 'Tis Cured by blood-letting, by which if blood be sufficiently taken away, the Bubo appearing a little, vanishes away by the use of repellors or relaxers: if not, it must by fomentations be brought to suppuration. *Vide B. 2. de Bubone.*

III. Another from *straitness* of the skin, which is known by the hardness and compactness of the Patients skin, other things being as in other persons healthy. It arises from plenty of blood, cold binding, or dryness. 'Tis Cured. 1. By *Blood-letting*, if the blood offend in quantity. 2. By *Purgation*, cutters being premised, where there is plenty of thick Humors, and sweat is wont to follow. 3. By relaxation with hot and moist things, temperate baths, moderate frictions, frequent washing, if it proceed from cold.

IIII. From *Crudity*, and that *nidorous*, which is known by the presence of such signs as attend a Diseased Stomach. 'Tis Cured, 1. By *Vomit*, if stomach sickness and Aptitude to Vomit, be present. 2. By *Purgation*, if there be danger in Vomiting. 3. By *Corroboration*, with Medicaments whose quality is opposite to the peccant Humor.

V. Another springs from *Heat of weather*, Anger, *Sad Pensiveness*, *Watchings*, *Wearyness*, &c. Of al which, consult with Practitioners.

Chap. 2. Of the Fever Synocha Simplex.

THe fever Synocha simple, or the Ephemera of many daies, is a Fever without putrefaction, arising of the Boiling and working of the spirits and blood, without remission, lasting three, four, or more daies.

'Tis termed also *Inflativa* or *Puff-up*, because when the blood works and boyles, the Vessels are distended, and a wearyness of the body is perceived.

Its **SIGNS** are wearyness which comes of itself, without any exercise of the Body. Heaviness about the temples and forehead. A certain Itch of the Nostrils, a gentle Heat

Moistness of the skin, with distention of the Members. A pulse great, full, frequent, quick. Difficulty in fetching breath. Urine thicker and more red than ordinary.

The **CAUSE** is, the working and boyling of thin blood which arise from the hinderance of Transpiration, in a plethorick body, which sends forth many hot Vapours.

The **CURE** is not very hard, because it seizes for the most part strong bodies, or temperate ones, or such as are hot, or moist, of middle Age, of a fleshy, square, Alderman-like constitution, unless it degenerate into another sort. 'Tis *allayed and terminated*, sometimes by sweat, or by plentiful Nose-bleeding, within the fourth, or at most the seventh day; unless through some very great Error of the Patient, the Physician, or the Assistants of the sick, it turn to a putrid fever, or a greivous Disease which is wont to spring from fullness.

'Tis performed. 1. By *Blood-letting*, by which the Patient is cooled, and the encrease of Vapors is diminished: but it must be speedy, little in quantity, and divers times celebrated. 2. By *Evacuation* of the first Region, least more fumes be added to the store. *Tamarinds*, *Rhubarb*, *Syrups of Roses solutive*, *Cream of Tartar*, are good. 3. By Alteration, which ought to be performed, by cooling potions, the spirit of salt and vitriol, being mixed therewith. *Clysters*, *Oxyrrhodines*, *Epithemes*, Bathes for such as are accustomed to them, but not before the Rigor of the Feavee be over. 4. By *Corroboration*, with *Manus Christi perled*, *Diamargaritum Frigidum*, *Conserve of Roses Vitriolated*, of *Wood-sorrel* &c. 5. By a cooling and Moistening Diet.

Title, III. Of Putrid Feavers in General.

A Putrid Fever is Generally or Specially considered.

A Putrid Fever in general, is a Fever, which arises from hot Vapors, raised out of the Putrefaction of humors, which affect the heart, with a preternatural heat.

SIGNS thereof, are: *Invasion*: with shivering, and shaking, no antecedent Cause having preceded; No, nor no procatartick, unless the body be so disposed that a small matter affects it. *Accessions* and *Paroxysms* occur fits,

fits, which yet agrees not with al. The *beat* at the beginning, is not biting, by reason of suffocation; biting in the augment by reason of a Fuliginous excrement. The *Urine* is crude, or obscurely digested. The *Pulse* is at first small, the contraction swifter then the dilatation, by reason of plenty of sooty excrement. It *abates* upon sweat or some other Evacuation.

The *Causes immediate* are, putred vapors, sharp, biting, plentiful, so as they cannot be dissolved. The *Mediate* is the putrefaction of humors, whose cause. 1. In the *first assault* of the Fever, is either *their bad nature*, contracted from meats of bad juyce, which soon putrefie, from ill preparation and use of diet, and the faults of the Parts which serve concoction; or an *External agent*, where hindrance of *Transpiration* has place, or from the straitness of the pores of the skin: for hot things, in an hot place, if they have not freedom of aire, doe suddenly putrefie; or from the obstruction of the Vessels and Passages in the Body. A *Fever Ephemera*, especially in hot Natures. *Heat* arising from the Nonnatural things; *Nearness* of putrefied humors. 2. In the *Continuance*, is the fault of the parts ordained for Concoction. *Iniquation* or *Defilement* remaining after the Paroxysme, which infects the humors herein.

The *Cure* for the most part does not oppose the Fever so as to neglect the Cause, especially if the Remedies for the Fever doe encrease the Cause, unless the Fever be very great. Yet sometimes we may resist the Fever and neglect the Cause, namely when it is remiss. The safest way is so to direct the Cure to the one, as not to neglect the other. It is performed, 1. By *Blood-letting*, which must be practised, 1. For evacuation to put the blood in motion and to cool the same. 2. In continual Feavers on the third day, in intermitting Feavers after the third day; in all having first given a gentle Lenitive, if any thing reside in the first waies, and when the disease is most remiss. 3. When the evil humors are not in the first passages, but are mingled with the blood in *Vena Cava*. 4. When there is plenitude. It must be repeated the same day, if it be done for *Evacuation*: some time after, if for *Revulsion*.

II. By *Vomiting* rightly instituted, with *Aqua Benedicta Rulandi*, *Asarum* Roots &c.

III. By *Purgation*, & then Lenitives ought to precede, by reason of the stomachs weakness, and plenty of humors in the Mesaraick

Veins, and stoppage of the Belly at the beginning; either by *Clisters* or *Potions*. Stronger Medicaments ought to follow. 1. There having preceded both *Coffion*, which must be observed in Feavers, especially such as are continual and acute, according to the precept of *Hippocrates*; by which Nature assisted with art makes separation of putrid humors mingled with the blood: & *Preparation*, which opens the passages and waies by opening Medicaments (here *Cichories*, *Endives*, and *Sorrels* have place) and impediments in the humors are removed, where *syrups* of *Vinegar*, of the *Juice of Citrons*, have place, and a dram of *Spirit of Tartar compound*, which must be given with caution in choleric natures, by reason of the Treacle water. 2. Which *must be omitted*, if the Humors are not in the first passages, but mixed with the blood in the Veins. If the Humors are turgent, that is, either move to some determinate part, or are so disposed, that they may run violently into some part. For the feverish matter is wont at the beginning, though little, because like *Leven* it corrupts the rest of the humors, to be moved by nature, and either to be thrown out of the body, or to be thrust into the more ignoble parts of the body.

IV. By *sweating* provoked by *Sudorifick* medicaments; and that *not very hot*, lest the Fever be increased, yet *sufficiem*, lest the matter should be only stirred, *administered* after other evacuations, lest *Transpiration* should be more hindered. Yet is it allowable in the beginning, sometimes to give strong *sudorificks*, that the said ferment may be dissipated to dispose the patients body to sweat through the whol disease, that the body may freely transpire. To repeat it as often as need shall be, that the matter may be accustomed to expulsion. *Salt of Wormwood*, of *Centory*, of *Carduus benedictus*, *Spirit* and *Rob* or *quiddinie* of *dwarf-elder*, of *Elder*; *Magistery* of *Mother of Perle*, of *Crabs-Eyes*, *Antimonium diaphoreticum* &c. are commended.

V. *Diet*, in which are principally considerable 1. *Meat*, which ought to be of good juyce, easie of digestion, of small excrement; to that great respect behad to the patients strength, the disease, and morbidick Cause. The times of the disease it self must be observed, lest the patients strength be overwhelmed. The *Quantity*, *Quality*, and *manner* of the use, ought to be weighed. Howbeit a more liberal diet may be used, the strength of the Patient

Patient being diminished by Evacuation. A thin when it is weak by suffocation, that plenitude may be diminished, and nature the better betake her self to the Concoction of Humors. A very nourishing one, to preserve the strength. Medicamental, to drive away the Disease and its cause. At any time, when the strength is decayed, by Evacuation and fasting. In the declination or intermission, the Patients strength being suffocated by the vehemence of the Disease. 2. Drink which ought to be nourishing, in the Patients weakness. And Medicinal in reference to the Disease and its Cause. Such is, a Decoction of Barley, Oxymel, Whey corrected with Annis-seed, Fennel-seed and Cumin-seed. Cooling Juleps. In the first daies of continual Feavers little, afterwards more plentifully. In Agues, when the fit is near, none at all: least the separation and exclusion of the putrifying Humor should be hindered: when sweat is ready to break forth, hot, to further the same. The Wine in Agues must be austere and hard, because such Wine moistens, further excretions, and is more easily distributed into the body: in continual Feavers, about the beginning of Coction, little; in quartans before; in the Progress of the Disease, more. In the Declination, if there be weakness. The feaverish heat be not intense. Crudity of the matter prohibit not. Head-ach and like disorders be abient.

Chap. I. Of Continent putrid Feavers.

Article, I. Of the Synochus Putrida.

Putrid Feavers specially considered are either Continent, as Synochus putrida & Causus: or Continuae Periodicae, or Intermittents.

Synochus putrida, is a feaver arising from blood putrified in the vena cava without any periodical Remission and Intention, afflicting alike from the beginning to the End.

It is also termed Pur, Fire; because of its very great Heat. Assodes because it makes the Patient very unrestible. Taraxodes because it vexes the Sick with imaginary Apparitions. And Pericaes Puretos, the burning feaver, because of the Excess of burning Heat.

The Pathognomonick or peculiar Signs are, extreme thirst and burning Heat, howbeit the thirst is allayed by coughing, which causes an Afflux of humors. To these signes are added, great tumblings and tossings of the Body,

by reason of great heat, and the acrimony of thin vapours, which in every part vex the body. The Urin is little in quantity, through plenty of sweat and heat, which consume the same: sometimes tis crude and troubled, which by the settling of the adventitious parts, and evaporation of the turbulent Spirits, doth afterwards waxe cleare; sometimes tis thin, very choleric and flame-colored. The stools, unless the dung be scorched and hardened by the feavers Heat, are liquid and saffron-colored, choler being shed into the belly and making the dung thin. The pulse is quick, frequent and unequal. swifter in the Contraction, because the Arteries by suddain compression, endeavour to expel those sooty vapours, which grievously afflict the heart. Breathing is labourfome, and expiration is quicker than drawing-in of the air, by reason of the extraordinary necessity of sending forth the fiery exhalations. The Mouth is bitter, because choler is soakt into the inner Coat of the stomach, which is common to it and the mouth. The Tongue is dry, and furr'd, and black, because the burning heat consumes the moisture of the tongue, and lodges its sooty vapours therein. Raving, by reason of the mounting of choler into the head; which if it follow trembling, tis a signe that the choleric humor is transferred out of the veins into the Nerves, out of the nerves into the Brain. Sleep is sometimes profound, especially when the feaver is not exquisite, but bastard; because thick vapours carried into the Brain, do stop the passages thereof.

The CAUSE is Blood putrifying, through a peculiar propriety of the liver, occasioned by meates of an over heating faculty: or from crude, cooling meates, apt to be corrupted &c. Which blood is either Choleric, and then the symptoms specified in the definition are more vehement, and the feaver is termed Causus exquisitus, an exquisite burning feaver: or Flegmatick, & then the symptoms are milder & the feaver is termed nothus a bastard burning feaver.

The CURE requires that we regard the Feaver, Its cause and the patients strength. The feaver is terminated by sundry excretions, especially when the patient happens to shake upon a critical day, the signes of Coction appearing: and that not by reason of the shaking, but because of the Excretion, whose fore-runner is the shaking fit. Tis performed, 1. By blood-letting, that the burning heat of the Blood may be repressed, the plenty thereof diminished, and its saltiness corrected. It must be done at the beginning, while the patient

ent is yet pretty strong, and because the violent motion of the Disease, shews we must take time while we may. It must *not be done at al*, if the Feaver have its Rise from Evacuation, fasting, journeying in heat of Summer, drying of the Veins, and consumption of the Blood-water. Also when Age, Sex or some other thing prohibits. Then Scarifications, Cupping-glasses &c. must supply its place. 2. By *Purgation*, with cooling choleric purges, or temperate ones, as pulp of *Cassia*, iyrup of damask *Roses*. 3. By *Vomiting* if there be Stomach-sickness and the stomach be vexed with Choleric Humors, which is known by the Mouths Bitterness. 4. By *Alteration* and preparation with cooling Medicaments, where note, that there is then need of *External Medicaments*, when the feaverish burning is abated with internal coolers, and the putrefying Humor is for the most part drawn forth. 5. By *Corroboration* of the Patients strength, with Electuaries, Lozenges, &c. 6. By *Mitigation of Symptomes*: of which see in the proper Chapter. 7. By *Diet*, of which see what was said before.

Chap. 2. Of a continual Periodick Feaver in general.

A Continual Feaver keeping its Periods or Courses, is Generally, or Specially considered.

Generally considered, it is a Feaver arising from Excrementitious Humors, putrefying in those Veins, which are of a middle size, betwixt the greatest and the smallest, Capillary or Tbrid Veins; abating at certain Periods of time, without any Total Intermission.

Its Signs are, that it remits of its Violence, and then grows again Exorbitant, at certain Periods of time, but never intermits so as to leave the Patient free from Feaverish distemper more or less. Its Exacerbations, or Exorbitancies, are not usher'd in by any cold, shivering or shaking, nor does any sweat follow its Remissions or Abatements. It is exasperated at certain set Periods of time, both by the arrival of Morbifick matter to the Heart, by uneven quantities (because of distance of place) if it do not exactly keep its times: and also by communication of new matter from the Members subservient to the second Digestion, if it hold punctually its times.

The Causes are Excrementitious Humors which are bred in the Spleen and Liver, either

by their fault, or the fault of the *Chylus*; yet they may be bred in the *Meseraick Veins*, and brought to the Liver. They are not only jumbled together with the blood, but also perfectly mixed therewith. Their place is the Veins, not the greater, for to it should be a Continent Feaver; nor the lesser, for then it should be an Intermittent Feaver, or Ague: but of a middle size betwixt the great Veins, and the Capillary, which are smal as the Hairs of ones Head.

See the Method of Cure in the Sorts.

Article, I. Of a Primary Continual Feaver.

Point 1. Of a Continual Tertian Feaver

A continual Feaver specially considered, is either Primary, or Symptomatical. The Primary is that which has no other Disease preceding as the occasion thereof; and it is either Tertian, Quotidian, or Quartan.

A Continual Tertian, is a Feaver springing from Choleric Blood, putrefying in the Branches of Vena Cava, which holds continually, but afflicts the Patient most, every third day.

Its Signs are, the Symptomes of continual and burning Feavers, its being exasperated every third day, by reason of the Nature of Choler, which is so moved. The Cause of its Abatement, is; both the distance of the place, where the offensive Vapors are bred; and likewise their smal quantity, by which means they are all dissipated, before any more can be bred to succeed in their place.

Its Cause, is Choleric Blood, and whatsoever is apt to encrease Choleric bad Humors in the Veins, and to make them putrefie, when so encreased. The Cure is performed, 1 By Blood-letting, (a Clyster being premitid) because the Humor is mingled with Blood. 2 By Alteration, Lenitives being first used; in which case, a little Vinegar must alwaies be added to Syrup of *Roses solutive*, that it may pierce more easily into the Veins, and not be turned by the Stomachs heat into Vapors, which will cause thirst. Give them fasting, that Concoction may not be disturbed. With Moderation, lest they cause Crudities. Spirit of Nitre, of Salt, &c. are commended. Topicks must be applied unto the Heart, which is chiefly affected, but not before the state. Not cold, lest the Heat driven inward, and gathering Head, should burn more fiercely. 3. By Eva-

Evacuation downwards, and that in the beginning, if the matter provoke, if it be plentiful, and the Patient strong. It must be performed by gentle Medicines, and let Rhubarb and Myrobalans, be given in their Infusions with cooling Waters, rather than in substance. After Concoction, if Nature be lazy. 4. By Sweating and provoking Urin. 5. By Dyet which must be contrary to the Disease, and its Cause. Such as are upon the mending hand, if the Feaver be terminated with a perfect Critical Evacuation, let them never eat to satiety. Often, and a little. Let them abstain from all Evacuations, save by stool. Let them use the *Electuary Diarrhodon Abbatis*, to strengthen their Bellies. If by an Imperfect, so that some reliques remain, let them purge the said Reliques, especially by Urine. Let them keep a thin Dyet.

The Differences are taken from the Causes.

One sort is *Cholerick*, from Cholerick blood, pure and exquisite, which the Liver being peculiarly affected, produces. This sort afflicts with sharper Heat, Thirst and Watchings. They are subject to it, who abound with choler. The pulse is vehement, swift, hard. The Urine flame-colored and thin. 'Tis finished in the compass of seven, or of fourteen Exasperations. It is not deadly, unless either some remarkable Error be committed, or some malignity attend the same.

Another is *Flegmatick*, or *Melancholick*, when Flegmatick or Melancholick blood is mixed with Cholerick: where together with coolers, things gently warming and cutting are to be mixed. 'Tis termed *Notba*, or a bastard Continual Tertian.

Point. 2. Of a Continual quotidian, or every day Feaver.

A continual quotidian, is a Feaver raised by the Plegmatick Humor putrifying in the Branches of Vena Cava, which is exasperated every day.

Its SIGN is a daily Exasperation, which happens towards the Evening, because of the natural motion of flegm about that time; with heat, which is at first feeling mild, but afterwards more vehement, by reason of the slow and uneven kindling thereof, caused by the variety of the parts of Flegm. With a light coldness of the extrem parts of the Body, which nevertheless, is not found in all these Feavers.

The CAUSE is, the Humor of Flegm putrifying, which is proper to old Men because of their coldness, to Children through their greedy eating. It Causes so pertinacious and stubborn a Feaver, that it lasts, sometimes, three score daies, its beginning reaching to the twentieth day; it vehemently weakens the Stomach; whence arises a *Cachexy* and *Dropsie*.

The CURE ought to be thus managed. 1. The first passages must be evacuated with Clysters, or Lemicive Medicaments, in which case *Honey of Roses* is effectual; or the Stomach must be purged with Vomir. 2. Let a Vein be opened, if Nature be oppressed with overgreat plenty of Humors, and the Urins be thicker and redder than ordinary. 3. Purge by stool when signes of cœction appear, premising attenuators that heat not much; first with a gentle, then with a stronger Medicament. *Agarick* trochisked, *Hicra picra*, Pills of *Fumitory* are good in this case. 4. Procure Sweatings, after the matter is lessened, with Salt of Wormwood, and of *Carduus Benedictus*, and a little Treacle. 5. Let strengtheners be given, viz. Trochisks of *Rhubarb*, of *Wormwood*, and of *Agrimony*, &c. 6. Let the Diet be sparing for three daies, if there be Crudities in the Stomach, and in the first waies. At first give Hydromel or smal Metheglin to drink instead of wine or beer, and let no fish be Eaten, in the whole course of the Disease.

This Feaver is divided three manner of waies.

I. One sort is *Simple* and *Exquisite*, which arises only from flegm, and has its eighteen hours long. Another is *bastard*, when flegm is joyned with other Humors.

II. Another is termed *Epiala*, in which in the smallest particles of the body (understand to the sense) both heat and cold are felt at one and the same time. It arises, either from flegm mingled with Choler; or from Glassie flegm which in that part that is putrified, is hot, in that which is not putrified, is cold. 'Tis Cured in the same manner that other putrid Feavers are, but we must observe. 1. That Blood-letting is hurtful. 2. That spirit of Nitre in Juniper water, is excellent to cut flegm. 3. That vomiting must not be neglected, which may be procured by six ounces of *Juniper water* distilled per *Descensum*. 4. Care must be had of the Stomach, which nine drops of Oyl of *Vitriol*, with three spoonfuls of the best *Canary* will strengthen, and cut the flegm; or two ounces of *Aqua Vita*, stilled out of *Juniper*

per berries by way of Descent.

III. Another is called *Syncopalis*, by reason of the swooning fits; which is either *Minuta* so called, springing from a thin Humor, little in quantity; but venomous and corrupt: or *Humorous*, proceeding from plenty of Flegmatick and crude humors, with weakness of the stomachs Mouth, & frequent faintings away. The best way to proceed in the Cure is. 1. By *Rubbings*, in such whose skin is more than ordinarily hard. 2. By *loosing* the belly, with Manna and Cream of Tartar. 3. By *Digestion* and Evacuation of Humors, giving such things as are necessary for the Syncope. 4. By a *thin Diet*, in which wine may likewise have place.

Point, 3. Of a continual Quartan Fever.

A continual Quartan Fever, is a Fever arising from Melancholy blood putrifying in the branches of Vena Cava, whose heat alwaies endures, but is Exasperated and Augmented every fourth day.

Its **SIGNS** are, obtuse Heat, but sharp and pricking, by reason of the Density and dryness of the purrified Humor which causes the Fever. The *Pulse* at first smal, slow; and buried as it were under the skin; afterwards great, full, and swifter than in an Ague. Sometimes the Patient *Spawles* much, which argues either the overgreat moisture of the Stomach, or the Spleens fault, in not separating the Melancholy Humor.

Its **CAUSE** is, Melancholy blood, putrifying in the middle sort of Veins, and springing from its proper causes.

The **CURE** is altogether *hard*, both because it lasts to the fortieth day and further, unless peradventure it be a Summer Quartan: and likewise because, seeing that Humor is hard to putrifie, it argues there is a great cause. 'Tis *Performed*. 1. By *opening* the inner Vein of the left Arme. 2. By *Preparation* of the Humor, which must tend much to moistning. 3. by *Purgation* with Melanagogues frequently repeated, as also the use of sweaters, and pill-drivers. 4. by *strengthening* the Patient, with borage, bugloss, Citron juyce &c. 5. by *Diet*, which ought to be cutting, moistning and cooling &c.

Article, 2. Of a continual Symptomick Fever.

Symptomick Fevers, are such as follow upon other Diseases, which being removed the said Fevers Cease

Their *Signs, Causes, and Cures* are to be drawn from those Disease which they wait upon.

Their *Differences* are sundry.

I. One sort is *That which follows the Inflammation of some inward part especially, and which is neare the heart, or has a consent and sympathy therewith, the Vapors which arise out of the blood shed into the part inflamed, and putrifying there, being communicated to the heart, and heating the same. It is as many-fold, as the Inflammation is. The Cure respects the Inflammation.*

II. Another sort there is, termed *Lipyras*, in which during the whole course of the Disease, the inner parts are as it were burning up with Heat, and the outer parts meane while cold. It arises from a vehement inflammation or Erysipelas of some internal part, especially the Stomach, the blood and spirits having recourse to the part inflamed. Either the *Cure* is not to be undertaken; or if it be undertaken, resistance must be made inwardly against the putrefaction and extreame heat; *external*, after the parts have been rubbed, heaters, and openers of the pores must be applied. In which case Oyl of Dill, and Oyl of Orice Root, with oyl of Vitriol, and strong spirit of Juniper berries are good.

III. Another is slow, which is *hereby known*, in that it afflicts with a gentle heat, with which appear the notes of putrefaction, in the Urine and Pulse. It is not burthensome to the Patient by any greivous syptome. The Patient can hardly stir on his Legs for weakness. The bodie pines away by little and little. 'Tis protracted beyond the fortieth day. 'Tis exasperated by the use of Purgers. It keeps no order. It arises from putrefaction of matter shed forth of the Vessels into the substance of some bowel, or at least fast fixed in the Capillary Veins, which are dispersed through the substance of the bowels, and by its putrefaction corrupting the said substance. From whence Vapors cannot be carried towards the heart, in such great plenty, as in other Fevers. 'Tis *Cured* by aperitives,

H attenuaters

attenuaters and detergents, appropriate to each part. We must also use *gentle Purging*, &c.

IV. Another sort there is *Which arises from the Putrefaction and Corruption of some Bowel*. From whence putrid Vapors are communicated by the Veins inserted into the heart, and heat the same. It is sometimes *more gentle*, otherwhiles *more Vehement*. It happens for the most part, in *Putrefaction of the Lungs*, in *Fistula's* that peirce deep into the *Cal*, *Nesentery*, *Womb* &c. The *Cure* is to be directed to the *Ulcers* and *Fistula's* of the internal parts.

V. Another, springs either from *Corrupt Milk*, as often betides *Infants*; or from *Blood* somewhere *Putrifying* without the *Vessels*; or from *worms*; or from *Crudity*, familiar to *infants* because of their *greedy feeding*, with *swelling* and *inflammation* of the *Hypochondria*; putrid Vapors being communicated to the heart. In the *Cure*, respect is to be had to the *Causes* and *parts* affected.

Chap. 3. Of an intermitting Feaver or Ague in general.

AN intermittent Feaver [commonly called an Ague] is a Feaver arising from Vapors which proceed from Humors bred in the *Mesaraick Veins*, *Putrifying*, and ever and anon entering the *Vena Cava*, invading the sick person at certain set times, and ending with excretions, or Evacuations.

It's **SIGNS** are, to come at certain set times, with shaking, shivering, or cold, the sensitive parts being vexed and nipped as it were with a sharp Vapor. To end by sweating. Urine, or passage of the Vapors through the pores of the skin; by scabbynels, if the thicker part of the Humor be thrust forth into the skin. Now, necessary it is, that it should come at certain seasons, and then remit, and come again. For there remains a defilement in that part which is the seat of the putrefaction, with a weakness also in the said part. Whereupon the affluent Humor though it be good, is defiled by the impurity of the part, as it were with Leven, and through the weakness of the parts it is corrupted. Now this return of the Feaver or Ague is caused. 1. Partly by the *diversity* of Humors, seeing it alwaies agrees to them, nor ever varies, into whatsoever body it happen: partly, because of a peculiar *Quality* they have, which ought either

to be ascribed to celestial Causes; or it arises from a peculiar corruption. 2. It comes either just at one and the same time, or by reason of some external causes, which move the Humors it anticipates; or the Humors being diminished, it comes later. Also the fits are either short, if the matter be little, or thin, the bodies constitution not close compact, the Patients strength Vigorous; or long if the premises be contrarily disposed.

The next Cause is a *putrid Vapor*, arising from an Humor and assailing the Heart. Touching the humor three things are to be observed. 1. That it is a *Putrid Humor*, which appears by the *Urine*, which has in it signs of putrefaction. Nevertheless it does not *All* putrifie at once in the first Paroxysme, but only a *Part*, which is disposed to putrification: the rest in the following fits, til all be consumed. 2. That the *Hearth* and *Tinder* as it were and place of the said Humor, as well out of the fit as in it, is the *Mesaraick Veins*. Which appears both by the *stomach sickness*, *Vomiting*, *stretching* and *pain* of the *Hypochondria* &c. With which the Patient is troubled; and also by the frequent *Vomitings* of *Choler* in very great quantity at the beginning of these feavers, which could not be evacuated in such a manner from the remote *Veins*; likewise because the approach of the fit is collected by the compression of the pulses at the beginning of the fit, which the Greeks terme *Episemasia*; and the matter is purged out by *Urine*. 3. That the said Humor is ever and anon transferred into the *Vena Cava* and the *Artery*. The truth is, *Crudity* and *Cocktion* are observed in *Agues* or *intermittent feavers*, as well as in the *continual*. At first, the *Humors* are moved from the *Circumference* unto the *Center*. And seeing, the branches of *Vena Porta*, are inserted into the substance of the *Liver*, and their mouths communion with the *Vena Cava*, and the *Arteries* proceeding from the heart, are in the *Stomach*, *Guts*, *Spleen*, and elsewhere joyned to the *mesaraick Vessels*; the waies by which these Humors may be carryed thither, are evident enough.

The **CURE** of intermitting feavers or Agues is Performed. 1. By *Removing* the *Debility* consisting in the part, by altering Medicines. 2. By *Withdrawing* the *Putrid Defilement* with *Purges*, *Blood-letting*; if blood abound in *Vena Cava*, and be corrupted by *Vitious Humors*. By *Sudorificks*, which are of greatest force in this Cure *Precipitating Medicaments* are commended at first, as *Crollius* his

his powder of snails shels, powder of mother of pearle calcined four scruples, and the Magistery of Crabs eyes. Externally are applied, Cobwebs and Populeon Ointment, the fish we call a Tench bound to the soles of the feet &c.

Article. I. Of a tertian Intermitting feaver, or tertian Ague.

An Intermitting feaver specially considered, is either a Tertian, or a Quotidian or a Quartan. Howbeit there are Quintans, Septans, Octans, Nonans. But those modes of Agues are seldom seen, and are but certain sortes of the simpler Modes aforesaid, only a fit Two or three happen to be omitted. So a Quintan is a sort of tertian, in which the third day, is without accession.

An Intermitting tertian Feaver, or tertian Ague, is a feaver springing from excrementitious cholor putrifying in the mesaraick veins; afflicting every third day, with a cold shaking fit, which is followed with a hot fit and other symptoms.

Its SIGNES are Paroxysme or fit which seizes the patient every other day with a shaking cold. The shaking cold being over, much Heat arises, the pulse is at the first beginning of the fit, smal, slow, afterward frequent. The Urin reddish &c.

The CAUSE, is a Cholerick filth in the mesaraick veins, either alone, or mixed with other humors, and putrifying Springing from meats apt to be corrupted, or others fit to generate the same, and lending putrid vapours to the Heart.

The CURE is performed. 1. By Evacuation of the first waies with lenitive medicaments or clysters. 2. By Vomit if the matter tend to the stomach, and the patient be troubled, with Heart burning, stomach sickness and desire to vomit: but so as the humors be not thereby drawn out of the veins to the first passages. Salt of vitriol, Asarum, Broome water of pismiers or Aunts, are commended, if warily administered. 3. By Blood-letting, if the Humor have penetrated out of the first region of the body into Vena cava, which is known by the redness of the Urines; and it ought to be performed upon the day of the Agues Intermission. 4. By preparation with cooling medicaments, moistening, and such as cleanse the first passages. Taraxacum, or dandelion, sorrel, Barly, Cicbory, Spirit of vitriol, Cream of tartar, Tartarum vitriolatum, Syrup of juyce of Citrons, are good:

also these specificks Centory, Devils-bit &c. 5. By purgation downwards, and that for the most part on the wel day; yet on the fit day, if the matter of it selfe encline to go away by stoole. Rubarb is good, and Syrup of Cicbory with Rubarbe. 6. By sweat, procured by sudorificks, salt of wormwood, of Centori of Cardus, Harts-horn prepared, Magestiry of Mother of Pearle, which are to be given either before the fit, or in the end thereof. 7. By strengthening the Liver and stomach. Salt of wormwood dissolved in spirit of Niter, and againe coagulated into Chrystals, is good, being taken to the quantity of a scruple. 8. By application of topicks, such are the Cataplasme of Mynlichtus P. 368. The powder of a dryed manchet beaten with greene sage; the white of an egge and a little vinegar being added, and so bound to the wrist. The Herb Potentilla wild tanfie or wild Egrimony, beaten with salt and vinegar, and so applied, to the pulses and the soles of the feet, in the fit. A Cataplasme or pultise, of Bryony Rootes, Black Hellebor, bay salt, white pepper, saffron and figs. 'Tis divided into Exquisit, Bassard, an Pernicious.

I. The Exquisit Intermitting Tertian, is hereby known. 1. In that the shaking coldness at the first comming is vehement and pricking, arising from an humor and Vapour very thin and smal in quantity shipping out of the veins. 'Tis smal, if the matter be plentiful; and not easily moved: more vehement, by how much the matter is thinner and sharper, the expulsive faculty stronger, and the tence of the parts more exquisite. 2. In that the Heat is much sharp and biting, and spreads it selfe al over the body in the Height of the Hot fit. And if you hold your hand long upon the patient, it grows gentler by reason of the ealy discussion, at what time the body is al over bedewed with a gentle moisture. 3. In that the pulse at the Beginning of the fit, is smal and slow, the matter being not yet conquered by the oppressed heat, yet is it not drawn back; in the Progress of the fit, 'tis vehement, swift, frequent, a little hard straitned by reason of the store of matter newly inflamed like green wood, more swift in the Intermission of the dilatation, by reason of the heat of the smal quantity of humor, remaining in the Chimney of putrefaction, communicated to the rest of the humors, and carried to the heart. 4. In that, the fits last not above twelve howers. 5. In that the Urine is reddish and yellowish, of a midling Consistence, shewing a white cloud or a swim, in the first fit:

and then the Ague lasts not beyond the fourth fit. It arises from choler, sometimes resembling that which in the Gal-bladder, regurgitating into the first passages, sometimes verdigreise colored or green, bred in the stomach and veins. *The cure is now of the hardest*, for 'tis terminated for the most part within the compass of seven fits. It is ended either, by sweat, if the humor be cast bak into the veins which are in the surface of the Body; or by vomit and stooles, if to the stomak and entrals: or by *nature* of these, if a great part consist in the misaraick veins; and then the patient feels a pefsure, pains and Inflammations about the midrif. *Blood-letting* must be administred, before the third fit, least it fall in with the state of the disese.

The *Bastard tertian*, is hereby knowne, in that the Heat is milder, nor is it diffused through the whole Body. In that it is terminated neither by vomit nor sweat, but by egress of vapours in the Declination. In that the *Pulse* is at first hard, the hardness encreasing til the seventh day, growing afterwards more soft, as the Urines become better digested. In that, the fit lastes, many times, eighteen houers, and the Ague reaches to the fourteenth and sometimes to the twentyth day. It arises from cholor mixed with melancholy or flegme; nor is it generated only in summer, but in the Spring, Autumne, and Winter. In the *Cure*, a vein must be opened after the third fit, when a good quantity of the morbifick matter, is mingled with the blood in *Vena Cava*. In the *Preparation*, we must have an eye to the Diversity of Humors.

III. The *Pernicious Tertian*; which happens from seven causes. 1. If an *Error* be committed by the Patient or Physition. 2. If that *Humor* which ought to be sent out of the vessels, by reason of their closure, do come to settle in some principal member. 3. If it be too *Thin* and putrid. For thence come frequent swoonings, and over great sweats without any ease to the patient. 4. If it have some *peculiar pravity*, either through *adustion*, or badness of diet. For the humors being inflamed, *roughness* of the tongue, and unquenchable thirst are thereby caused. Holowness of the eyes by reason of the wastings of spirits. *Fiery* Urin with choleric stools. An ulcerous pain of the whole *Body*. Paucity of sweat, by reason of the thickness of the matter. 5. If a *thick humor* melted by heat, settle in some part. Hence follows, by reason of the difficulty and faculty of 'tis inflammation, an ine-

quality of being heated. The melting and plenty of a thick humor and which seemed to be little in the greater vessels, but by rarefaction caused by Heat, it becomes in the small vessels more in quantity. Hence it is that the hot fit is interrupted by a cold, and the cold fit by an hot. The Urin becomes watery, of much and thick sediment. The pulse is sometimes intercepted. In the declination, sweat issues from the navil to the head. Neither Augment, nor state, nor decpination are equal. 6. If it be a contagious or pestilent malignity. 7. If the Heat either draw the womb in conceit, and move the humors contained therein, or caule a dangerous Catarrh, Tislick, or Gout.

Article. II. Of a Quotidian Intermittent.

A Quotidian Intermittent, is a fever arising from flegme putrifying in the misaraick veins, and assisting the patient with every day a fresh fit.

'Its *SIGNS* are. The foregoing of such causes as breed flegm. 'Its *daily Assaults*, which are for the most part in the night time, whence it is more dangerous, by reason of the unseasonableness of giving Physick at that time; and they come with a shaking and Cold fit. Which Heat slow, vapours, nor very burning when it has dispersed it selfe through the Body. The *Urins* at first white, thin, and crude; when the matter is digested, thick, troubled and often red. The *Pulse* is exceeding small, seldom and slow. The *fit* lasts eighteen hours and sometimes twynty four. *Vomiting* and *Sweating* if they happen at first, they proceed from strength of nature and thinness of the humor.

The *CAUSE* is, *Flegm* putrifying in the Misaraick veins, which is collected by means of the heat of the bowels diminished, cold and moist kind of diet. superfluous feeding upon such matter. It *putrifies* through the causes afforsaid.

The *CURE* is frequently *hazardous*, both because it lasts forty daies, yea three months and longer: and also because hurting the stomach and liver very much, it throwes the patient into a Cachexy. 'Tis performed 1. By *preparation* of the *peccant matter*, by convenient medicens, moderately hot, which a clyster and gentle vomit may proceed. 2. By *evacuation* of the the *said matter* being concocted, by vomit, where extract of *Esula* and water of *radishes* and green walnuts, distilled with

with vinegar, are good. By *purgation* of flegm and sweat. 3. By strengthening the *stomach* and *Liver*. 4. By *Diet*.

It is differenced according to the causes.

I. One sort comes from *thick flegme*. Then the *urin* is white and thin, but by little and little it begins afterwards to grow reeddish, and the settling becomes thicker and the patients mouth is continually full of waterishness. It requires strong *medicines* to digest it, and those frequently repeated; to which, preparations of tartar, ought alwaies to be added. Vomiting is profitably procured with *mercurial* pills. 'Tis good to purge with an infusion of the *Species diacarthami*, fenna and ginger in Centory water, some drops of spirit of vitriol being added. Once in a week one dram of Venice Treacle may be given.

II. Another is from *thin acid flegm*, and then there is paine in the forehead and left Hypochondrium, costivness, and acid belchings. It must be *skillfully* cured, least it turne to a quartan. The liver veine of the left side may be opened. Before the fit, some specifick medicament must be given.

III. Another is from salt thin flegm. Then saltness and driness are felt upon the tongue. The Urin is red and thick, with sense of heat and sharpness in the making. The Liver vein on the right side arme may be opened.

Artickle. III. Of an intermitting Feaver or Quartan Ague.

An Intermitting Quartan, is a feaver arising from melancholy blood in the miseraick veins, which takes the patient every fourth day.

'Tis SIGNES are; Reachings and yaunings, with a shaking fit after, which at first is smal, but afterwards like those that in the extremity of winter are pained with the cold; for it does not so much prick as beat and bruise as it were. The Heat is kindled by degrees, because of the thickness of the matter. The Paronysmes returne every fourth day. The Pulse is rare and slow, but in the vigor of the Fit, swift and frequent. The Urines are at first thin and watery, afterwards more colored and thick. The Sweats are at first very smal, afterwards exceeding plentiful.

The CAUSE is a Melancholly humor, collected and putrefying in the Miseraick veins, about the spleen and neighboring Bowels, arising from Causes like it selfe, among which Vinegar is one.

The CURE is wholly difficult. For 'tis a long lasting ague, and sometimes reaches out for certain years; especially if it begin in the Fall of the lease. But, 'tis more difficult, when it springs from black cholor: if it happen to old people, whose weake heat, cannot overcome the Matter. If it be a double ague. If it be joynd with some greivous Affection of some of the bowels. Easier if it be a legitimate Quartan, and unattended by any disease of any of the Bowels. otherwise such as are taken with a quartan Ague, are little troubled with Convulsions; or if they are, the matter turning towards the Hypochondria, and remaining no longer mixed with the blood in the veins, they are freed of their Quartan Ague. 'Tis performed, in general first by gentle then stronger medicines. In particular. I. By opening the Basilica or Mediana Veins, at the very first the first passages being cleared, if plenitude of blood require so much; not so soone if there be no plenitude. Blood plentifully, if the blood come thick and black; stop it quickly, if it rune thin. II. By preparation and Coction of the pecant matter, repeated with moisteners, and splenicks; such as fumitory, Maidenhair, Ceterach, Roots of Eringos, Decoction of Turneps, syrup of fragrant apples &c. III. By evacuation thereof, either by vomiting, after which a dram of venice Treacle may be given, before the following fit, mixed in a cup of wine: or by stool, to which end are good in the first place the *Pilule Tartarea* of Quercetanus or Senertus: afterwards extract of black Hellebore; at last the pills of Saga penum of Camilus de Camilis in Quercetanus Pharmacopœia: or by the *Hæmorrhoides*, leeches being applied: Or by Sweats, which may be well procured by Treacle, *Antimony diaphoretick*, or six or ten grains of sal Armoniac purified in Cichory water, before the fit. The patient being strong and Coction appearing, a purge is happelly given a little before the fit. IV. By strengthening the bowels, especially the spleen, by their appropriate remedies, such as wil not augment the feaver, both external & internal V. By Mitigation of symptoms of the shaking cold by treacle, or Aqua vitæ given four hours before the fit. Of the Back-paide, by application of Hartman his faccolus in his Chapter of the quartan Ague. VI. By Diet, where observe, that we must order absence from all kind of food, on the fit day, wine that is ripe and thin may be allowed. Appropriate medicaments in this feaver are, *Amoniacum* seven

seven times sublimated. Pouder of *Vipers* given the Quantity of one scruple or half a dram, before the fit in some convenient Liquor. An *Hares Heart* prepared like Fox-Lungs. Oyl of Myrrh, from four to eight drops, before the fit.

The Quartan Feaver or Ague is distinguished *two manner of waies*.

I. One sort, springs from *natural Melancholly*, in which we must go to work with moisteners and moderate heaters.

Another, arises from *adust Humors*, which is known from decay of Appetite, vehement thirst, Head-ach and redness of Urine. It arises from such things as burn the Humors. In the Cure, we use things moderately cooling, to which in the progress of the Disease, Cutters and attenuaters ought to succeed. A Bath of *sweet fair water* is commended, or rather to wash the Feet therein.

II. One comes of it self, without another Disease foregoing. And then a Diet somewhat thin is good at first; afterwards somewhat grosser; and then again towards the state, somewhat thin.

Another follows other Diseases. Then a thicker kind of Diet must first be used. Afterwards the state, it must be somewhat diminished. In the fit nothing must be taken.

III. One sort is gentle; of which in the premises.

Another is dangerous, which is known hereby, that on the fourth day the fit returns, with extream weakness, the Urine being exceeding red and troubled. It arises from burning Diseases, black cholera being bred by the adustion and turning to ashes of the Melancholly Humor, or yellow cholera. Tis cured with extream difficulty.

Article, VI. Of compounded Feavers, Particularly the Semitertian.

Feavers compound are, when one Feaver is joyned with another.

This Conjunction is various. For sometime a nonputrid is joyned with a Putrid: sometimes a putrid with a Putrid; and that, either with a continual or an intermitent; with an intermitent; or contrary wise.

The SIGNS are the same with the Signs of simple Feavers, especially the return of cold, shivering and shaking after some respite. After many shaking fits, one hot fit; or after a cold fit, no sweat. The Contaction of the pulse is most frequent, by which we gather a

new motion of the matter and a new fit to follow. The Cure is Hard, because they vex more than simple ones, and there is hardly time to use help. It is apparent from the cure of the simple Feavers. They are variously divided.

I. Some are *confused*, when two Feavers begin and end at one time, so as hardly to be distinguished; because divers Humors mingled together putrifie in the same place. Others *Implicit*, when the nature of each may be distinctly known.

II. Some are *Subintrantes*, interfering; when the fit of the second begins, ere the fit of the first be over. Others are *Coalterna* keeping due times, so that one fit being done, after a small space another begins. Other *Communicantes*, when the fit of one begins presently after the fit of the other.

III. Some are *Intermittent*, under which are comprehended. 1. A *Tertian*, both *double*, which comes either once a day or twice; arising from cholera putrifying in two places of the Mesaraick Veins; and *Triple* which comes thrice in two daies; once in one day, twice the other; and springs from cholera putrifying in three several places. 2. A *double Quotidian*, which comes twice in twenty four hours. 3. A *Quartan*; both *double*, which leaves one day free, and comes the two next daies following: and *Triple*, in which the Patients are sick every day. Both these are wont commonly to proceed from an unseasonable use of hot Medicaments, especially Sudorificks.

IV. Some are *continual*, such as is the *Semitertian*, For it is a Feaver compounded of a continual Quotidian, and an intermitting Tertian, vexing continually, but the third day with a shaking fit. It is known by the signs of both Feavers. It arises also from the same Causes, but most frequently from the Inflammation of some of the Bowels. Tis Cured with difficulty. For it is not simple, but compound. It frequently overthrows the stomach. It hurts the Nervous parts, which is wont to be the ground of its long lasting, and vehemently stirs up what lies in the depth of the Body. Respect had to the Feavers and their Causes, Agarick among Purges bears away the Bel in this Case. Tis divided two manner of waies. For 1. One is *Legitimate*, when the Quantity of Cholera and Flegm are equal. Another bastard, when cholera exceeds Flegm, or Flegm Cholera. 2. One is *Malignant*, Contagious and Epidemical, which is known by signs of Malignity. Another is of

Another is *Complicated*, and that either with a *Putrid intermittent*, and then the greatest part of the Heat remains in fiery, and the least is come into *Act*. The fit being finished, the places of the Arteries grow hot, the other parts are temperate. The Pulse looses not its frequency and swiftness, and the Patients meat does not eucrease strength. Or with a *Continual Putrid*, and then tis hardly known. The dry heat remains after the end of the declination, or of the whole Feaver. The Body is more extenuated. The Urine is fatty and Oyly.

Title, V. Of Malignant Feavers.

Chap. I. Of Malignant Feavers in General.

Hitherto we have treated of Benigne or wel affected Feavers: the *Malignants* come next, which are *Generally* or *Specially* to be considered.

Malignant Feavers generally considered, are Feavers arising from some hidden cause partaking of a Venemous kind of Quality, causing more greivous Symptomes than ordinary, and yet not killing many, or suddenly,

Their **SIGNS** are, great *weakness* from the beginning, without any manifest Cause, more than the Feaver and Feaverish heat could probably produce. Pulse frequent, Smal, Weak: or if the Pulse being natural, seem to deceive, tis known by the presence of other Symptomes. The *Urins* are some times, in the first daies, like those of heathly persons: sometimes thick, colored, troubled, having a thick red and troubled sediment. The Heat milder than suites with the Nature of the Disease and Symptomes. A Mass of Symptomes, animal, Viral and natural. Swellings or spots break forth &c.

The **CAUSES** are, either the *Disposition* and *Plenty* of *Humors*, or *Contagion*.

The **CURE** is *Hard*, if greater and more constant Symptomes appear. Dropping of blood at the beginning signifies the working of the *Humors*, their bad *Quality* and the Patients *weakness*. Tis performed by *Be-*

zoardicks and other things of which in the Differences.

The Differences of Malignant Feavers are taken from the Causes,

I. Some are from the *Bad Dispositions of Humors* and their *Plenty* whether in the stomach, about the Midrif, or in the first waies. They are known by Stomach-sickness, Pain, Heat, Bitterness of the Mouth, anxiety and other tokens. They arise either from corrupt meats, or from some other cause. *Are Cured.*

1. By *Blood-letting*, which ought to be Practised after the Evacuation of the first waies by Lenitive Medicaments, least a greater Ebullition and working of the *Humors* becaused, and that before the fourth day.

2. By giving of *Sudorificks*, which neither augment the Feaver, nor are very strong, that either the Body may be disposed to sweat, or at least the Malignity may be expelled.

3. By *alteration* and preparation, with such things as stop the Commotion of the blood and resist the malignity thereof. The Juice of *Citrons*, *Pomegranates*, and the Root of *Scorzonera* are commended &c. Yea and also the spirit

of *Vitriol* with other Syrupe, unless the Patients be aged and lean: and unless their Lungs be otherwise diseased than through slegm stopping the Vessels.

IIII. By *Purgation*, which ought to be effected by gentle Medicaments and scarce before the fourteenth day.

V. By *giving* cooling diureticks, if the matter of the Disease go that way.

VI. By application of *Topicks* to the Pulses and the heart at the time of the Disease.

VII. By mitigation or taking away such *Symptomes* as shal happen.

VIII. By *Diet*, in which we must abstain from wine, unless faintings happen. A Decoction of Harts-horn with such a Quantity of spirit of *Vitriol*, as may cause a grateful acidity; to which a little Julep of *Roses* or *Viollers* may be added; must be given.

They are divided *two waies*.

1. Sometime *there is no Poyson*, but the Disease is urgent, by reason of the Causes Vehemence, or some evil quality conjoyned. Sometime *there is an hidden Venemous Quality*.

2. Sometime the *Putrefaction* and Malignity are equal. Sometime the *Putrefaction* is greater than the Malignity. Where the first waies must be Evacuated, not only by Clysters, but also by Syrupe of *Roses* solutive, *Cassia*, *Tamarinds*, &c. Sometime the Malignity is greater than the *Putrefaction*.

Some arise from *Contagion*, in which the Cure ought to be undertaken by *Sudorificks* and

and Antidotes, and Nature must be assisted if she expel any thing.

Chap. I. Of the several sorts of Malignant Feavers.

Article, I. Of the smal Pocks.

Malignant Feavers specially considered, contain under them, Feavers with *smal Pocks*, *Meazels*, and such like Eruptions, the spotted Feavers, *Sweating-sickness of England*, *The Hungarian Disease*, the Feaver with the *Cramp*, and the Feaver with a *Catarrh* and *Cough*.

The *Smal poxe* are pustles arising by means of the expulsive faculty on the surface of the skin, and parts that hold proportion with the skin, with a continual feaver, by reason of a peculiar boiling of the Blood.

The **SIGNES** of the smal poxe when present are needles, for they appear to our Eyesight. That they wil shortly come forth, is signified by paine of the head with heaviness of the eyes, also of the neck and back, itching of the nostrils, Diminution of Respiration, dryness of the cough; trembling of the Feet the when patient turns, frequent sneezing panting of the heart. The *Urin* is sometimes like that of Healthy bodies, the vicious matter being driven into the outward parts of the body; sometimes it is troubled by reason of the great working of the Humors. Tears bursting out of the eyes without any cause of sorrow. A feaver raise by the working and boiling of the humors. Spod breaking forth of the Body &c.

The **CAUSE** is either external viz. Impurity of the Mothers Blood, which the infant in the womb attracts in the last months, because there is none purer. This blood being drawn into the whole fleshy substance, is for some yeates insensibly hidden: at length no longer able to beare it, it begins to ferment like new wine or beere that works; by which fermentation or working, the pure is seperated from the impure; the impurity is drawn forth by a certain kind of *Crisis*, and the Heat is communicated to the heart, and a feaver raised.

Or external or contagious, when out of Bodies so diseased, a sickly vapour is communicated to another: or the *Air* which by reason of the Influence of the stars or other causes, does either rapt the humors or set them in agitation.

The *Physitians* care has two scopes. I. *Preservation*, which in persons of years is contri-

ved by blood-letting, purgation and taking heed of the Infection; and in infants only by the last means of the three. II. *Curation*, which is *Hopeful*, if they soon break forth, and appear high above the skin, great, seperate, white or red; If the Heat abate after they are broken forth; if large bleeding at the nose have proceeded; if no greivous symptoms attend them. *Doubtful*, if either they come slowly out, or go in againe: if they are of violet color, green, lead-color, hard, and touching one another; If the feaver abate not after their breaking forth; If the patient breaths not freely, faint away, and other lymptoms be present.

This is performed, I. By mitigation of the *Ebullition* or fermentation of the Blood least over *Ebullition* produce more greivous symptoms; which is effected by blood-letting and light purgation in persons grown up: by Clysters of the decoction of barley with fresh butter, comon sugar in Infants; or by giving them syrup of Citrons and syrup of violets mixed together, or a bit of pomecitron. II. By assisting nature in the expulsion, where impediments are taken away by the foresaid remedies; and the malignity is likewise resisted. Expulsion is furthered by *Pulvis Foelis* in his 4, Tom, Book 9. sect. 5. of the seeds of *Nasturtium* or water cresses and brooklime of each one dram, powder of Unicorns horn one scruple, or of harts-horn half a dram. Red coral pearls prepared of each a scruple. Make all into a powder. The dose one dram or an half dram. The decoction of figs of *Mynsichtus* in the 25. section of his *Armamentarium. Terra Sigillata* of Silesia. Seed of white turneps. A decoction of lentils unhusked, with fennel-seed and gum dragant, &c. III. By defence of the parts. To which end the eyes must be rubbed with pure gold; or nointed with plantane and eye bright water and a little camphire and saffron. If they cannot be opened, they must be fomented, either with hot milk, or a decoction of Barly. To the *Nostrils* a nodule of sanders and camphire dipt in rose water, must be applied. If that, they must be nointed with oyle of sweet almonds. The throat must either be smeared with diamorum, or washed with a decoction of plantane and barley, with Honey of roses. The ripening of the poxs, must be furthered, with anointing the same, with oyl of sweet almonds. When they are ripe, they must be opened with golden or silver pins, that they may leave no warts behind them. They must be washed with a water distilled of a manner of flowers and mans fat.

or with ointment of *Forefins*. IV. By removing the symptoms which appear with, or follow the same: now they are, *Epilepsy*, and *convulsion* when the membranes and nerves are beset with poxes; and the *palsy* when they are thereby obstructed. *Hard swellings* which must be dissipated by emollients, without supuration. *External Ulcers*, *Dysentery*, where emollients are to be avoided and such things as dry and stop without acrimony, are to be used. *Hearing impaired*, where evacuation being premised, either vesicatories or vapours received into the ears are useful. *Inflammation of the Eyes*, &c. Of which see in their proper places.

Article. II. Of the measles and such like Breakings forth.

The *Morbilli* or *Measels*, are smal red pusses breaking forth upon the skin, with a continual fever, caused by the expulsive faculty, and a peculiar working or boiling of the Blood.

The Signs, Causes, Differences, and Cure, vary not much from those of the smal pocks: of which we newly discoursed.

Like Breakings forth to the measles are.

I. *CrySTALLI*, *Cristals*, pushes about the bigness of Lupines, breaking out upon the Body, and shining like Christal, out of which a watrish humor flows. The Germans call them *Schafs-blattern*.

II. *Tubercula*, little risings not thick together, with little moisture in them, without any teaver and soone cured.

III. *Rubeole*, smal red Pimples, which come sometimes alone with heat and Cough; sometimes they are sprinkled among the smal poxe or measles, and sometimes they happen to persons in Health.

IV. *Rossalia*, red fiery spots, which breake out at the beginning of the disease, all over the Body, as it were certain smal *Erysipelas*, though the tumor is hardly discernable; sometimes they breake not forth til the fourth or fifth day; in the progres of the disease they occupy the whole body, so that it looks as it were all on a red fire. Which color is againe changed into spots as at the beginning; which vanish at last upon the seventh or eight day. The Epidermis or scarf-skin, falling off like scales. The Cure of these requires nothing singular.

Article. III. Of the spotted Fever.

Febris petechialis, or the spotted fever, is a malignant Fever, in which certain spots like flea bitings of sundry colors, but chiefly red, appear upon the skin.

These spots are called *puncticula*, *petechia*, *peticula*. Whence the fevers are termed also *puncticulares*, *periculares*, and *lemiculars*.

The SIGNES are the same as in malignant fevers. The spots are without any itching, extuberance and exulceration. They appear in the back, Armes, Thighes, Breast; viz. places through which the most notable Arteries and veins doe passe. Seldom in the face because the cold air repels the matter from thence. There appears no prick in the middle of them, and so they are distinguished from flea-bitings.

The CAUSE is, the thinner part of the putrid humor, which makes that they soone vanish. 'Tis driven forth by the expulsive faculty, Seldom critically, seeing they commonly shew themselves at the beginning without any remarkable evacuation: alwaies for the most part *Symptomatically*, and by how much they are more plentiful, they do the more signifie the abundance of corrupt matter in the Body.

The CURE is Hazardous, if the spots are many, because they shew that there is much matter. If they be few, and accompanied with signs of Natures weakness. If they disappear; because 'tis a sign they strike in again. If they come forth slowly; because it argues grossness of matter, or compactness of the Skin. 'Tis Performed. 1. By withdrawing the matter, effected by blood-letting, which must be practised before the fourth day, Lenitives being premised to loosen the Belly, to which a little Camphire may be added: if blood be drawn later, the Patient will be over weakened. 2. By Expelling the same, with Sudorifics resist malignity, premising (if you please) such noyntings as may open the pores. In this case, *Bezar stone* is good, and Emulsions of *Nawew* and *Citron seeds*, with *Carduus Water* and *Syrup of Citrons*. The *Bones*, *Blood*, *borns* and *Skin* of the *Rhinoceros* &c. 3. By Roborating the Faculties, with Emulsions of *Coral* and *Pearles*. *Confessio Alkermes*, &c. 4. Sometimes also by Revelling the Humor to the external Parts by Vesicatories, if the external parts are cold, there be Head-ach, ravings, Convulsions, &c. If the Patient be loose bel-

lyed, we must not stop the loosness, unless it be too excessive.

The Differences are taken from the Quantity and color. 1. Some are plentiful, others few. 2. Some small, others great. 3. Some are red from putrefaction of temperate blood; others Yellow or Green, from choler; others of a Pomegranate and Black-choler, from Melancholy, &c.

Article, IV. Of the Hungarian Disease.

Morbus Hungaricus is a continual fever, malignant and contagious, Joyned with abundance of evil humors about the stomach and first Passages, and with an extreme head-ach.

It may be called the *Campe* or *Soldiers-sickness*, because, it had its original in the Soldiers Camps. Its Signs are, the same with those of malignant Feavers. Also great pains in the Head, as also hardness about the stomach and are renitency to the touch, under the *Mucronata Cartilago*; ravings, which cease when the matter turnes to the Ears, and causes Deafness: many times spots appear, as in the spotted-Feaver, &c.

The CAUSE is either the Putrefaction and corruption of Humors in *Vena Cava*; or Contagion.

The CURE is hopeful, if the matter tend to the Ears. If it be Evacuated by stooles. 'Tis Performed according to the Nature of the Causes, which see in the Differences: and has great respect, both to the Feaver and the malignity.

'Tis divided with respect to the Causes.

One sort comes from Corruption of humors in the *Vena Cava*, which are cumulated by Errors in Diet. For the Hungarian Air, is thick a Nights, thin and hot a daies. The Soldiers receive in, the Vapors which exhale from the ground. Their Diet is commonly bad, and tending of it self to putrefaction, &c. 'Tis known by the Diet foregoing, and pain of the stomach. 'Tis Cured. 1. By drawing forth the Humors, both by stooles, where *Agarick* is commended; and by vomit: also by opening a Vein in the Arme or Ankle, which must be done the first or second day: if some daies are slipped, and either the belly be loole, or vomiting happen, omit it. 2. By Dissipelling the malignity by moderate Sudorificks frequently given, where both *Antimony Diaphoretick*, and *Treacle* are useful, given in cooling Waters. 3. By Diet suitable to

malignant Feavers. Those that drink Wine, are sure to die for it.

Another comes by Contagion or Infection, in which case Purgers and Vomitors must be omitted, and only the malignity resisted.

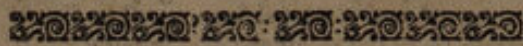
Article, V. Of the Sweating-sickness, the malignant Feaver with Cramping, and that with the Cough and Catarrh.

The *Sudor Anglicus* or sweating-Feaver, began in England in the daies of Henry the seventh, vexing the Patients with extreme Head-ach, Unquietness, Panting of the heart, perpetual and plentiful sweats. The Cause is said to be the moist and Venemous Constitution of the Air, enemy to the spirits, Heart, and more subtile part of Humors; some peculiar Influx of the stars concurring to the said Corruption. 'Twas Cured meerly with Sudorificks, viz. Sorrel Water, Scabious water, *Terra Sigillata*, &c. The sweat was continued twenty four hours together. The Patient was not permitted to sleep til the sweat was over: nor to be uncovered, but was in the mean while refreshed, with the Juyce of Citrons, Pomegranats, &c.

The Malignant Feaver with a Cramp, which arose in Germany in the year 1596. Does vex the Patient with sundry Symptoms, and the Cramp among the rest. Many were suddenly taken, some with falling-sickness, others with the Apoplexy, in some ravings did endure for some daies, by reason of the Contagion, which in the space of two years after, did Grew it self, spread abroad, &c. 'Tis Caused as was thought, by peffilent Ichors or blood-waters, and malignant Vapors infesting the Nerves. Which were judged to arise from bad diet occasioned by a general Dearth. In the Cure, the bad and Venemous matter was removed, and the Nerves being debiliated were made strong again. See touching this Disease a discourse of the Physicians of the University of Marpurg; and Sennertus, Book 4. Chap. 26. *De Febribus*.

A Malignant Feaver with a Catarrh and Epidemick Cough, arose in the year, 1580. And about the rising of the Dog star or beginning of the Dog daies, it ranged almost all Europe over. It took the Patients with a feaverish heat, Head-ach, and dry Cough, pain of the breast and *Septem Transversum*, roughness of the Jaws, shortness of breath, &c. 'Tis thought to arise from the moist constitution of the foregoing years, and continual

blowing of the South wind. The Feavers Cause might be the Rheumatick matter, diffused through the Veins, unless haply, the Feaver being the primary Disease, Nature endeavoured to eject part of the Humor she was troubled with, that way. In the Cure respect was had to the Humor which Fomented the malignity, which was expelled, and the malignity it self which was encountered with *Alexipharmaca*, and the Reliques of the Humor were altered. To the Member affected which was assisted by appropriate Medicaments.



Title, VI. Of Pestilential Feavers.

A Pestilential Feaver, is a continual putrid Feaver, which arises chiefly from the Air and Contagion, kills most it seizes, receives Putrefaction and heat from the destructive and Venemous Nature of the poisonous Seminary, and afflicts the Patient with Bubo's and Carbuncles and greater Symptomes than are usual in malignant Feavers.

Its SIGNS are, Symptomes Fewer and milder than are usual in the Plague: of which we shall treat in the next Chapter, see more in the Differences.

The CAUSES are the same with those of the Plague, and differ only in respect of the Contagion, Vehemence and Magnitude.

The CURE is hard or easie according to the multitude, Paucity, Benignity or Vehemence of the Symptomes. Regard is therein to be had, both of the Pestilential Venom and of the Putrefaction and Feaver, which are to be compared one to another. Tis Performed. I. By *Sudorificks* not very hot, especially if the malignity and Putrefaction are more urgent. Distilled waters are most efficacious; and Volatil salt of *Harts-horn*. II. By *Blood-letting*, before the malignity be shed abroad into the whole Mass of Blood, other things being considered which are contained in the general Precepts. III. By *Purgation of the first Passages*, especially by Clysters, especially if bad Humors abound be the Cause; but Antidotes must be given afterwards. IV. By *Application of Vesicatories*, to the Thighs, Armes, the bending of the Arm, as

or would

the place shall advise, to which the matter we would reveal or derive, does take its Cause, or about which tis chiefly resident.

This Feaver admits a threefold Division.

I. One sort comes with the *Pestilence*, another is *without the Pestilence*.

II. One sort in which *Both Putrefaction and malignant* are at the Height. Then the Patients are extream weakened and by reason of the Putrefaction divers Symptomes, as watching, Head-ach, Unquenchable thirst, &c. Shew themselves. Another in which *Putrefaction is high and the malignity remiss*. Then the Patients are not so much weakened, the Heat in the outward parts is answerable to the Putrefaction til the state; about which time, if the Patient must die, the outer parts begin to be luke warm, & soon after grow cold. Another, in which the *Putrefaction is remiss and the Malignity Vehement*. Then the Feaver is gentle and the Heart exceedingly hurt. It kills the Patient, while the Patient and Physitian are secure of any danger.

III. One sort is believed to be an *Ephemera*, another *Humoral*, another *Hectick*. But because the spirits are not only heated, but also corrupted; because the heart is not only affected in its temper, but vitiated in its substance; no Pestilential Feavers, can be either *Ephemera's* or *Hectick*. Howbeit, because some difference appears among them, and now the heart it self, at another time the spirits, and another while the Humors are most affected; by reason of the similitude it has with others properly so called, it may receive such a Denomination.

A Single Chapter, Of the Pestilence.

The Pestilence is a Contagious Disease of the Heart, bred of a Venemous and Contagious matter, Suddainly and mortally afflicting all the Actions of the Heart, with an Heap of all kind of Symptomes.

It is a Disease, and that. 1. *Epidemick*, because of the common Cause and of the infection. 2. *Joyned with Putrefaction*, so as not to be judged of chiefly thereby, for so a *Pbthisis* shall be more pestilent; in putrid Feavers there should not be more heat than in the Venemous sort; Antidotes were needless; nor does it alwaies cause a feaver, as appears by many instances. 3. *Venemous*, because it oppresses all the vital faculties, and suddenly kills.

The

The **SIGNES** are, either of it *when coming*, as 'tis being in neighboring places; the proceeding of such things as may infect the air, such as filthy vapors issuing from the earth, corruption of fruits. Effectes of the aire enclining to corruption as are, great abundance of toad-stools, withering of plants, multitude of Insects, frightening of the Cattle, mustiness and clamines of bread exposed to the night Air, soon stinking of flesh, plenty of small poxe and measles, &c. Or *present*, a suspition whereof is, when very many that are taken sick die. if it creep from one sick person to another. If the patients be suddenly extremely weakned. If Bubo's and carbuncles appear in a place, the aire being infected. If the spots called plague tokens, be seen upon the dead bodies.

The **CAUSE** of the pestilence, is a *venomous & contagious* matter. This proceeds. I. From the Aire, which is *sometimes* prepared to receive the pestilence, by mutation of the sixt Qualities; *sometimes* 'tis corrupted, without any mutation; either by permission of sundry exhalations, breaking forth of the earth and waters, especially when Saturn passes through the signes of Aries, Capricorn and sagitarius, being after an accure manner and totally adverse to the Heart; or by some hidden aspect or Influxe of the stars. II. From *Bad Diet*, where the saltiness of the Humors, the sooner shewes it selfe, if som occasion happen from the Aire. III. From the *witchcrafts* of Necromancers living and infecting; and of dead witches which are laide in their graves, besote their Heads are seperatted from their shoulders. IV. From *imagination and Terror*, which agitate the humors in the body, stir up the pestilential teminary, and plant it deep in the heart. Touching the *Contagion*, we have spoke in the first Book,

The *Physitions Care* respects three things; *Preservation, cure, and Removal of Symptoms.*

As for the point of preservation. I. The *Causes* which infer the pestilence must be removed. II. The *Bodies* must be made less apt to receive the pestilence. Let therefore the body be purged thrice a week with pil ruffi a scruple. Let not the body be weakened by *Blood-letting*. Let *Meat* be used of excellent Juyce sawled with antidotes. An *Yssue* may sometimes be made, to give the Humors scope. The *Air* must be kept pure with fier and perfumes. Let the nostrils be smeared with vinegar oyl of scorpions, &c. Let *Amulets* be hanged about the neck of quick silver inclo-

ed in a nut-shel; Arsnick, &c. Nor let any thing be mingled with the Arsnick to abate 'its Vertue. Nor let these amulets be heated by motion, least they penetrate through the pores into the Body. Amongst Antidotes *Treacle* is comended, *Electuary de Ovo*, *Elixir proprietatis*, *Bezoar stone*, Salt of vine branches and of *Millefoile*. *Extractum Juniperium*, &c. Let *Hot* medicaments be tempered, and first macerated in vinegar.

The **CURE** is absolved, I. By *Blood-letting*, which must be performed after the taking of an antidot if there be so much plenty of blood, that a putrid seaver is feared in any side, if there be no pain; if there be, on the Arme of that side where the pain is unleis a Carbuncle shal cause great paine and inflammation, in the space of twenty foure Houers. II. By *purgation*, after an antidote has bin given, if il humots give suspition of a seaver to follow; if the pestilence have risen from an inward corruption of Humors. III. By giving *Sudorifics* and *Alexipharmaca* among simples the *Hercinian Unicorne* is commended. The *blood* of a Rhinocerote, five drops given in sorrel water. A bit of his hide boyled in water of sorrel in which red hot gold must be quenched: The juyce of the Pap of the Brasilian fruit called *Muracujao Hasi*. The *Berry* of Molluca powdered to the quantity of five graines, in rose or forel water. The juyce of *Galega* or Ruta Capraria, the quantity of three ounces, &c. Of compounds, the Syrup *Melissa Fernelii*; *Sepetalus* his Syrup or *succo Galega*, Quiding of elder berries, with Treacle Vinegar, *Crollius* his *Elixir pestilential*, *Diascordium*, three drams, especially in women with child and in children, *Pouder of smaragd stone prepared*, *Bezar stone* of each eight grains. *Hiacynth* prepared three grains see *Sennertus* of Feavers towards the End. In the *Use* of these things observe. Hot antidotes like treacle must be tempered with such as are of a colder nature. That treacle and Mechrdate, and other stronger medicaments must not be given to women with child, nor to children. Such as have weakness in their stomach and Head, must abstaine from Camphorat Medicaments. Some Medicament is to be given or other thrice every four and twenty houers. At first the *medicaments* must be *very often changed*, least nature growing accustomed, come not to be moved thereby. Waters, Spirits, and such other things as wil most easily penetrate must be given principally. The patient must abstaine from sleep til he or shee have under gone two sweats

sweats. While the sweating lasts, refresh the Patient with the Juice of Citrons, Carduus water &c. The sweat being finished, cold Air must be avoided, and the sick refreshed with meat.

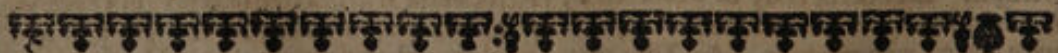
Symptomes of the *Pestilence* are, the *Bubo*, the *Carbuncle*; the *Burning Feaver*. The *Bubo* imports less danger, if it be great and eminent, if it breaks out at first, and in the groins. It is more *deadly*, if it be lead colored and black. If it lie lurking under the Skin. If it breaks forth beneath the Neck or under the armpits, on the third or fourth day. *Most dangerous*, if it vanish and leave the Patient weak. When it *Strikes* in it must be called forth, either by fixing a Cupping-Glass, or with a pultis of Radish Root and *Scrophulary* the great, with a little of Salt, Vinegar. When it *comes far out*, it must be drawn to the more ignoble parts; from the Neck to the hollow of the hand, from the Groins to the soles of the Feet. To this purpose there is an useful Cataplasme made of two ounces of the greater *Scrophulary* Root, Radishes one ounce, beaten, and with one ounce and half of the strongest Leaven, and boyled in Wine Vinegar, and so made into a pultis, and applied to the Palm or hollow of the Hand or the Sole of the Foot, on that side on which the *bubo* is. It must be

renewed three or four times in a night. Being *Fixed*. 1. It must be often drawn with a Cupping-Glass and store of flame, without Scarrification. 2. The Cupping-Glass being removed, let it be covered with a ripening *Cataplasme*, and drawing, made of the Roots of *Scrophularia*, Salt, Black Sope, and strong Leaven boyled in Vinegar. 3. After six hours let a Cupping-Glass be again set on, and let the Skin be cut with a Lancer or smal Knife. 4. Let a *Cataplasme* ripening and drawing made either of a *great Onion* hollowed, filled with Treacle and roasted in the Embers til it be soft; or of the *middle rind of Elder* boyled in Cream, and mixed with Leaven; be laid on at Night, and often renewed. 5. Let the Tumor, the following day, be either cut or brok, and the Blood water squeezed forth; and let a mundifying or cleansing plaster of *Turpentine* wash't in *Scordium* water, and honey of Roses mixed therewith, be applied.

Touching the *Carbuncle* and *Feaver*, which is also entertained by certain symptomes, see in their proper places. See concerning the *Plague* *Peter Salius Diversus*, Joel Tom. 5. Sect. 3. *Septalius* in a peculiar Treatise and *Valerius Martini*. And so much concerning Feavers.



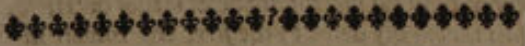
THE





THE
 EIGHTH BOOK
 OF THE
 IDEA
 OF
 PRACTICAL PHYSICK.

Of the Diseases of the Head.



Title, I. *Of the Diseases of the Brain.*

Chap. I. *Of the Distemper of the Brain without Matter.*

lastly of the *Jaws* and *Tonsils*. Unto the *Diseases of the Brain* are referred (as thereunto belonging, a distemper, (which the *Latins* call *Intemperies*) the straightness (or stoppage) of its passages, *Commotion*, *Inflammation*, *Hydrocephalus*, (being a cold Disease thereof proceeding from water and *Flegm*, *Contusion*, *wounds* and *Fractions*. The distemper (or *Intemperies*) either is *without matter*, or else with *matter*.

The *Distemper of the Brain without matter*, is the declining thereof from its due and right temper, through some external causes.

For the *Signs* and *Causes*, see of them in the differences.

The *CURE* is performed by *Alteration* and *Purgation*, lest that the Body, if it be either *Plethorical*, or *Cacochemical*, should attract more *Vapors*.

It is divided into four species, or *kinds*.

I. the first of them is hot, when the *Brain* declines unto an immoderate or overgreat heat. It is discerned and known by the beating of the *Temples*, the agitation within the *Cranium* or *Skull*, by the sleep which is either none at all, or else very short, and by the instability and

hitherto we have treated of Diseases in the general; the Particular now follow; and these are either such as are not *Venemous*, or such as are *Venemous*. Unto those belong the Diseases of the *Head*, the *middle*, and the *lowermost belly*, commonly called the three *Regions*. The Diseases of the *Head* are either those of the *Brain*, or of the *Eyes*, or *Ears*, or of the *Nostrils*, or of the *Tongue*, or of the *Lips*, or of the *Face*, or of the *Mouth*, or of the *Teeth*, or of the *Gums*, or of the *Cheeks*, or of the *Wesand* or *Windpipe*, or

and mutability of the Imagination. It ariseth from external hot causes, towit, Aire, mear, drink, & exorbitant affections, &c. It is to be cured. 1. By alteration and that by cooling medicaments, as well internal as external; and these not over strong, especially in children and women; having in them a mean and indifferent astringent quality lest that the humors should be either attracted, or dissipated; not too frequently applied and made use of, lest that they should introduce and cause a kind of senselessness or stupidity; and then lastly, they are to be mingled with dissolvents, when the distemper is in 'tis declination. The chief and principal of them, are the leaves of *Lettice* and *Purslan*; the flowers of *Roses*, *Waterlily*, *white* and *Red Popy*, and *Saunders wood*; together with those medicaments that are prepared and made out of those, such as are fomentations; which are to be corrected with such things as penetrate by reason of the thinness of their substance, as doth *Vinegar*, &c. These remedies are to be applied to the forehead, Temples, and Sutures. So soon as they begin to wax hot, they are to be changed; neither are they to be tyed on or covered with thick cloths, or linnen often doubled. For Embrocations and washings of the Feet, are most in request, the Leaves of *Sengreen*, *vine Leaves*, and the *Leaves of the Willow Tree*. The flowers aforesaid, as also of the *Elder Tree*, and the root *Rhodia*, a cataplasm made of *willow Leaves* and *Vine buds*. 2. By *Evacuation*, for the cause before alledged. 3. by a diet inclining to coolness more than ordinary.

II. The second is *Cold*, when the Braine declineth unto an excessive or over great coldness. And this is known by the swelling of the eyes, the palness, of the face, the heaviness of the head, propension to sleep, slothfulness and sluggishness. It proceedeth from things external, that either are cold in themselves, or at leastwise induce and cause cold. It is cured, 1. By *Evacuation*, if the body be Cacochemical. 2. by *Alteration*, which is effected by the use of things External and internal that are hot, and these must be taken after mear, and never before. The chief of them, are, the Roots of *Piony* taken out of the earth at the waning of the Moon, the root of round *Aristolochia*, *Castorium*. The flowers of *stachas* or *cotten weed*, *primrose*, pealings of the bark of the *linden* or *tye tree*, of flowers of *lillyes* of the *vally*, of *Rosemary*, *Bettony*, *Marjoram*, *Black chery water*, the water of *swallows*,

Treacle water. The Quintessence of *Rue*, of *Rosemary*, of *Succinum*, or *yellow amber*. Of condites, the *Indian nut*, *nutmeg*; *treacle*, *Mithredate*, the restorative *Confection*, called *Anacardina*, and *Alkermes*. *Distilled Oyls*, as of the *Wood Guajacum*, and of *sassafras*, taken either in waters, or else in smal morsels. The leaves of *Rue*; *Wild bettony* and the right *Verveyn*. Balsams, of *Lavender*, *Rosemary*, *yellow amber*, *Cloves*, *nutmeg*, &c. 3. by a diet somewhat inclining to warmth; where likewise suffumigations have their use and place.

III. The third is *Moist*, when the brain inclineth unto an overgreat humidity or moistness. It is known by the humidity that appeareth in the nostrils, and the eyes, by the Cataracts that follow upon it, and the propension unto sleep. It ariseth from some external causes that are not natural, and such as produce humidity; such as are showers of rain, the moon beams, &c. It is cured, 1. by *Alteration*, which is achieved by such things that being in their own nature moderately dring are mingled with coolers, and not strong sented or perfumed: but internally by decoctions, and especially that of *China*, & *Guajacum*, into the which a little veal broth (to allay and qualifie its driness) is to be put. Externally, there must be prescribed *Embrocations*, and those little baggs that we commonly call *saccudi*, made of *millet* or *Hirse*, salt thoroughly dried by the fire, the roman *nigella* or *nightshade* (commonly called *Gith* or *pepper wort*). &c. 2. by a diet conformable unto that that is prescribed to such as use the decoction of *Guajacum*.

IV. The fourth and last species is *dry*, towit, when the Brain recedes unto an excessive and immoderate dryness. It is known by the hollowness of the eyes, want of sleep, deformity of the face; the sharpness of the senses, and the Causes afore going. It ariseth from External causes; but more especially from the over great evacuations of the body, excessive and frequent waterings, fasting or an over spare diet, melancholly or sadness of the mind, and overmuch Study. It is cured. 1. by *Internal moisteners*, as for instance, the emulsion of the greater cold seeds, and *Violet flowers* or externals, such as is the top or froth of whey. 2. By a diet more than ordinarily moist; such as is the fat broths made of yong flesh, eggs rere boiled and sup'c up, and a bath of sweet water, &c. And here Salt must be very sparingly eaten, or rather altogether carefully avoyded.

V. A Fifth and last *Species* or kind of the Brains distemper is *Compound*; the Nature and reason whereof may be known from the connexion of the simple or single distempers; so that it is no way requisite or necessary, that we here speak any thing more concerning it.

Chap. 2. Of the Distemper of the Brain with Matter.

THe distemper of the brain with matter is, the declination thereof from its *due temper*, caused and brought upon it both by external and internal causes, to wit, the humors, and flatulencies or windinesses.

The **SIGNS** are, the Progress of the internal causes, and the alteration and change of the disease at the first appearances of the Moon.

The **CAUSES** are internal, to wit, humors, and Winds or windinesses, which proceed either from the weakness of the brain, or else from the repletion of the inferior parts.

The **CURE** is performed, I. By an *Evacuation*, and that as wel *General*, where a regard must be had unto the *Pills* that are to be taken, to wit, that in respect of their ingredients ought to be made most efficacious, and then given in the morning; unto the whole Body, which ought to be purged; unto the absence, and presence of a Fever, lest that there be an Evacuation of such things as are not concocted; unto the *Clysters* that are to draw back the peccant matter, and these are by no means to be omitted: as *Special*, where in the first place are to recourted those Medicaments that are usually thrust or put up into the *Nostrils*, (we cal them *Errhina*) and these ought to be such as are most of al drying, provided notwithstanding that there be nothing amiss in the *Eyes* and *Nostrils*. Secondly, Those things that provoke unto sneezing, (we term them *ster-nutatories*) especially if the Head be filled with Vapors, and within cherish a gross and thick snotty matter. Thirdly, *Apoplegmatisms*, if the Lungs be free from an Ulcer, and the Humors not over thin. Fourthly, Those Remedies which we cal *Cauteries*, *Setacea*, *Topicks*, &c. II. by Correction of the *Distemper*.

It is divided in a Threefold manner.

I. The first is according to its *Essence*, when the matter is generated in the Brain. It is known by this, that those Symptoms that follow upon the Affect do presently appear; that they continually afflict, unless haply the

matter be generated in the Head by certain intervalls and degrees; and that the Causes affecting the Head went before. It *ariseth* as wel from a fault in the Brain through an ill concoction, as from the retention of the excrements thereof, by reason of the hurting of the expulsive Faculty, or its passages. The *Cure* differs not from that which hath been before spoken of, and of which we shal speak further in the following discourse.

Another division of the Brains distemper is, by *Consent*, (or sympathy, when the matter is transmitted and derived unto the Head from some other place. It is known, by the general signs, of which we have spoken in the first Book, and first Title thereof. It proceeds likewise from the same causes, of which we have there at large treated. In the *Cure*, 1. We ought to begin with the part transmitting, but if there be any *Crisis*, there is nothing to be applied, unless there be a vehement motion of the matter. 2. There must be a *Revulsion*, or drawing back, by opening of a Vein in the Arms or Thighs, by Cupping-Glasses, by Clysters, by frictions or rubbings, and by cauteries. 3. There ought to be used repulsion, or Driving back, by Medicaments made of Vinegar and Roses (we cal these *Oxyrrhodina*) unless there be a discovery made either of a Fever, or a Catarrh, or overmuch watchfulness and want of sleep, by reason of some wound either in the *Cranium* or skul, or else in the Membranes of the Brain. 4. There ought an *interception* to be made: The Differences whereof are various, according to the Variety of those parts from which the matter is sent. 1. From the *whol body*, as in Feavers; and then we must rather study to make use of revulsion and Evacuation, than Repulsion or driving back. 2. From the *Stomach, Spleen, Liver, Rains, Womb, Diaphragme* (or Midriff) and the *External parts*. And then it is known by the effects of the transmitting parts, and accordingly the *Cure* is to be taken from them.

II. Another is from a *wind* or vapor, which is known by the tense and feeling of an Extension or stretching out, or by an heaviness in the part affected, a kind of ringing noise in the Ears, the extraordinary beating of the Arteries, and the Vertigo, or lightness and giddiness of the Head. It *ariseth* from the same causes, of the which we have already spoken in treating of the causes in general; unto the which in special, there may be added, as thereunto appertayning, scents or smells, to wit,

things of an ill Savor, Vapors arising from Metals, the smoke of coals, &c. It is *Cured* diversly according to Nature and diversity of its *Species*, or severall kinds. It is divided in a two fold manner. 1. The former division is taken from the *external Causes*, as Metalline Vapors, &c. And this is expelled by *Zedoary*, by the smoke of coals, in which case (as the remedies thereof) there is required an Air free from all Savors, Treacle Water, and Sternutatories, or such things as cause Sneezing; by the wind, either when cold, or hotter then is usual; for the remedying whereof, such things as are thereunto opposit, are necessarily required, and very serviceable. Another proceeds from things internal, whether overhot, or overcold. 2. There is another *Species* of it by its *Essence*, and then a pain and heaviness of the Head undoubtedly preceded, without any affects of the inferior parts. This is to be cured by internal discutives, and the scent of things that are appropriate unto the Head. There is another kind thereof that is by *Consent*, or agreement with some other parts; and then the Neck veins are distended, the Urins (in the top or superficies of them) filled full of little windy bubbles; winds arise, either by the fore part, with the extension (or stretching out) of the Breast, and the beating of the Arteries at the very bottom thereof; or else by the hinder or back part, together with a distension of the Veins and Arteries of the same aforesaid part. They arise from other parts that lie underneath. In the *Cure*, regard is to be had, first of all unto revulsion, or drawing back the offending matter by Clysters somewhat stronger than ordinary; and next unto repulsion, or driving back the said peccant matter, externally by Application of things made up of Vinegar and Roses (as above said) and internally by the Conserve of Roses, &c. And then lastly, special regard ought to be had unto Evacuation by purgers corrected with Carminatives.

III. Another Division is from the *Humors*; and this is either proceeding from the *Blood*, or else it is *Cholerick*, or *Flegmatick*, or *serous* and *whyeie*; or otherwise it is *Melancholy*, and *Adust*, as consisting of burnt Choler.

I. The Sanguin Distemper of the Brain proceedeth from the blood either over thin, or too thick. It is known (unless it proceed from some external Cause) by the extension and heaviness of the Head (Especially when the South West wind blows) the redness of the Eyes, the gentle and moderate heat, and by the pain of

the forepart thereof from the Ninth hour of the Night unto the third hour of the morning or day following. It *arise*th from a Plethory and its Causes. It is derived into Act, and made to appear by the extream and over vehement affections and passions of the Mind, much drinking of wine, and by such other things that cause heat or pain in the Head. The *Cure* must forthwith be set upon, and attempted, lest that an inflammation or some other *affect* should flow therefrom. And this is *accomplished*, I. By the Diversion of that blood that is flown into it, by opening the *Cephalick* or Head Vein, or else the *Saphena* and Foot Vein, if there be a suppression of the Monthly Courser, or of the *Hemorrhoides*; (for by no means we are in this case to attempt the opening of an Artery, for fear that the Tumor *Aneurisina* should follow) which aforesaid blood-letting doth both Evacuate or empty forth, and draw back the peccant humor: as also by the Application of Cupping-Glasses unto the Loyns, shoulder blades, and Neck; and likewise by a gentle Evacuation: as also by repulsion or driving back, which is effected by the Use of repellents that (in the winter) are potentially cold, but in the Summer time actually such; if the sick person be young, unless there be present a Catarrh; and this repulsion ought to be instituted by frictions or rubbings. II. *By a sensible drawing forth of the blood that hath flown in* by the passage of the Nostrils, rubbed hard and chafed with *Milfoil* or *Yarrow*, by opening of the Vein that runneth strait along into the forehead, if it be the hinder part that is affected; by *Discussion*, and by a Convenient Diet.

II. The Cholerick distemper of the Brain proceeds from the Superabounding of choler. It is known by that sharp and pricking pain, especially on the right side; by the extraordinary burning heat; by the deprivation of the actions of the Brain; by the many, and those very yellow excrements of the Ears; and lastly, by the bitterness of the Mouth. It *arise*th from Causes generating Choler. It is divided into that which is such by its *Essence*; in which the Cure is to be administered, I. By opening the Vein of the right Arm, after a gentle Clyster, and without the ordaining of any preparative before it, if there be not any Fever present. II. By *Preparation*, (if it be needful) by cooling and moistening Cephalick Medicaments, which ought to be more or less strong, according to the power and strength of the choler. III. By *Purgation* with *Aloetics* (that

(that is such Medicaments as have Aloes for their basis) and other Remedies that are specially appropriated unto the Brain. IV. By waisting and *consuming* the remainders or reliques, where Camphire (by reason of the over much want of sleep) ought carefully to be avoyded. V. By *Digestion*, in the use of digestive Medicaments. VI. By a *Diet* that is wholly opposite unto the distemper. And Secondly it is divided into that which is by *Consent*; in which we are to proceed, according to that way and Method formerly mentioned, and laid down.

III. The *Pituitous*, or *Flegmatick* distemper of the Brain is *known* by the signs alleadged and mentioned in the cold distemper of the Brain. The sleep in this case is very profound and deep, or at lestwise overmuch, unless haply the Flegm being loosened and dissolved, a Catarrh and Cough be thereupon excited. The pain is most of al in the hinder part of the head, afflicting the Patient from the third hour of the night unto the ninth. There is likewise an extraordinary paleness in the face, unless perchance it happen to be colored, or (as it were) painted al over with a certain kind of redness, through the dayly & continual residence of a part of the blood brought and derived thither. It *arise*th from Causes generating flegm, more especially from a cold Brain, a hot and moist Liver, which transmits thither a sort of blood that is full of Vapors. The Cure hereof is something difficult, especially in the winter time; and this very Disease doth easily degenerate and turn into the Apoplexy and Palsie. The cure is performed, I. By *Alteration*, after the clearing and Evacuation of the first waies and passages; and this must be done by Cephalick Medicaments hot and dry, at first benign and gentle, and afterward by degrees stronger; and these ought frequently to be reiterated; and here we may prosperously Act by the Decoction of *Chyna* Root, *Guajacum*, and *Sassafras*. II. By *Purgation* now and then interposed during the time of Alteration; and here the Pills *Affajere*th, *Aurea*, and *Cochia*, or the *Extract* of these, have their place and use. III. By a particular *Evacuation*, by medicines put up into the Nostrils, by Masticatories, Gargarisms, washings of the Mouth, &c. IV. By the *Application* of *Topical* Remedies, among which Fomentations, Embrochations, Sacculy or little baggs, (by al which, the matter is insensibly evacuated) have their place and use. V. By *Application* of a Cautery unto the coronal Suture, or else by making an Issue in

the Neck, if the Distemper be altogether refractory, and wil not give place, nor yield unto the aforelaid Remedies. VI. By *Corroboration*, which is effected by appropriate Cephalicks. VII. By a *Diet* that is opposite and contrary unto the Cause and the distemper. It is *divided* into that which is from thick Flegm; (where preparatives have their place, as being of singular use; neither may blood-letting in this case be safely allowed of) and that which arise from Flegm that is thin and fluid, and which excites and begets a Catarrh; and in removing of which, sneezing wort, and al sorts of Sternutatories, and *Errhina* (liquid Medicaments to be put up into the Nostrils) that are over strong and violent, ought carefully to be avoyded.

IV. The *Serous* or *Wheyish* distemper of the brain is *known* by those signs and tokens that are before mentioned. It is derived unto the Head, either sensibly and by degrees, especially together with the Arterial blood it self, and likewise the spirits; or else al at once, by reason of some external more forcible Cause, to wit, overmuch drinking of wine, anger, violent exercises &c. It is *Cured*. I. By the *Evacuation* of the *serous* Humor from the Brain, without the premising or use of any preparatives whatsoever. This Evacuation is performed. 1. By a purgation of the Humor with such Remedies as draw forth water. 2. By blood-letting, especially if there be present any Feaver (although never so gentle, and an extraordinary heat which moveth the serous part of the blood unto the Head; and in case the accustomed Evacuation be suppressed. 3. By the Exhibition of Sudorificks that are over hot, as for instance, *Antimonium Diaphoreticum*, *Bezoarticks*, the *Lunar Fumary*, &c. 4. By the *drinking* of *Diureticks* which are likewise very good and profitable to the spleen. II. by *Correcting* the Distemper; for which purpose we usually prescribe the powder of a mans bones, drying Lotions, &c. III. by *Diet*, touching which see and consult the practical Physicians.

V. The *Melancholy* distemper of the brain is *known* by the dotage that accompanyeth it, together with fearfulness and sadness, a pain especially on the left side, turbulent dreams and oftentimes a sudden loss of al motion. It *Proceedeth* from Causes that generate Melancholy. The Cure hereof is easie in its beginning. It is *Accomplished*, I. by the reiterated *Preparation* of the *Melancholy* Humor, (after the *Purgation* of the first waies and passages)

passages) by the use of those medicaments that both heat and moisten, among which the syrup of *apples* is excellently good. II. By the evacuation of the said humor by purging potions, at first, such as are gentle, but afterward such as are stronger in operation (and here for this purpose *Lapis Lazuli* is much commended) adding thereunto such things as moisten; after which there must immediatly follow an evacuation by the frequent use of those remedies that we term *Errhina*, and other such like. III. by corroborating and strengthening the *Brain* by the confection *Algermes*, with other such like confections. IV By *diet*, in the which vinegar (in regard that it doth ferment, and as it were leaven and fowr the melancholly humor) is principally to be avoided. It is divided into that that is *Essentially* such; (in which likewise the opening of the cephalick or head vein of the left arme, and a copious letting out of the blood, if it be black, but a more sparing evacuation thereof if pure, hath its place and use, and into that which ariseth from the suppression ether of the *Monthly Courses*, or of the *hemorrhoides*, in which ease revulsion, and the opening of the Ankel vein is to be put in practice.

VI The *Atrabiliary* distemper of the brain is *Known* by the want of sleep, and extream dobbing of the sick party, and it *ariseth* from such causes as foment and supply a melancholly Juyce, and together with these (as it were burning of the same aforelaid Juyce) the extraordinary heat of the bowels may do very much. The *Cure* is very difficult, in regard that it to far exceeds from the Temperament of the Brain. It is *atched*, I. By an *often repeated preparation*, by coolers and moisteners, an evacuation of the first Vessels or passages being before premized. That compound which we commonly cal *Cachund* (of which hath already bin spoken in the melancholly distemper) hath here likewise its place and use. II. By a frequent and reiterated evacuation of the black choler by medicaments, such as they term *Melanagogues*, well mingled together with moisteners; as also by those things that peculiarly and properly purge the brain. III. By *digestion*, and that by *Topicks*, and sweet water baths, if yet the distemper wil not give place, nor be removed, then let the patient drink the whey of milk together with such things as are specifical remedies against melancholly, and of a moistening quality. It is *divided*, I. into that which is such in its very

sence; (where the opening of the cephalick, or the common Basilick vein hath its place) and that which is caused by the suppression of the *courses*, or the *Hemorrhoides*; of the which sufficiently above. II, into that which is from the blood burnt or over heated; in which distemper the sick party is evermore very apt and propense unto laughter. And this is to be *cured* by letting blood; in the same manner as was that that was generated by *yellow choler*, (in which a brutish kind of dotage, and fierce anger gets the upper hand) and that likewise that had its original from the *Melancholly humor*, in the which pensiveness or sadness, and a continued silence, or else haply (after a while, that this silence is broken) a tedious extream talkativeness hath the predonance, &c.

Chap. 3. Of the straitness or narrowness of the passages of the Brain.

The *Straightness* of the passages of the Brain then happeneth when the said passages are either obstructed; or compressed by their causes.

Those passages are the pores of the Brain, which is of a spongy substance; the pores or passages of the stomach, the Veins, Arteries, Nerves, and the sutures of the Skul.

The SIGNS are taken from the diminution, or else the utter abolition of the actions of the Brain. The *Causes* are, either obstruction from pituitous and flegmy humors, blood poured forth out of the vessels, grosse and thick Vapours; or otherwise, *Compression*, and this either from the skul, by reason of some violence offered thereunto, or else from blood distending the vessels, (from whence they are affected with a flegmatick distemper) or else haply such as is shed forth and fallen into the substance of the body, by reason of the abundance of its thinnels, or acrimony; a pituitous or flegmy humor having first obstructed the Basis of the Brain; and lastly, by an hard tumor or swelling.

The CURE is Various according to the variety of the differences.

The differences are taken from the many and several causes.

I. One difference is from *Causes External*, to wit, the fumes that arise either from coals, beer, or new wine, (commonly called musty) which even as it were Suffocate and Choak the sick person: And then in this case the patients

are

are to be exposed into a free and wholsom Air. The vapours are to be discussed with *aqua vitæ* mingled with treacle; and then a vomit or sternutation is to be excited. Or else by the *Compression of the Skul*, from some blow. And then in this case the standers by and the Patient himself are to be advised withal. The brain is to be elevated or lifted up, as we shal shew further when we come to treat of a fracture. Or else it may proceed from the compression or defect of the *Sutures*, which can no way be corrected; or lastly, it may have its rise from the Humors and Vapors by their *Obstruction*, which said Humors, &c. are to be discussed by Fomentations.

II. Another difference ariseth from *Internal Causes*; to wit, I. From *Blood*, either poured forth without their Vessels, and so obstructing the Meander-like winding passages thereof; or otherwise so distending the Vessels, that of necessity the passages must be compressed. And then for the most part a *Plethory* is present and joynd therewithal, and the blood oftentimes breaks forth by the Mouth and Nostrils: unless this be done, it hasteneth on an inflammation, &c. by its putrefaction and rottens. It is to be Evacuated and drawn back by blood-letting and Cupping-Glasses: and then it is to be derived by opening the forehead or the Tongue Vein. II. From *Flegm* that is clammy and thick, either compressing the basis of the Brain, or else obstructing the original of the nerves, & so shutting up and imprisoning the Animal spirits. Then some Causes generating *Flegm*, heaviness of the Head, dimness or darknets of the Eyes, the suppression of the wonted Evacuation of *Flegm* by the Nostrils and Jaws, went before; unless this be timely and speedily Evacuated, it causeth unavoidably the Palsy, &c. The Cure is to be begun and proceeded in after the same manner that we shewed before in the Pituitous or Flegmatick distemper. III. From *Vapors*, that proceed, either from more than ordinary food taken in, or else such as is excessively vaporous and windy; from which the sick person must now carefully abstain: or otherwise from Humors that stick fast in the lower parts, which are to be Evacuated. Or else in the beginning of Feavers; where there is special regard to be had unto the quality and Nature of them, and then accordingly the said Humors are to be drawn back, and depressed. IV. From a *Tumor*, which is hardly ever discovered while the sick person is alive, neither is it by any means curable.

Chap. 4. Of the Commotion of the Brain.

The commotion of the Brain, is a removal of the same from its natural place, by reason of some External and violent causes.

The Subject of this distemper is the brain, but more especially according unto the superior parts thereof. The Signs hereof are, a sudden Consternation of the sick, intomuch that they become, as it were, altogether dumb, speechless, and likewise altogether deprived of motion, only they open their Eyes.

The CAUSE is either some violent blow, or dangerous fall, or the extream and over long noise of Guns and Thunder-Claps; which either only disturb the spirits for the present, or else they cause a fracture of the skul.

The CURE is accomplished, I. both by the *Revulsion* of the Blood by opening a Vein, that so it may no longer too abundantly flow thereunto; as also by *Repulsion* or driving of it back again, evermore avoiding such things as are dry & astringent, lest that the pores should be obstructed, and the very breathing intercepted. II. by *Evacuation* of the blood (if any of it be shed forth, by opening a Vein, as well that we call *Puppis*, that is above the *Lamb-doid* suture, as that other which is under the Tongue. III. by *Discussion*, and that at the first joynd together with *Repulsion*, but afterward used alone, by those Medicaments that heat and moisten.

It is divided into that which more Moderate and gentle, and that that is more grievous.

The Lighter and gentler of it is that, in which the Animal vertue is only with violence drawn back into the brain, & there followeth no rupture of the Vessels. And then there happeneth only a kind of drowsiness or sleepiness, and this likewise not over profound.

The more grievous Species hereof is that, in which also the parts of the brain are removed from their Natural Scituation, the passages are smitten, and the vessels broken. Then there chanceth an *Aphony*, or loss of speech. Blood is plentifully poured forth by the mouth and Nostrils. Vomits likewise (by the content of the Stomach) infest, and exceedingly afflict the Patient. And after this, the matter becoming putrid and rotten, there ariseth a Feaver,

ver, a dotage, a *Sphacelus* of the brain, &c. And the matter being thrust down unto the Nerves, other dangerous Symptomes follow thereupon.

Chap. 5. Of the Inflammation of the Brain.

The Inflammation of the brain is a swelling thereof proceeding from blood poured forth out of the Vessels into the void spaces of that part, and there putrefying.

The SIGNS are, an acute and continual Fever, which from third day to third day is exasperated; a perpetual doting, which began sensibly, or gradually, and by little and little, a red kind of color and deformity of the Face and Eyes, the Membranes being dried up by the burning heat, Salt and sharp tears, the Excrementitious moisture flowing downward (as it were) of its own accord by reason of the weakness of the part, a swift and quick Pulse, &c.

The CAUSE is, blood falling out the Vessels, and there putrefying, the transpiration there of being intercepted. It is Poured or emptied forth, either by reason of its store and over great abundance: or else by reason of its thinness and acrimony; those things likewise helping forward and furthering the same, which either carry the blood to the Head, or else at leastwise violently move and stir the same; and such are, the heat of the Air, pain, striking, a wound, wrath, &c.

There is but very little, or rather *No* hope at all of the Cure hereof, if a Convulsion follow upon it; if the Urin be white and extraordinary clear, because then the choler is forcibly drawn up into the Head; if a doting being at the first present, there follow thereupon gnashing and grating together of the Teeth by reason of the Convulsion of the Muscles in the temples, and Jaws; if it tend to a suppuration in regard that the Pus or filthy Corrupt matter cannot possibly be evacuated within or betwixt the Skul and the Membrane. There may be some hopes, if on the critical day store of blood flow forth at the Nostrils; if there be much (and that hot) sweat from the Head; and if after the height of the disease there be an Evacuation of abundance of yellow choler by the belly. There is but small hope of a Cure, if many of the Functions be hurt and empaird; if there be a trembling of the Tongue; if a kind

of cold stiffness infect and invade the Patient, after he hath voided downwards white Excrements; if there appear to fall from the Nostrils a black drop, and that such is sincere or bright, in regard that it proceeds from a very vehement adustion; and lastly if they scrape together Straws, &c. It is Performed (if at all,) I. by *Revulsion* or drawing back of that Humor that floweth in, either by opening of the Cephalick Vein, or else, 1. Of al the Median or middle Vein (if there be present great store of the Humor) but yet not unto fainting or swooning away: or otherwise by Cupping-Glasses with a profound and deep Scarification, in the parts both above and beneath; or else by some other kinds of Revulsions. 2. By *Repulsion* or driving back by the frequent use of Repellers, unless the matter tend towards, and as far as the skin of the Head; or else by the applying unto the head, being close shaven, Remedies a little warm, tempered and qualified with Vinegar that is not over strong, if there be not present either an internal, or an External heat, or if there be any such heat, then by Medicaments that are cold. 3. by *Interception*, by the rolling of twath bands about the Neck. 4. by a *gentle Purgation*. II. by *Evacuation* of the Humor that is already flown in; and this must be performed by opening the Veins of the Head, those of the Nostrils, those under the Tongue, and the Application of Veniferatories, and a Cupping-Glass unto the fore part of the Head. By Discussion through the use of Medicaments made up of discutives, the Alabastrine unguent. III. by a *Diet*, in the which emprinets and over long fasting must be avoyded as pernitions and extream hurtful; &c.

It is divided after a Threefold manner.

I. The first species in the division is that which *Precedes* a Fever, in which we are allowed to purge while the feaver is absent; & more especially if there be present an extraordinary cacochymy, cupping-glasses are to be imposed & applied unto the very top of the crown, with scarification following thereupon. Another kind thereof *followeth* the Fever, in which likewise, we may purge with those Medicaments that are gentle and moderate, especially if the turgency or heightening of the Matter require it.

II. Another sort thereof ariseth rather from blood than Choler; in which a greater quantity and portion of the blood is to draw forth by opening of a Vein: but then there is likewise another, which proceedeth from Choler rather than

than from blood; in which we ought rather to purge, than use any other means.

III. Another is an Inflammation of the Membranes of the Brain; unto which the signs before alleadged do very fitly agree. Another there is of the substance of the Brain it self, in which there is at the first a pain seizing the Head, which by the hinder part thereof penetrates even unto the very nook of the Neck. In this distemper the sick persons do not dote, but yet notwithstanding they lose both their external and internal senses; they likewise speak very little, or not at al, &c.

Chap. 6. *Of the Tumor Hydrocephalus in the Head.*

Hydrocephalus is a swelling of the Head, arising from the collection of some serous or wheyish Humor in some one part or other of the Members that constitute the Head.

There is in this distemper no need at al of SIGNS; for the disease may be sufficiently known by the very sight of the party. It is rather the disease of Infants than of persons of years and strength.

The CAUSE is a Humor that is waterish, wheyie, and sometime dreggy, yea moreover also bloody.

The CURE is exceeding doubtful; as wel because the distemper is in a Noble part; as likewise becaule the subject part is very tender: as also in regard that an Apoplexy or a Lethargy do easily soon seize upon the party. But the cure (if there be any) is to be Performed, I. By drawing forth the Water with Hydragogues, sweats, Urine, Medicaments that insensibly discuss and dry, and by opening the part affected. II. By Reducing of the Brain unto its pristine temperament by hot Cephalick Remedies.

The Difference is taken from the Scituati- of the Humor. For one kind hereof is from a water sticking between the Skin and the Pericranium; and then the Tumor is soft, transparent by candle light, or the light of the Sun; as also it being void of pain yieldeth unto the touch, and immediatly ariseth up again: being pressed together it exhibites a motion of a fluctuating water. It yeeldeth more easily unto the Medicaments that are prescribed, and may be wholly taken away by the alone opening and cutting thereof. There is another Species or kind hereof proceeding from a water (as aforesaid) consisting and residing between the

Pericranium and the Cranium or Skul. Then a pain affecteth the party; and in this case a two-fold Section or cutting part affected is to be administred. Another kind hereof there is from a water (as above said) gathered together betwixt the Cranium or Skul, and the Membranes. Then the swelling is not so soft as usually, but the pain is far greater; and the forehead is born out forward more than usually: and likewise also the Disease is almost, if not altogether incurable.

Chap. 7. *Of the Contusion, or Bruising of the Head.*

A Contusion of the Head is a smiting or knocking together of the same (the external part thereof mean while for the most part, appearing sound and entire) by somthing that is weighty, hard, obtuse and blunt.

The SIGNS are manifested by those things that went before; the blood is poured forth out of the Veins; and there is an excited soft Tumor or swelling, black and blewish, and yet without any great, or much pain.

The CAUSE is expressed in the definition. The Skin being for the greatest part whol and unhurt, there are notwithstanding smal Veins opened under the same.

The CURE is in such manner to be instituted, thar, I. The great afflux or flowing to of the Humors may be prohibited; and that by blood-letting, if the Contusion be greater than ordinary; as also by laying to and applying repellers and astringents; which are often to be removed and changed, lest that they become overhot. The hair of the Head being close shaved off, the place is then to be anointed with the Oyl of Roses, about the time of the pains mitigation. II. Let the Blood that is poured forth under the skin be Evacuated, by the insensible Application of a betony plaster, the Cerot or tearcloth of Vigo, that of simple or red Lead, or de minio, de Matris ilva, de quatia dei, &c. III. The Suppuration, (if it may not be impeded) is to be helped on, & furthered by Triapharmacum, which is compounded of one part of sweet Oyl, two parts of common water, wheaten Meal as much as wil suffice; unto al which the Yolk of an Egg is to be added. IV. The matter being converted into Pus or matter (a Section being made in a sloping place) is to be extracted & drawn forth.

It is divided in a Threefold manner.

I. One

I. One is *with a wound of the skin*; of which we shal speak further in the following Chapter. Another is *without any such wound*; of which we now speak in this place.

II. Another is, in which the *Muscles of the Temple* are bruised together. Then dotting, a *Palsie*, *Convulsion fits*, and death follow thereupon. A *Section* or opening ought to be instituted in some neer place, that so the *Muscles moving the Head* may escape unhurt. Another difference there is, in which the aforesaid *Muscles are not Confused* or bruised together.

III. There is one *Species* or kind thereof in men grown, and of perfect Age; of which those things that have been before spoken are to be taken and understood. Another there is of *Children* and such as are young and tender; in which, 1. (The Head being shaven or at least Polled with a pair of Sizers) a Linnen cloth thoroughly wetted in the white of an Egg, Vinegar and Rose water, is to be impoted and laid on; and then binding it about for the space of one whol natural day, the outward linnen cloth is to be moistened as abovesaid. 2. The day following the Cataplasme called *Benedictum* is to be applied, and so to be continued on until the ninth day. 3. After the eleventh day, the Emplaster *Diapalma Galeni*, which is likewise to be shifted and changed the third day. 4. After the twentyeth day, the Emplaster called *Barbarum*. 5. If it proceed from Child bearing, the Emplaster *Diaphenicinum* made of Roses, &c. doth excellently discuss.

Chap. 8. Of the Wounds of the Head.

Article, I. Of the Wound of the Skin, and the Pericranium.

THE Wounds of the Head are in a threefold difference. For either they reach unto the *Skin alone*, and the *Pericranium*, the *Cranium* or *Skul* Remayning untouched: or else they reach the *Skul*, without touching the *Membranes*; or else lastly, they attain unto, and reach even the very *Membranes* themselves.

The Wound of the *Skin* (the *Cranium* mean while remayning unhurt,) is, to wit, when the *Skin alone*, the fleshy part, the *Muscles*, or even also the *Pericranium* is wounded.

As for what concerneth the *SIGNS*; the wound is either apparent unto the very view and sight; or at least it may easily be discovered with the *Chirurgeons instrument* termed the probe.

The *CAUSE*, in regard that it is evident and manifest, there is no need that we should speak any thing more thereof.

The *CURE* is various, according to the variety of the differences of the distemper.

It is divided into a wound *with a Contusion*, and *without a Contusion*.

In a *Wound with a Contusion* or bruising together, 1. It is to be moistened and mollified in such a manner, that the natural heat of the part, debilitated and weakened by the contusion, the external Air, by medicaments, may be together cherished. 2. In the very beginning we must act and operate with *Ripe Oyl of Roses*, mingled wel together with the *Yolk of an Egg* in bodies soft and fluid, but in bodies hard to be wrought upon, with the *Rosin of the Larix or Larch tree*. 3. *Turpentine* is very excellent and sovereign for all wounds, especially of the *Nervous* or *sinewy parts*. 4. About the seventh day the *Pus* or filthy purulent matter doth more apparently shew it self. 5. If it be from the biting of a wilde beast, then the *Lips of the wound* ought to be scarified, and the rotten nasty corruption must be drawn away by *blood-suckers* or *leeches*; and then the ulcer is to be thoroughly washed with appropriate Medicaments.

In a *wound without contusion*, 1. the internal cause, viz. The hot and painful *dyscrasy* of the part is to be removed, by anointing the same with unguent of *Allabaster*, *roses*, &c. 2. If the gaping lips of the wound cannot be close joyned together with binding only, then the future whether bloody or dry, must be brought unto the touch; but some kinde of digestive medicament is to be imposed upon the wound: neither is this (notwithstanding, very easily done, and that by reason of the *pericranium*, which within adheres closely unto the *Cranium* or *skul*, and by the futures is knit and joyned together with the internal membranes. 3. The *skul* being made bare and naked by shaving (which is done, that so a fit matter for the generating of flesh may be supplied, neither yet is without much difficulty to be effected) there are no unguents or oynments to be laid on, but medicaments both actually and virtually dry together with drying liniments, (and of a bone-like temperament) are to be applied.

applied. But see more of this in the practical Physicians.

Article. II. Of the wound or fracture of the Cranium or skel.

The wound or fracture of the skull, is a continual solution in the same, caused by some external violence and force, and yet such as reacheth not, neither attaineth unto the membranes of the brain.

The SIGNS are taken as well from the concurrence of the symptoms that follow it, (as for instance, a vomiting of Cholera, a flux of blood by the nostrils and ears, a fall, a noise of a broken bone, &c.) as from the nature and condition of the blow, where regard is to be had unto the striker, or that which giveth the blow, unto the condition of the head receiving the blow or stroke, and the disposition of the instrument: as also it is discovered by the chyrurgions probe (which ought to be neither too sharp, nor over thick) by ink; and by shaving thereof, &c.

The CAUSES are evident, dissolving and loosening continuity in the Cranium or skel.

The CURE is not to be hoped for, (for Cure there is none) if after the seventh day a caver come to appear; because it is a certain signe and token of putrefaction and rottenness in the brain; or if the wound become withered, dry, purulent, and black.

The cure is very doubtful, if instantly the patients strength and spirits fail him; (especially if the Party be old, because then his heat is by much weaker, and the blood serous or wheyish) if the head be prone and subject unto distillations, and the tumors called *Erysipelas*; if the symptoms, that soon began to appear and shew themselves, on the fourth or seventh day, stil continue and rather increase than otherwise. The Cure is a work of great pains and difficulty, if it be to be attempted in the summer time in regard of a fear we are to have of an inflammation imminent and very nigh at hand; if it be in a moist Climate or country, because the brain is very easily offended by cold and moist things; if it happen at the full of the moon, by reason of the abundance of humors more at that time than other; if the wound be very nigh unto the brain; if it be in the fore part of the head, and the middle of the brain, because that the brain being a neer neighbor hereunto is more arcuated or arched, and there is not fit passage left for the efflux of

the filth and corruption; if it chance to be in the Temples, because the muscles of the temples do abound with arteries, veins, and sinues, or nerves, and so by this means the motion of the lower Jaw is much prejudiced and hurt, if it be in the futures, both because that there the skel is weak, and because likewise that there the *dura mater* is knit unto the fibres; and lastly, if it happen with a contusion, in regard that the sayd contusion causeth very many, and those likewise hidden mischeifs and Evils. Touching the ordinance and institution of the cure, (if at least, there be any hope thereof) these things are to be observed, I. That the patient is to be evacuated or emptied; because that in Plethorick and full bodies even those wounds that are in themselves but slight and very inconsiderable do yet by reason of the abundant humidity attract and draw together many dangerous symptoms; insomuch that unto the milder and gentler sort of medicaments stronger may and ought to be added, and chiefly such as purge cholera and the thin wheyish part of the blood; we ought likewise to institute and appoint venesection or opening of a veine; and clysters are also to be applied. II. Those things that alter cholera, and the serous humors, and do withal hinder the motion of hot humors unto the head, are chiefly and mainly profitable in this case. III. If the skin be wounded, and yet the orifice not wide enough, it is then to be more and wider opened, until that the whole fissure or cleft appear manifestly unto the view of him that searcheth it. But then indeed a Section or opening of the *Pericranium* ought to be attempted, when there is any suspicion that the Skel is hurt. That kind of Section that is (in regard of its transverse lines) made like unto the figure and fashion of a Cross, is the most fit and proper in this case. IV. The Muscles of the Temples, (by reason of their Nervosity or Sinenewiness) ought very carefully to be avoyded in the aforesaid Section; and so likewise are the futures, by reason of the transverse passage of the Fibres. V. In the wound of the Forehead, we must take heed that the Section be not made transverse: for if the Muscle that lifteth up the Eye-lid should by this means be cut, the Eye-Lid then Unavoydably falleth down. And therefore the Section ought to be made from some inferior part, and so upwards, &c.

The Differences of the Fracture of the Brain are five in number.

L

I. A

cularly that which we call *Erugin*, the drinking of milk, the nuts of Palm trees, and the acorns of the Oak tree, the seed of the willow, and the black olive tree, and lastly, any stinking and offensive smells, &c. or whether it be *Internal* and inward; touching which consult and weigh well the various differences.

There is here *Good hope* of a cure, if there appear on the fourth day good and promising Signs: if *pus*, to wit, snott or filth, or water flow forth by the nostrils, ears or eyes. But is somewhat *doubtful*, if there be present with it an acute feaver, and that the urine be white, because then the choler is carried upwards, and an inflammation is greatly to be feared; if the Patient vomit up that which is *Eruginous*, or in color like unto brass; and that the Party be over long kept awake, and deprived of his rest (especially if a deafness accompany it) in regard that by reason of the choler that is gotten together, they suddenly fall into a violent and vehement madness; if they be surpris'd with a Congelation or taking (as we call it) together with a stoppage of the belly a fierce and wild countenance, and that the face be extraordinarily red and fiery because then they are suddenly surpris'd with a crick in the neck (that affect which we usually terme *opisthotonos*) if likewise there happen together with it a sound or ringing in the ears without a Feaver, if there accompany it a *vertigo* or giddiness in the head, a hoarseness of the voice, and a benumbedness in the hands; for then they suddenly become either appoplectical, or Epileptical, an Apoplexy, and Epilepsie or falling sickness most commonly following thereupon. But there is no hope at all (or if any very little) if where as it was very vehement, it suddenly vannah away and conceal it selfe, there following no alleviation by the *crisis*; if the extrem parts become exceeding cold, because that the native heat being drawn back, a Phlegmon may easily be excited; if it happen to be with an acute feaver and that on the fourth day there appear some pernicious sign or other; if a sound person so soon as he is surpris'd and taken herewith, become instantly speechless, and snort, and yet is not afflicted with any strong feaver, wherby probably he might be freed from the aforesaid distemper. The Cure (if there be any) is performed. I. By *mettigation of the pain*, either by anodines (o'river *craw-fish* beaten well together with rose vinegar, *vervain* water, and the root thereof well bruised and imposed on the part affected, the *Allabastrine* unguent

before mentioned; al weh ought to be applied unto the sutures and temples: or else by *narcotick* remedies, which may only be applied unto the forehead, and layd thereon. II. It is to be accomplished by *removal of the Causes*, and *strengthening the part*, touching which see further in the differences.

The *Differences* of the *Cephalalgy* are many, and those very various.

I. One difference hereof is symptomatical, of which we here treat. Another is *Critical*, which beginneth not to afflict the patient from the first rise of the distemper, but much about the time of the *Crisis*: and then the breathing suddenly becometh short and very difficult, the *Hypocondria* being drawn back; the veins are twoln, and the arteries beat in the Tempels; the cheeks wax red, and tears flow forth of their accord, the patient not being able to withstand it; the sick party stretcheth his nostrils with his hands, and then most commonly there floweth a streaming forth of the blood.

II. Another is *External*, which seizeth the *pericranium*, is perceived in the very superficies, reacheth unto the roots of the eyelids, is exasperated by the compression of the hairs and hands. Another *internal*, which becomes easy and moderate upon the very touch, especially if it be without any distention; and it extendeth it self even unto the roots of the eyes.

III. Another is from *Causes External*, to wit, 1. *Ebriety* with beer in which the herb *Chamaepence* is boiled, easily and soon cauleth. And then the matter fluctuating in the stomach is to be cast forth thence by vomit. The leaves either of the *Colewort* or *Cabbage*, throughly moistened in warme water, or else the leaves of *Rue* well brused together with rose vinegar, are to be applied. The head is to be all over wet and besprinkled with the spirit of wine, and the feet are chafed and rubbed with salt and vinegar. 2. By a *Contusion*, stroke, wound; in which case the cure is to be sought for above in and from their proper places. 3. By the heat of the sun, the heat of a Bath, and of the southerly winds: And then the head is to be delt withal by cooling fomentations, &c. 4. By the use of *other things* offensive, such as are dates, walours, chestnues, Filbirds, road-stools, hempseed, the seeds of Coriander not prepared, Frankinsence, styrax and Mirh if moderatly taken, &c.

Another is from *Internal causes*, to wit, 1.

From a *distemper* without matter, which if it be *hot*, the pain is vehement, and the head becommeth hot: if it be cold the pain lasteth so much the longer, and the head is cold. In this case the little rols or cakes of *diamoscum dulce*, and a little bag of heating Cephalicks are very convenient. If it be *dry*, the pain is moderate, dul, and not acute, and there went before causes that were extremely efficaciating and drying. 2. From a *distemper with matter*, which is either from *blood*; and then the paine is more gentle and moderate, which chiefly seizeth the fore part of the head, and increaseth before the time of repast. The *Cure* is to be sought in its due and proper places. Or else it hath its original from *yellow cholera*, and then the pain is extremely pricking and corroding, and for the most part fasteneth upon, and seizeth the right side of the fore part of the head. In the *cure*, those things that are most fit and likely to effect it, are Epichems of *Opiat Laudanum*, with rose water, vesicatories applied unto the neck, the smelling of rose water with Camphire, washing of the head with a *decoction of agarick*, together with the flowers of camomil, scarification of the lips, of the ears, &c. or else it procedeth from flegm; and then a pain afflicteth the patient on the right side of the hinder part of the head, rather then else where. Medicaments good and successeful against this malady, are, *oxymel* with *squills*, the water of the flowers of the *elder tree*, of *penyroyal*, of *rosinay*, with cristall of nitre; the shels of *peaches* beaten together with verveyn water; the oyl of *nutmeg* pressed or drawn forth, the *Balsam* against the *Apoplexy*, that of *yellow amber*, and the sacculus or little bag of *Hartmannus*. Or else it ariseth from blak cholera or *melancholly*; and then the watchings are very extream greivous, together with a pain of the left side of the hinder part of the head. Let the cure be sought for in its proper place. 3. from a *wind*, and then the pain wandereth (as it were) and flyeth up and downe, hither and thither, it puffeth out and extendeth the part where it is, often returning and running back again at some certain constant hours of the day. It is *discussed* & scattered, if so be that the temples and the coronal future be frequently anoynted and chafed with garlick throughly bruised, and then mixt together with wine vinegar, or the Urin of an Infant.

III. there is Another *Cephalalgia*, that is, such in its own *essence*, (we term it primary) which now and then ariseth likewise from *worms*, with a certain kind of gnawing, and an

itching of the nostrills; and this comprehendeth under it al the fore-mentioned differences. Another theris by the *consent* of the Heart, (as in feavers) of the hypochondria, the stomach, the wombe, &c. and this for the most part is *bemicrania*, and afflicting only the one half of the head; see the first Title of the second Chap. of this Book.

III. Another *Cephalalgia* there is peculiarly and specifically, so called which indeed is nothing else than a pain that as it is *new*, so it is also very *light* and gentle, and such as is most easily removed, without any great imbecillity and weakness; having its original (most usually) from causes external, likewise it is accompanied with a Fever.

V. Another is that we terme *Cephalaea*, or, a long continued contumacious pain, Infesting and annoying with the greatest paroxysmes (and yet notwithstanding, such as are stirred up even by the smallest and most inconsiderable causes) the whole brain, and head, or at least, to be sure, the greatest part thereof, but most especially the Membrains. Another called *Hemicrania*, which is a painful distemper of one half part of the head only, which ariseth from those parts that are situated beneath it. In that that procedeth from the stomach, there is usually prescribed (as most profitable) for evacuation the *Pils* of *Fernelius*, formed of the best Aloes half an ounce, the powder of the Electuary of precious stones, or *de Gemmis*, of the three saunders (called in the shoppis *Diatrion santalon*) and red Roses, of each of these six Grains; and so made up (to the number of thirty) with the Syrup of Wormwood and violets; and then two or three of them are to be swallowed down the tenth hour before supper. Unto the Head there may be applied and laid on an Epithem of the green Root of the *Wild Cucumber*, boyled together with Vervein and Wormwood of *Pontus*, in Oyl and water.

Chap. 2. Touching the Symptoms of the Common sense.

Article, I. Of over great and extraordinary watchings.

THose Symptoms that infest and invade the common sense, are watchings, and a drowsie and sleepy distemper, called *Coua*.

Watchings preternatural are, the exercise & wearying of the common sense, and the external

nal (likewise) beyond a due and fit measure; arising from the continual uninterrupted influx of the spirits into the Organs.

There is no need at all of SIGNS, For the relation of the sick wil suffice.

The CAUSE is expressed in the definition. But the Spirits flow in, because they can by no means be brought to rest and sleep; and that either in regard of externals, to wit, objects (overmuch light, cares, Cogitations or thoughtfulness) or else by reason of somewhat internal, to wit, a hot distemper of the brain, a pain, &c. the cure is difficult, if the said watchings happen unto those that are young, and not at all accustomed thereunto; if they bring on the party a doting, or a Convulsion, or a cough; if they last long; if they have their Original from internal causes. The Cure consists, I. In Removing of the Causes that occasion and produce those watchings. II. In Procuring sleep, either by cooling Cephalicks outwardly applied, or inwardly given, or else by Narcotics. The Fat of the Fish Lucins (that is, the Pike) annoynted upon the Temples, the Hypnotick Wine of Mynsiebtius, the Soporiferous Compound of Saxony, the Liquor of the smal spongy sprigs of Eglantine, pressed out of them after they are come to a maturity, Opium corrected with Saffron, the magistery of Corals, and the spirit of Vitriol, a pulvise of Poppy seeds with the Oyl of Hen-bane, and the breast milk of a woman, applied to the pulses, and the Pediluvium (or Lotion to wash the Feet) of Hartmannus; &c. all these are excellent for the purpose aforesaid.

The Difference is taken from the Causes.

Some of them are from External Causes, to wit, 1. The passions and affections of the minde, Fear, Grief, Cares, Custome; (and then these things are to be removed) and because they are wont to occasion the distemper of the head, we ought to withstand and prevent the increase and growth of the Humors. 2. They proceed from the objects of the external senses, which are to be rejected. The annoynting of the Nostrils with Oyl of Nenuphar or the water Lily, and the eating of Lettice, is here in this case much commended.

Others there are from Internal causes, to wit, 1. From a hot and dry distemper, either without a Feaver, which disturbs and drives to and fro the spirits, and dissipates the vapors; (The cure of this may be sought out in its own proper place:) 2. From hot Vapors, that are sharp & salt, which disturb and trouble the

spirits by their pricking and twinging the Membranes of the brain. These, either they are elevated by some Apostem of the Head, and that either from the whol Head, or from some certain parts thereof; and this likewise either without a Feaver, or with a Feaver. The Signs and the Cure ought to be sought for out of their own Chapters: Those Medicaments that qualifie, sweetly allay and temper the Vapors, are to be exhibited after supper. 3. From the defect of Vapors that might cause rest and quiet unto the spirits; in regard either that they are not all generated, (as it happeneth after an overlong abstinence from food, and by reason of crudities in the stomach, and then in this case, in the Cure, a special regard is to be had unto the Diet) or else it is, because that these Vapors, so soon as they are generated, they are forthwith dissipated and scattered; like as it chanceth in an hot distemper: and then a regard also is to be had unto the same. 4. From Pain, in which when once the common sense is together affected, it being vehemently and violently moved, all the other senses moved and disturbed together with it. And hitherto apperteyneth a Cough, the flux and extraordinary looseness of the Belly, &c. which deprive a Man of his sleep.

Article, II. Of the sleepy and drowsie Coma, or Cataphora.

The somnolent or sleepy Coma is a deep and profound kind of drowsiness, arising from hence, to wit, that the Sensus Communis, or Common sense, is become so dull, sluggish, and stupid, that it permits not the Animal spirits to be diffused into the external senses, neither doth it know, or is able to Judge of those objects that it receiveth from them.

The SIGNS are taken from this, to wit, that the sick party sleeperh for the most part with his lower Jaw-bone hanging down, and with his Mouth gaping and wide open; when he is rouzed and stirrd up he openeth his Eyes, and answereth, but immediatly again falleth a sleep. And so it is distinguished from the sad distemper Carus, from the the Apoplexy, and the suffocation of the Womb.

The CAUSE is, whatsoever impedes or hinders and prohibites the influx of the Animal spirits unto the Organs of the senses, and withal Renders those spirits more unapt unto the Animal actions and operations.

The CURE is Doubtful, if it follow upon

upon the extreame imbecillity of the Patients strength, occasioned either from some most acute Disease, or else from some deplorable and grievous affect of the brain; if it chance in continual Feavers; if it hath its original from some malignant cause. There is almost no Cure to be expected, if it take its rise from hot and dry Diseases; for then by this means of necessity there must needs be an extraordinary cooling in the brain; if the malady grow to be so sad and grievous, that both the sense, motion, and the very breathing it self is taken away. In what things the Cure chiefly consisteth, and by what means it is to be wrought, see further in the various differences thereof.

It is divided according to the variety and difference of the Causes.

I. There is one Species thereof, that ariseth from the Humidity, or the frigidity of the Brain, And then the matter in the Head ought to be Evacuated and dissolved, in the former of them, by the irrigation or the frequent washing of the Head with the sharpest sort of Vinegar thoroughly mixed together with Roses and Camomil Flowers; but in the latter of them, by anoynting the Head with Dil Oyl a little warmed. And in both of them we must remember to put in practise the frequent use of Apoplegmatisines, Errhines, and sternutatories. Another kind thereof there is from Narcotick Vapors, inducing and bringing in a certain dulness (and unaptness for any thing) upon the Animal spirits; which said Vapors either are from over much drink; (and then, the drink yet remayning in the stomach, Vomiting is to be excited and provoked) Or, for the greatest part they are conjoynd with Feavers. Then, 1. The Vapors are to be drawn back, either by opening a Vein in the Thighs, or by Clysters, frictions, Cupping-Glasses, &c. 2. The same Vapors are likewise to be repelled and driven back by Oxyrrhodines (to wit, Medicaments consisting of Vinegar and Roses) actually hot, and applyed to the Coronall suture; unto which former remedy let the Vinegar that is added, be in a plentiful measure; or else, which is yet better, they are to be dissolved with Rue, Castoreum, Vinegar, &c. 3. Great caution must be had lest that those Remedies that are exhibited and administered to expel sleep and drowsiness, should any way augment the Fever. Or otherwise, these Vapors afflict without those feavers. And then they are elevated and drawn up from the stomach, Womb; or some other inferior part.

These are to be taken away by the very same remedies as the former were. Those things, that infringe & weaken the strength of Narcoticks, are, *Rew with Vinegar*, the ballam of *Rice*, *Castoreum*, *Nighshade*, stuffing up the fume of *Brimstone*, &c. As for the Dier, what it should be, see and consult the Practitioners.

Chap. 3. Of the Symptomes of the Imagination.

A Single Article, of the Vertigo, or turning round of the Head.

THAT Symptome of the Imagination which likewise very often hurts even the common sense also, is called *Vertigo*, which is nothing else, than a false imagination of ones turning round & dizzy reeling about; arising from an inordinat and circular motion of the Animal spirit in the Forepart of the brain.

The SUBJECT hereof is, the brain, according to its anterior, or forepart, as it is an organical part, as it containeth the Animal spirits, and as it is endued with certain passages in which the said spirits are moved.

Of SIGNS there is no need at all. Unlesse some of them all things seem to be turned about as in a Ring or Circle; others of them have their very sight obscured; and again in some of them there is sensibly perceived a hissing Noise, and as it were a kind of singing in the Ears, &c.

The CAUSE is whatever either suppeditateth and generate h Vapors of themselves, and in their own Nature, such as are garden Radishes, Garlick, Mustard, Wine, &c. Or else, such as is wont to stir, disturb, and agitate the Humors; and hitherto appertaineth purgation, as being chiefly requisite in this case.

The CURE is very doubtful, and scarcely to be hoped, if this distemper happen to Old people, because they have but a weak brain; if it continue long, because it is then the fore-runner, and indeed the foreteller likewise of the Epilepsie, or the Apoplexy, if in it the Head or the whol body seem to wheel and turn round. The Cure is Performed, 1. By Discussion, and then let the holes of the Nostrils be anoynted with the Oyl of *Marjoram*, and the Oyl of *Nutmeg*; or else together with the afore said, let Rose water and Vinegar be put and applied thereunto: let the Temples, and

and the hand-wrists be anoynted with rose vinegar, and Rose water, mingled with a drop or two of the Oyl of Cinnamon; or else let them be thoroughly wet and beimeared with the Juyce of the black beet: let the pallate be annoynted with Treacle. II. By opening a Vein, if it be over powerful and violent. III. by *Revelision*, if it proceed from the inferior parts. IV. by a Diet, in the which meats that are known to generate many Vapors, beer brewed with much Hopps, and such like hurtful things, are carefully to be avoyded. For a preservative, Caraway seed macerated in Wine, dried, and dayly taken about the time of going to bed, is held to be very excellent.

The Differences are taken from the Causes.

I. One is from Causes that are Evident, exagitating and exasperating the spirits; and such are a turning round of the whol body a long while together, looking much and steadily upon things while they are moved circularly, and a prospect or looking downward to the earth from a place of an extraordinary heighth. For so by this means the spirits (by the beholding and looking upon any thing unto which it is not accustomed, or that is dreadful and terrible) are diffused and drawn back. It is known by the relation of the sick party. It is cured by rest and sleep. If it yet be not altogether ceased, then we are to conclude the Cure by frictions. If it be from Hunger and fasting, a piece of bread dip't in the Juyce of Pomegranates, or in sharp lowr wine, is first of all to be administered.

II. Another is from the narrowness or Streightness of the Passage of the Brain, through which indeed the Animal spirits are moved; but when they are thus impeded and hindered, they then retreat back again. It ariseth either from a partial obstruction, which if it be caused by gross and thick Vapors, it is soon dissolved; if it hath its rise from serous and Phlegmatick Humors; it is then of a long continuance, and there is wical present a sence of fluctuation. In the Cure there ought to be a respect had unto the Nature of the Cause. Or else it proceedeth from the compression of the brain, and the fracture of the skul; of which see further in their own propper places: Or else, it is from the Coalescence or knitting together of the Arteries, from their first rule, and their entering into the scalp or Skul, by that general and common passage through the brain, touching which

there is hardly any thing to be certainly determined, while the Patient liveth.

III. Another is from a Vapor full of windiness, generated and bred in the brain, which by an inordinate motion being poured forth into the Veins and Arteries, doth so trouble and disturb the Animal spirits by driving to and fro, that they thus become to be circularly moved and turned round, and then they exhibit and represent unto the common sence or Phantasie this fall and feigned species and appearance of things, otherwise than indeed they really are. It is known by that vehement pain, and dul heaviness of the head, a long continued ringing and hissing Noise in the Ears, and a certain kind of hurt and detriment of the external senses. This Evil or Malady is very frequent, and such as surpriseth a man upon a very small and light occasion; and yet it lasteth, and (as we use to say) sticketh long by him. It ariseth from causes that generate and breed winds and windiness, and more especially if the wonted Evacuation be suppressed. It is Cured, either in the Paroxysm, (of which we have before spoken) or, out of the Paroxysm; 1. By the Evacuation of the Matter that fomenteth and supplieth these Vapors; and that as wel a general as a particular one. Some there are that are a fraid to prescribe, and there are others again as fearful to take thole Medicaments that Practitioners term *Errhines*, which are to be taken up into the Head by the Nostrils, to open and purge the brain. 2. by *Revelision* or drawing back of the said matter, as also by *Derivation*, and *Discussion* of the same, by Vesicatories, Causteries, frictions and lotions of the Head. 3. By *Corroborating* and strengthening the Brain, both by external and internal Remedies. Among the specificall and Appropriate Medicaments, those that deserve the greatest commendation, are, the dung of the Peacock (one dram thereof by weight) macerated in Wine, strained, and so drunk up; the extract of *Scorzonera*, the Roots of *Doronicum* (an excellent drug brought out of *Mauritania*) eaten, *Bears Ear*, the fat of *Does*, and land *Snakes*, by annoynting the Temples therewithal; the powder of *Silk-worms* dried and strowed upon the Crown of the Head. Very effectual likewise for this purpose, are, the spirits of *Rosemary*, the Chymical Oyl of *Yellow Amber*, *Hippocrates* his *Treacle*, the powder of the *Right mineral Cinnabar*, half an ounce thereof: *Margarites* prepared, and *red Corals* prepared, of each two scruples; *Saffron* one scruple; and then add to the aforesaid ingredients

ingredients the *leaves of Gold*, in number ten, and so let it be administred (the dose is one scruple) in the water of lillies of the Valley; and lastly, the electuary of Saxony. It is divided into that which is from extream hot blood; and then there is present a redness of the Face, and a beating of the Arteries. In the *Cure*, especial regard is to be had unto the opening of a Vein, and that chiefly and primarily, of the Basilike, if a Plethory accompany the distemper; and then presently after, of the Cephalick or head vein, if the peccant matter abound most, or only in the head. It is not to be drawn forth all at once, but by many Effaies, at several times, by intervals. We ought not to be over rash in attempting the cutting or opening of an Artery: and into that, that is from a pituitous or Flegmy Humor. Then, the place where we have treated of the Flegmatick distemper is to be consulted. An Evacuation (after that a Clyster hath first of all been administred) may very conveniently and successfully be expedited by the extract of the Pills called *Cochie*, from half a scruple to a scruple; by a *Lixivium*, and a Balsam: See further hereof in *Agricola*, in his first Book, 38. Chap.

IV. Another there is from an extream windy Vapor, elevated from other parts. It is known by this, that there went before it no hurt or annoyance of the senses, and that the distemper afflicteth the party frequently, and by fits; and withal there are present the signs of the part affected. It ariseth either from the stomach, either pirrocholick or full of bitter choler, or Pituitous and Flegmatick, or else by reason of its imbecillity corrupting all the food that comes within it: and then the *Cure* must chiefly respect, and be directed unto the stomach. And here take place (as most requisite and proper) a grain or two of *Frankincense* taken after meals, the confection of *Fennel*, of *Coriander*, Sugar of *Prunella*, *Saccharum Rosatum* or Sugar of *Roses*, the electuary of the Conserve of old red *Roses*, *Diacydonium simplex*, that is an electuary of the conserve of *Quinces*, the spirit of vitriol, and the Syrup of mints. For what remaineth to be done in this *Cure*, see more in the diseases of the stomach. Or else it ariseth from the *Liver*, *Spleen*, *Womb*, *whol Body*, as it usually happeneth in Feavers: and then in this case there ought to be an especial Care and regard had unto the Nature and condition of the parts affected, and the Various Symptoms.

Chap. 4. Of the Symptoms of the Imagination and the Ratiocination, when they are hurt.

THE symptoms hurting the imagination and the Ratiocination or rational faculty, are, the hurt of the Memory, dotage, a Phrensie, Melancholy, madnes, and Raging or raving, which we term *Hydrophobia*.

Article, I. Of the hurt of the Memory.

The hurting of the Memory, is a diminution or utter abolition of the same, arising from Causes that hurt the dryness of the Brain conjoined with a moderate heat, (and very necessary as to the memory) and so by means rendering the Animal spirits, either torpid, that is over dul and sluggish; or else (which is as bad) inordinately moveable.

There is no need of SIGNS; for the very actions of the sick party discover the Symptoms.

THE CAUSES that hurt the temperament of the brain (that is absolutely necessary for the preservation of the memory) either they weaken and diminish the Native heat, and that likewise either Externally, as do all things of a Poisonous Nature; all Narcoticks applied to the fore part, and likewise the hinder part of the Neck: or else Internally, as doth a temperament cold, and moist, which either afflicteth Children and ancient people, by reason of their Age; or else it afflicteth others, by reason of meat and drink that is of a cold and moist Nature, or by reason of a Gross and thick Air, sicknesses, and other Causes, (of which we have already sufficiently spoken in the cold distemper) Or otherwise, they dissolve the laid Natural heat; such as are, externally, all Philtra or amorous potions, watchings, excessive thoughtfulness, Medicaments, that are hot of quality; Internally, hot Diseases, impostums of the Brain, abundance of Yellow Cholera, &c. Or else they exalt the same, such as are hot and dry temperaments, that cause an inordinate motion of the Animal spirits. Or else lastly, They impede and binder the motion of the Animal spirits; and such are, a leis (than is requisite) conformity of the head and brain, the over great thickness of the same, &c.

THE CURE respects the several Causes, and may be taken and understood, by what hath

hath been already above spoken. Those medicaments that are appropriated, either for the conservation or restoration of the memory, are reputed and accounted to be that they term *Tinctura liliæ*, taken in the water of lilies of the valley; The powder of *Trisbemius*, (of which there is sufficiently spoken in the miracles of *Mullerus*) the *Anacardine Confection*, in weight half a dram thereof exhibited and taken with all possible cautions unless haply an hot and dry temperament hinder it. Those things that resist, and therefore are good against a cold and moist distemper, are, that water that Practitioners call *Aqua Magnanimitatis* *Cunradi*. The lily of the valleys, balm frankincense, in weight half a scruple, taken with wine, Nutmeg, &c. Touching which consult the practitioners in Physick.

Article. II. Delirium, or dotage.

A deliry or dotage is a depravation of the Phantasie, and the ratiocination Faculty, arising from the bringing and presenting of an absurd and inconvenient Phantasme.

The SIGNES of a delirium, beginning, are garrulity or talkativeness in a person of few words, and so on the contrary; fierceness in a quiet and mild person; ribaldry and scurilous speech, the quick motion of the eyes, in regard that they are associated with the brain, Arteries, veins, and nerves; a pulse with perturbation in the *Hypochondria*. But the signs of that that is present, are speeches and actions that the patient hath been altogether unaccustomed unto, and which in themselves are indeed very absurd and incongruous.

The CAUSE hereof is an absurd Phantasme having its rise and original from a default in the Animal Spirits, (as wel those that are fixed, as those that are movable) which ought to be pure, clear and transparent, temperate, and regularly and ordinarily movable: For if they twerve from those aforesaid requisites, there is then an error and mistake communicable unto the Phantasmes (about and upon which the Reason is employed and busied, and then those Phantasms are represented unto the intellect or understanding) otherwise than they ought to be.

The CURE is different according to the variety of the differences.

It is divided into a dotage that we call primary, and that which we call sympathetic.

I. The Primary is that, when the brain is in its one proper substance and essence (that is, in it selfe) affected, and this is either with a fever, (of which more in the Chapter following) or else, without a fever, containing under it, as wel that wherein *Paraphora* and *Leron*, (that is to say, an error of the mind, or a dotage and butying of it about toys and trifles, proceeding from the imbecility of the principal faculty, by reason of an immoderate flux of blood, or else by reason of long continued watchings) as that we term downright folly, in the which the principal faculties are not only impaired, and diminished, but likewise extremely depraved, and corrupted.

II. That which is sympathetic, when the Cause is communicated from other parts: It is disposed and divided into that which is without a fever, (which comprehendeth under it temulency, or a kind of drunkenness and distemper brought upon the spirits, either by wine, or beer; or else from *bemp*, *darnel*, *benbain*, the dry sticks of that they call *Levanbe*, the rinds of *mandragora*, *opium*, and the like. Those things that preserve are the smal strings of wormwood and Rew eaten upon an empty stomach, the cabbage or colewort, and a morsel of bread eaten after a draught as aforesaid; those things that accomplish the cure, are, vomits, and the use of things Acid, and sharp &c. (and into that, that is with a fever, which often hapeneth in acute feavers, and not otherwise; And then the fever is at hand, and presently appeareth: if it shew it selfe in the very beginning, without any apparent signs of concoction, it introduceth a Phrensie, which is qualified & in great part removed by sleep: but if it happen to be with concoction and other hopeful signs and tokens, then it is Critical and decretory. It is cured. 1. By revulsion, by the opening of a vein in the feet and other such like remedies. 2. by tempering and allaying the extraordinary heat of the blood in the head, by topical or local medicaments. 3. By the application of hypnoticks, or medicaments causing sleep. 4. both by the evacuation of the matter which hath already seized the head (and this is to be done by opening either the forehead, or the tongue vein) and likewise by the discussion of the said matter, by applying unto the head pigdons dissected and cut in midit and withal the decoction of Camomile, &c. Or else it happeneth in an inflammation of the parts, and especially the diaphragme. And then the breathing is unequal; the Hypocon-

dria are violently drawn back more inwardly; there is likewise Joyned therewith a deliry or dotage, together with a Cough, and a pain of the side, The Cure ought to proceed according to the Nature and condition of the part affected.

Article, III. Of a Phrensie.

A Phrensie is a perpetual and Continual deliry or dotage, arising from the Inflammation of the Membranes of the brain, and afflicting the Patient with a continued Fever.

The SIGNS are, a perpetual doting, a continual Fever, incessant watchings, and short and frequent drawing of the breathe.

The CAUSE is an inflammation of the Membranes of the Brain; of the which we have already above treated in this very Book.

The CURE ought to be ordained according to the Disease, the Nature of the watchings, and the suppression of the Urine. In this distemper, Venesection or blood-letting is one especial, if not the only Remedy. But then a plentiful measure, or, as we say, good store of blood is sometimes to be drawn forth at the Nostrils, by putting up a Feather made into the fashion of a Star, even unto the very Root of them, and forcibly turned about therein. But touching what we are now upon, more may be seen in what hath been already delivered concerning the Inflammation of the brain. Neither must we forget, (by reason of those afore-said watchings) together with repellers, to mingle Hypnoticks, that cause rest; or else they ought to be administred severally and by themselves alone, as we see good. Three grains of Opium Laudanum cautelously administred in a convenient liquor, (least the Phrensie should by any means degenerate into that Disease we call *Veternis*, that is, the Lethargy, or drouisie distemper) are very much commended. This said mutation or change is wont to happen, either of its own accord, or else because the sick persons neglect, & cannot endure to reply unto those that speak unto them; and it is soon removed and taken away by the use of Emollient Fomentations. In this greif, there have their use, that which we term *Luna Potabilis Hartmanni*, six drops thereof; and that they call *Pharmacum Phantasticum*, of Bartoletus, (the dote whereof is from one dram to two drams) & lastly, the spirit of *Terra sigillata*, or the sealed earth brought from the Isle Lemnos.

Article, IV. Of Melancholy.

Melancholy is a dotage arising from a Melancholy phantasme, with the which whosoever is affected, and deteyned thereunder, he becomes wholly and only addicted to thoughtfulness, being as it were altogether ingulphed therein, without either fury or Fever, but yet without pensiveness and fearfulness.

The SIGNS are, a deep sadness and fearfulness without any apparent cause, and then likewise another sign is Taciturnity, and a long continued Silence, or else incongruous discourse, and talk at random, and this more especially of some one thing more than other.

The CAUSE is a Melancholy Phantasm that proceedeth from an error, vice, and distemper of the Animal spirits, the which (when as they ought to be clear, thin, subtile, and moveable) are hereby rendered and made obscure and misty, opacious, thick and dark, as also fixed and almost wholly immovable. And hence it cometh to pass, that all kind of objects are imprinted upon their several species, according to the condition and quality of the vitiated and depraved disposition of the spirits. And they acquire and gain this disposition from a default in the Brain, declining from its genuine whiteness, and generating such like spirits as these: or else they have their original from some default in the matter out of which they are made and bred, to wit, the blood and the Vital spirit: or else lastly, they got this vicious disposition from some impure and melancholy Matter, (which is mingled together with the blood and spirits) whether it be an Humor, or a vapor, or both.

The CURE is facil and Easie, if the distemper be recent, and but now beginning; for so it is cured by diet alone, together with the humectation of the whol body, and sometimes of the head in particular; as likewise if the Body receive any augmentation and growth from the afore-said food; if only the imagination be no more than hurt; and then again, if it be with some kind of laughter accompanying it. But Cure there is none, if the affect be hereditary. See above further hereof (touching the Progress to be made in attempting the Cure) in the Chapter of the Melancholly distemper of the brain; and below, in the differences. Notwithstanding, observe here. 1. That in this case an especial regard is to be had of the diet; and that sleep by al manner

manner of means be procured, lest that haply the Patient fall frantick and mad. *Vinegar* is not here to be administr'd, but only that by it the dry Vapors may be diverted and called away from the brain. A Bath of sweet water is by no means to be neglected. 2. That the sick person is to be wrought into an Imagination quite contrary. 3. That now and then for some certain time the Patient must wholly abstain from Medicaments. The Remedies that in this case are commended, are, *Confection of Alkermes*, the *Tincture* and *Extract of Laxulus*, *Elixir proprietatis*, the *bezoar stone*, *Cachunde*, an Indian Medicament; the description whereof see in *Lacutus* his Physical History, 1. Book, Page, 310.

It is divided into some certain species.

I. One is that of the *brain*, when the brain (in the Nature and quality of its substance) departeth from its natural cleanness and purity. It is known by this, that the doting is perpetual and vehement; that there are present signs of Melancholy abounding in the head; that the blood, if it be let out, is not thick, nor black. It ariseth Externally, from a strong Phantasm or imagination, from fear & other such like sad and grievous affections of the mind. It ariseth Internally, from a Melancholick Humor heaped up in the head; and this, either by reason of some acquired cold distemper of the brain; or else in regard of its Melancholly constitution, (which may soon be known from the affects) or otherwise, lastly, by reason of some cold and dry matter left behind in the brain, after some hot distempers there, the heat now abating, and the thinner part of the matter being now resolved, and gone. It is Cured, 1. By the Alteration and Preparation of the peccant matter by *Fumary*, the water or syrup of sweet smelling Apples, and Tartar of Vitriol. 2. By the Evacuation thereof with the *Extract of Hellebor* (the inferior waies and passages being first opened) by Emetics, and Sternutatories. 3. By Procuring rest and sleep in the use of Hypnoticks. 4. by Corroberating and strengthening the Head, by the Tincture of the *Chrysolite*, and other appropriate Remedies.

II. Another is that of the *whole Body*, when a Melancholy blood aboundeth throughout the whole body, and is from thence transmitted unto the brain. It is known by this, that the deliry or dotage is indeed continual; but yet so, that it is with some certain exasperations, exacerbations, and remissions; and likewise,

in that there are present signs of Melancholy abounding in the body, and that there went before the Causes thereof. It ariseth from its own proper Causes, of which we shall speak further in the Differences. It is Cured, by the frequent repetition of *Venesectio* or blood-letting. But because there are but very few spirits in Melancholly persons; it must not be of too much blood at once; it may be either in the left Arm, or in the Ankle, or else the thigh Veins (if large) may be opened by Leeches. 2. By a Preparation of the Humor, by the Syrup of *Odoriferous Apples*, *Fumary* with the cream of Tartar, & Tartar vitriolate, by the section of *Alkermes*, the *Whey of Milk*, with the Juyce of *Cichory* and *Fumary*. 3. By a gentle Evacuation thereof, often Reiterated, and corrected by such things as corroborate the spirits and the principal parts; and likewise by those things that Humectate, moisten, and mollifie; but then the Evacuation may, and ought to be stronger, if so be the blood be over thick, and unless the body be already extremely and over much wasted. This Evacuation must be seconded and followed by Moistening Baths, unto the which Emollients are to be added. 4. By drinking of tart, sharp, and somewhat sour potions, and also by the use of hot baths. 5. By the strengthening of the Head, both by internals and externals, among which Embrocations are highly, and indeed chiefly commended. 6. By a Diet, in the which there ought to be a careful and continual abstinence from all sorts of pulse. It is divided, according to the Nature and diversity of the Causes. 1. One is from Causes altogether external, as Fear, watchings, Cares, all which extirpate and dry up the Radical Moisture, have in them a power sufficient to alter and change the blood in the whole Body, and to detain the Melancholy Humor. Now then, in this case, *Venesectio* is not reputed to have any place at all. Another there is from internals, to wit, either an hereditary constitution (which indeed ought not over hastily and rashly to be tampered withal) or else, from either a cold and dry, or a hot and dry constitution and disposition of the Liver and spleen; in the which upon the cessation of the burning Cause, the heat likewise ceaseth to be, and the thicker parts, that are cold and dry, are left to remain behind. And then, either it is *with blood*; (from whence proceeds a doting with laughter) or else, *with slegm*, from whence happeneth a dul sloathfulness and oblivion;

or with *yellow cholter*, from whence proceedeth anger, &c. In the *Cure* a regard is likewise to be had unto the nature, quality and condition of the Causes.

III. Another is of the *Heart* when the vital spirits that are bred, by reason of a cold and dry distemper, are cold, dry, and of an impure nature. The *Cure* differeth nothing from the former.

IIII. Another is *Hypochondriacal*, when a melancholly humor, (that is sometimes cold and serous or wheyish, or else oftentimes that which is adust and burnt in the branches of the *Porta vein*) is gathered together in the hypochondria, and so from time to time by those black melancholly vapours that are continually sent forth, polutech and defileth the Animal Spirits in the Brain. It is known by this that it seizeth the party by intervals, and at some certain seasons; and most commonly in its access and approach it surpriseth the party suddenly and without any notice given; but sometimes again (and that likewise very frequently) it first of all couleth ructures, windy belchings, together with a pain diffending and stretcheth forth the stomach; and then by and by it introduceth great anxiety of mind, difficulty of breathing, the palpitation of the heart, the immovableness of the tongue, and at length a mist and darkness before the Eyes, a tingling and (as it were) ringing noise in the Ears, and lastly, a stupidity and benumbedness in either or both of the Arms. It ariseth from a feculent and dreggy Vapor, that being collected and gotten together in the Hypochondria from a Melancholly humor flowing from the *Antipraxy*, (as we so term it) or renitency of the Spleen, Liver, and Stomach; and then tending upwards toward the superior parts, and forcibly rushing in upon the members, it produceth and brings in the aforesaid Symptoms; and being transmitted and sent into the brain, either by the Orifice of the stomach, or else by the branches of the *Vena Cava* (or hollow vein) it there cloudeth and darkeneth the spirits. For the *Cure* hereof see more in the Hypochondriacal affection.

V. Another is (that we cal *Uterine*) from the Womb, which is easily *Discovered* by this, that the sick complain of a pain in their left side, and a manifest pulse and beating in the back parts neer about the Diaphragm. It ariseth also from a Vapor proceeding either from the suppression of the Courses, or else from some putridness in the seed. For the *Cure*, see in its proper place.

VI. Another is that we term *Erotick*, as proceeding from love, which is either contracted from *Philtres* or Love potions; (and then there must be given, 1. *Vomitories* of the Root of *Asarum*, together with *Bezoarticks*, *Aqua Benedicta Rulandi*; 2. *Sudorificks*, as for instance, Treacle water, *Diaphoreticum* in acute distempers; the Appropriate remedy is the *Secundine powder*, touching which see more in *Hartman*;) Or else from a Venereal lustful appetite, & an over great abundance of the seed; then in this case we are to deal with those things that allay and qualifie the Venereal heat, and extinguish or (at least) diminish the seed. See more of this Nature in *Ferrandus*, in his peculiar tract.

VI. Another is that we cal *Errabunda*; which most an end useth to infest the Patient in the Month of *February*. In this case the sick persons abound, & are even overspread with Ulcers in their thighs; neither can they possibly for an hour together take their rest in any one place.

Article. V. Of madness.

Madness is a continual motion of the mind, with an unwonted boldness and Fierceness (yet without a fever) arising from a fiery heat of the Spirits.

The part affected is the Brain, (the memory (for the most part) being stil preserved, and kept inire) and the Heart, which is (as it were) collected and straightened by the over vehement passions and affections, and a dayly and perpetual enduring of the winters cold, the heart too copiously diffusing the natural heat.

The *SIGNES* are, Fierceness, and so it is distinguished from melancholy; the want of a Symptomatically fever; (in regard that there is here no putrefaction) and by this it is distinguished from a Phrensie. Unto the signs aforesaid there are likewise often-times added extream and over watchings, (for want of rest) and divers other signes, that are likewise common to a deliry or dotage.

The *CAUSE* is the exceeding great and boyling heat of the Spirits; unto the which it is apparent, that of necessity there ought to be joyoned an occult, secret, and more potent cause; from the enormity and long continuance of the symptoms: But now, from whence this extraordinary heat hath its original, shal be discovered, when we come to speak of the differences.

The *CURE* is difficult, because that the affect

affect is of a long continuance, as wel by reason of the cause, (which is most pertinacious, and hath in it (as it were) the nature and quality of Leven) as also in regard of the sick persons, who wil by no means yeild obedience unto what is enjoyned. But there is *good hope* of a cure, if the courses and hemorrhoides flow forth, if the Belly be loose and solluble; if the symptoms be gentle and moderate; if there be a plentiful flux of the blood, out of the nostrils, out of the greater crooked and wreathed veins of the hips, thighs &c. (the Practitioners term them *varices*) and out of the womb; if there sweats present; and lastly, if the distemper be turned into a kind of silent decipience, or (as we say) playing the simple one. It is to be performed, 1. by an opposite diet, in which the Patient must carefully avoid the drinking of wine; but by all means sleep is to be procured, and the sick calmed and delighted with musick. 2. By the removal of their causes that induce and generate the excessive heat; of which we shal speak further in the differences. 3. by a mitigation of the symptoms, and more especially, the extreame and over long watchings.

The differences are taken from the Causes that introduce excessive heat into the spirits.

I. One is from *Causes external*, as for instance, the extraordinary heat of the dog-days, vehement and exorbitant wrathfulness, drinking of hot and strong wines, *Night-shade*, the brains of a cat and of a weasel, wine turned by lightning, Philters or love potions, the eating of dogs and wolves; the curing of fistulae; and old ulcers; all which may be sufficiently known from the relation both of the Patient, and the by-standers.

Another from *Causes internal*; of which more in the second difference.

II. Another is from *adust* or burnt blood, which is known by the signs and tokens of Plethory, rednes of the eyes, by playing or toying, singing, and excessive dancing, &c. It arises, sometimes from a hot distemper of the liver, and sometimes from the suppression of the courses and of the hemorrhoides. The Cure is to be accomplished by venesection or opening of a vein, in the mean time not neglecting those distempers and diseases by which it is caused.

Another is from *black choler* accompanied and attended with a certain accure and secret property; which is known by this in that it is perpetual if it be once lodged and hath taken up its residence in all the veins, or else at least,

in those that are next unto the principal members; if the dotage be accompanied with raging; if the strength of the sick be extreamely impayted and weakened and in a manner dissolved by long continued watchings; if there be withal present a raging and mad desire and endeavour to bite and tear, &c. It arises sometimes from an extreame hot spleen yeilding and pouring forth abundance of black choller. It is to be cured, 1. by letting blood, as wel by the opening of the left arme vein, and likewise the salvatella vein (& this letting out of the blood must be in the greater quantity, if the blood be blacker than ordinary; but then it ought to be more sparing, if it be of somewhat a reddish hew, as by the opening of the hemorrhoid, and those obtorted and wreathed veins called *Varices*, (if at least they appear) but the forehead vein, if the mallady be refractory and obstinate. 2. By preparing the peccant humor by cooling and moistening cephalicks. For this end and purpose there is much commended, the oyl of champhire, one ounce, the oyl of musk, in weight one dram, and mingled wel together, and so administrated the quantity of halfe a dram at once for a dose; the decoction of that *pimpernel* that hath a purple flower. 3. by the *eduction* or drawing forth of the said humor, by *melanagogues* (we are to understand hereby, medicaments having in them a vertue and property to draw forth black choler or melancholly) more especially the stone called *Lapis lazuli*, and *boney belleborat*; of which last *Petrus* hath written at large in his *Nosology*, or treatise of diseases. 4. By strengthening the heart and brain with the confection *Alhermes*, and *de hyacimbo*. 5. By the use of topical remedies; in the classis and number of which Cauteries applied unto the coronal suture have their due and proper place; opening of the *cranium oskul* with the trepan; a Lee made with *Laurel berries*, and roots of the true black *Hellebor*, with which while it is yet a little warme the head ought to be washed, &c. Those remedies that are specificall, are *Liquor of mans blood*, with the extract of *Lapis Lazuli*; *Saturine Crystal* administrated with the greatest caution that may be; the blood of an asse taken out of the veins behind the Ears; of which *Hartman* hath written sufficiently, &c. see Likewise hereof *Rulandus*, in his medicinal Cures.

III. Another is that, which is such essentially; unto the which all those things before mentioned

mentioned may be attributed.

IIII. Another is by *Consent*, especially of the *womb*; from whence that kind of fury that we call *urine* hath its original and denomination; of which more in its proper place.

Article. VI. Of *Rabies*, or raging Madness.

Raging madness is a deliry (or doting) produced from some certain peculiar poyson bread in any living creature, and communicated unto a man, with a strong and vehement abhorring of all things that are liquid, but more especially, water.

The *Animals* (or living Creatuers aforesaid) that communicate this poyson unto man, are, the wolfe, the cat, and the dog; and chiefly this last.

The *SIGNES* are, (in the *begining* thereof) anger soon moved and a continual inclination thereunto; a complaining of the Air, as if it were Southerly and moist; little or no desire to drink; a great desire to have candles lighted up in the day time; and lastly, a vertigo, lightness, giddiness, or swimming of the head. The signs of this distemper *confirmed*, are these; a distension of the members, but this is not continual; foaming or froathing at the mouth, frowning fierce looks, spitting and spawling upon those that are nigh, a barking like as of dogs, an abhorring of, and flying from water, by reason of a singular and peculiar antipathy and dislike; from whence this affect is termed (and that not improperly) the *Hydrophoby*.

The *CAUSE* is *poyson*, that is generated in a living creature, from some peculiar inclination it hath and then communicated unto man by breathing upon him, kissing, spitting and biting. In some it is generated (if we may beleive *Donatus*) from an extream terror; and in others, from touching the dog-tree (which they call *Cornus*) or by the touch of bloodwort, or else, the *Sorb* or service tree. But now this *deliry is produced* in some persons sooner, within twenty dayes at the utmost; but in others more slowly; yea even the twelfth year after. And this commeth to pass, either by reason of the variety of the part that is bitten; (for some of them are more noble, others againe are less noble) or else, by means of the diet that is used, which possibly may much weaken and abate the strength of the poyson; or by reason of the diversity of pa-

tients; or else, last of all, from the difference and Dissimilitude of Countreies, times, and seasons.

There may be some *good hope* of a *CURE*, if the wound or hurt reacheth not unto any nerve, vein, or Arterie; and if it be not very deep. But there is small, or *no hope*, if there be present a fear of water; and if sighing or sobbing happen thereupon. But if there be any cure, it then consisteth. I. in *preservation*, lest that the poyson penetrate into the body; and there occure and take place. 1. A *Ligature* upon the part afflicted; but if the part wil not wel endure it, then a laying upon it those things that have in them either an intercepting, or astringent quallity. 2. *Cupping-glasses*, with good store of flame, and with scarification, if the wound be little; but without, if the hurt be great, and the wound large. 3. *Enlarging* and widening the part if the wound be over narrow, that so the poyson may the better flow from the part affected. 4. *Attraction*, by Medicaments that are vehemently attractive and drawing, or else by actual Cauteries. II. The Cure consisteth in that way and *Method of Curing that is properly so called*; where those Remedies that have their place, are, 1. *Purgation* by Hellebor. 2. *Appropriate Sudorificks*, but chiefly, the *simple* or *single Mixture*. 3. The strongest sort of *Vesicatories* (we mean hereby all such Remedies as raise and caule Blisters) 4. *Antidotes*; and these are to be administred and given in a double quantity and proportion to what they are wont to be in other ordinary cases, &c.

Chap. 5. Of the Symptomes of more of the Internal Senses.

Article. I. Of the Waking Coma.

THE Symptomes that infest and annoy many of the internal Senses at once and together, and are, the *Waking Coma* (as they call it) and the *Leibargy*.

The *waking Coma is a propension to sleep, and yet withal an utter disability thereunto, arising from Narcotick (or dul sleepy) Vapors, that induce and cause a drowsie and sleepy disposition, and withal trouble and disquiet the mind.*

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The SIGNS are, a Convivence or winking with the Eyes, and yet withal a frequent opening also of the Eyes; a moping or doting kind of discourse in the Patient; and likewise an inordinate motion of the hands and thighs.

The CAUSE is conjectured to be Narcotick Vapors, unto the which there is adjoined something that brings along with it a necessity of waking; and to doth a Phrensie, a Malignant Fever, &c. It sometimes also proceedeth from an extream debility of the strength and powers of the body, contracted either from some vehement Diseases grievous and intolerable pains, and an excessive immoderate Evacuation; and then in this case it is very dangerous, if not deadly.

The CURE is very difficult, in regard that the affect is easily changed into the Lethargy or Phrensie. It is very doubtful, if the parties speech be hindered: if while they breath a murmuring noise be heard in the throat; if the sick persons cannot swallow down what he drinketh without much ado; and lastly, if a thin Humor distil from out of the Nostrils. It is Performed (if there be any Cure at all to be expected) by Revulsion, and the Evacuation of the Matter, from which it proceedeth, and hath its first rise and original, &c.

Article, II. *Of a Lethargy.*

A Lethargy is an insatiable propension to sleep, together with a gentle Fever, forgetfulness, and a dull sloathfulness or Lazineſs; arising from a Pituitous or flegmy kind of blood putrifying in the hinder nooks, windings, and Cels of the brain.

The parts affected are the Posterior or hinder ventricles and Cels of the brain; in regard that in this distemper the Memory is that which is chiefly hurt.

The SIGNS are, an insatiable desire after sleep, as being never satisfied therewith; by reason that the brain through its over moistness cannot possibly be expanded; and because likewise that the Animal spirits are as it were bound and lock'd up, by unwonted extraordinary obstructions. Another sign is, a mild and gentle Fever, in regard that the putrifying Humor is not extreamly sharp and fretting, and that the heat is allayed and qualified by its Contrary; but then this Fever is Continual, in regard that the heat (being as it were to boyl it up) is continued, and in a manner

perpetual, and ever more, from day to day, returning about the beginning of the Night. Another sign is Oblivion or forgetfulness, because that the hinder part of the brain is hurt. Another, *ſlowness of breathing*, in regard the Nerves of the Thorax, breast or Chest, are affected. Another, a Cough, by reason of the Flegm Defluxion into the Larynx, or entrance of the wide rough Artery, (we commonly call it the wind-Pipe.) Another sign is a Turbed, That is to say, a thick, puddled, and troubled Urin, in regard that the Crude Humors are agitated and driven about by the heat, and yet are not separated. Another sign is, *great Pulses*, by reason of the Fever that accompanyeth it; but then such as are not very quick and frequent, but *slow*, by reason of the imbecillity of the Natural strength and powers of the Body. It differeth from the *Catalepsie*, by the winking and shutting close of the Eyes; from *Carus*, by the Fever that is present herewith; from the *Apoplexy*, because it doth not suddenly, and all at once invade the party; neither doth it deprive of all kind of motion: It differeth from the *Hysterical Passion* (we term this affect the fits of the Mother) in that the Lethargical persons are able to speak and make answer (the others not so) and withal they are affected with a moderate and gentle Fever: and lastly it differeth from *Coma*, by that excessive and insatiable desire of sleep (of the which they have never enough) and out of which they are no sooner roused & awakened, but they immediatly fall back again thereinto.

The CAUSE is Flegm or snivel, rotting and putrifying in the hinder parts, (we usually call them the ventricles, nooks, and Cels) of the Brain. Where it is to be noted as *Observable*, 1. That sometimes the said Flegm is diffused all about the brain, and the *Meninges*, and that then it induceth a swelling or Tumor, that is not very great, nor very hard: but that sometimes likewise it is even stuffed and impacted into their very substance, and becoming altogether one with them, and causing them to rise and swell up like unto a sponge. 2. That in old Age (for the most part) a pituitous of flegmy blood is carried into the aforesaid parts; and this ill blood hath its original from Narcotick Crudities. Now the reason why it *Putrifieth*, proceedeth from the retention of those Vapors that ought to be dispersed and driven forth.

CURE there is none for it, if it be such as is rightly and properly so called; if the strength & powers

powers be day after day wasted and weakened, if there be an increase of the cold sweat of the head; and lastly, if it end in a *Sphacelus*. The Cure is *very doubtful*, if it happen unto one that is young, and in the hot Summer time; if the Urins that are made are become clear and thin; if the Excrements that are thrust forth by the belly be many, and also liquid; in regard that this proceedeth from the resolution, weakness, and wasting of Nature: if there happen withal a kind of trembling, because that this imports either great plenty of matter, or else the resolution of Nature; and lastly, if a phrensic chance to follow immediately upon it. There is *some good Hope* of a Cure, if so be the seventh day be over past and gone without any sensible hurt and prejudice unto the party; if the Animal actions be not greatly impaired; if the sick persons find themselves the better, after the expulsion of the matter unto the Nerves; if the matter when it is putrified hath an Evacuation by the Ears or Nostrils; and lastly, if there happen an impostumation behind the Ears. The Cure is to be effected. 1. By *Revulsion*, which is performed, 1. by *Venesectio*, (So this likewise must be maturely, timely, and seasonably administered) after the putting up of a Clyster; unto which said Venesection, (if there be want of strength in the Patient to undergo the loss of much blood) may be added as subservient thereunto, Ligatures, Leeches, and Cupping-glasses affixed unto the back and shoulders. 2. By *Purgation*, instituted by the milder and gentler sort of Medicaments, by reason of the Fever; to wit, *Cholagogues* in the beginning, and *Flegmagogues* in the progress. But the Remedies ought to be *stronger* and more operative, if the Fever be remiss and gentle, and the matter urgent: the said Purgation is to be corrected with *Castoreum*, which is here very proper, as being appropriate unto this distemper: but we must not by any means omit the making use of sharper and stronger Clysters, if there be present a greater and more intense Fever. 2. By *Repulsion* or driving back, which is to be administered after blood-letting, by the gentler sort of Medicaments, applied unto the Coronal Suture; not neglecting the putting in practice likewise of Revulsion. And for this purpose *Oxymel Scilliticum* (or with Squills) is especially good. 3. by *Preparing of the matter*, if the Disease wil allow but of so much time, and truce; but here the *Arabian Stoechas* is carefully to be avoyded, if the Fever be over great and intense. 4. By a

Particular Evacuation of the Brain; where we are to take notice, that *Castoreum* is ever more to be added, and mingled therewithal; and that *Sternutatories* ought not to be made use of from the very first beginning of the distemper; neither are we continually to persist in the use of them, in regard that they fill the Head: and then again we must not forget that *Vesicatories* are to be imposed behind the Ears, and likewise applied unto the Crown of the Head, or to the Coronal suture. 5. By *Corroborating and strengthening of the Head* by its appropriate Remedies. 6. By a *Diet*, in the which (at the beginning or first entrance thereinto) the food that the Patient takes, ought to be but little, and thin of quality and substance, but especially such as affordeth a good Juyce and Nutriment; and withal the sleep ought to be very sparing, &c.

It is divided in a two-fold manner.

I. One is that which is *Legitime*, and properly so called; of which we hitherto been speaking. Another is that we term *Nothus*; which is altogether without a Fever, and is (indeed) nothing else but a profound and deep sleep, and as it were of a middle Nature betwixt *Caros* and the waking Coma.

II. Another there is that is such by its own *Essence*; touching which, al before said is to be taken and understood. Another is by *consent*; there being a certain matter communicated and denived unto the Brain, by reason of the suppression of the courses, or of the Hemorrhoids; or else by means of some other Disease.

Chap. 6. Of the Symptomes of the Animal Motion.

Article, I. Of Lassitude, or Litherness.

Those Symptomes that offend and hurt the Animal Motion, are, *Lassitude*, *Unquietness* or *Restlessness*, a *Vebe ment cold* and *Stifness*, a *Trembling*, a *Palsie*, and a *Convulsion*.

A *Lassitude* is a certain unaptness and unfitness (together with a certain kind of pain) unto the exercise of the Animal motion, which ought to have been performed freely and in a natural way.

As for the signs, the relation of the sick party will sufficiently acquaint us with them.

The CURE is, whatsoever doth burthen, weary, and make Lither the Muscles that are

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the instruments of the Animal Motion; whether it be any thing External or Internal.

The CURE is accomplished by the removal of the Causes, and likewise by the cherishing and comforting of the Muscles.

It is divided into six Species or kinds.

I. One is that that is not Spontaneous or voluntary: unto which, that we term *Exsiccative*, doth appertain. Another is *Spontaneous* or voluntary; which (in regard that it signifieth and manifestly declareth that Humors superabound in the body) may therefore not untruly be said to prelude Diseases; and if it persevere and continue after the cessation of the Fever, it signifieth a certainty, or at least an extreme danger of falling back into a relapse. And unto this kind belongeth that we call *Gracility Ulcerous, tensivæ, Pblegmonodes, and Ostocopos*.

II. Another is that which we call *Exsiccative*, which proceedeth from an extreme and over great motion of the body. But in this there is no danger at all, unless it chance to befall a Cacochemical body. It is cured, I. By rest, especially that rest that is taken in sleep, because that then the members are placed in a middle kind of frame and posture, upon the Relaxation of the Muscles. II. By Exercise, if it be more moderate than the former, in regard that it discusseth and disperseth those Humors that are moved up and down throughout the Cavity of the whole body.

III. Another is that we term a Lassitude of *Gracility*, which hath accompanying it no grievous or disquieting sense of pain. It ariseth from a Consumption of the flesh and Fat of the muscles. It followeth upon either Chronical or else (it may be) after some acute Diseases. It is to be Cured by a Convenient Diet.

IV. Another is *ulcerous*; which is known by the signs and tokens of a choleric cacochemistry, by a sensible pricking and shooting throughout the whole body (from whence indeed it taketh its name and denomination) and by a kind of extreme and vehement stiffness that ensueth thereupon. It hath its Original from some sharp and biting (either) Humor or Vapor; or else from heat diffused and disperied to and fro, or else such as is wholly dissolved, wasted, and consumed by excessive and inordinate exercise. It is Cured by Purgation, if it be so that the matter fix and stick in the more profound and deep parts; but by frictions, and

motion, if the matter be only in the Superficies.

V. Another is that we call *Tensive*; which is known by a manifest and sensible extension or stretching out in the Tendons of the muscles, the Fibres, and Nerves. It ariseth from a Plethory. It is to be Cured by frictions or rubbings with sweet Oyl, and by baths of sweet Water.

VI. Another is that we call *Pblegmonodes*, which is known by a sense of Cotation and Contraction, and (as it were) an inflammation of those muscles especially which have their place and situation under the Skin. It hath its rise, either from a great abundance of blood fallen forth of the Veins unto the muscles, or else such as is attracted and drawn together by overmuch and violent exercise; and then the Cure is to be performed by Venesection or blood-letting: or otherwise it ariseth from the Humors that are in the manner and by the means aforesaid drawn and led along thither; and in this case there will be great need of Purgation.

VII. The last is that we call *Ostocopos*, which is known by the extension and stretching out of the interior Nerves adhering unto the bones of the Tendons, and encompassing and wrapping about the bones of the Membranes. It proceedeth from black choler or Melancholy seizing upon and possessing those Membranes. It usually concurrereth and sheweth it self together with the Scurvy, Quartane Feavers, and the French Disease. The Cure ought primarily and chiefly to be directed and instituted according to the Cure of the aforesaid Diseases.

Article, II. Of Restlessness, or Unquietness.

Restlessness or Unquietness is a frequent various shaking to and fro of the whole body and the several members thereof, arising from matter molesting and disquieting those parts that are capable of suffering.

There need no SIGNS; for the Affect is apparent enough to the very view.

The CAUSE is a sharp matter, whether it be a humor, or a hot Vapor.

The CURE must be directed; and so ordered that it look toward the said matter, accordingly as it appeareth in the following differences thereof.

It is divided into Critical and Symptomatical.

The *Critical* consisteth in that suddain and unexpected perturbation of the Humor; and from whence there is no danger to be feared.

That we cal *Symptomatical*, is that which happeneth in general; and it containeth under it, I. That which we term *Stomachical*, which is known by a kind of Nauseousness in the stomach, sometimes without, but most commonly with a vomiting, and likewise a pain of the stomach. It *ariseth* either from the *Humors* pulling and twinging the mouth of the stomach, &c. (as it were) soaked and drunk up into the *Cotes* or *Tunicles* thereof, (in which case purges that abate and lessen the acrimonious quality have their proper place:) or else from food unseasonably taken; and here we are to help and succour the Patient by vomiting of him. II. That that we term *Inflammatory*, which proceedeth from the Inflammation of some one of the *Bowels*. III. That which we cal *Febrilis*, that appeareth in Malignant Feavers, and is very dangerous, if it be attended with the imbecility of the natural strength and powers of the body. In the *Cure* we ought to have respect unto the several species or kinds of the Disease.

Article, III. Of Rigor, or an Extream Stiffness.

The Rigor or unnatural vehement stiffness is a vibration, shaking, and quavering of the Muscles of the whole body, conjoynd with Refrigeration, and a certain pain, arising from something that doth molest, by a suddain and unlookt for twinging and pulling of the sensible parts throughout the whole Circumference of the body; and likewise by Irritating and stirring up the expulsive faculty.

The Part affected is the whole body, or at least, the Muscles of the same, whether they suffer together more inwardly, or not.

There is no need of Signs; the Refrigeration that happeneth herein, either it is of the Skin alone, by reason of a pain excited and stirred up by the acrimony and sharpness of an humor; or else it is also of the Muscles; whether it proceed from the Diffusion of the Humor, or otherwise from the Inflammation of Bowels.

The CAUSE is something that is grievous and burthensom; whether it be collected and contained in the very Muscles themselves; or

else be transmitted thither from some other place. But now then the said matter is sharp, corroding and biting, much of it in quantity, and such as is swiftly moved and carryed up and down from place to place. And this happeneth most especially in Feavers.

The CURE is accomplished by the removal and taking away of the causes. The Disease, (if it cease not upon the use of an Evacuation) is very evil and dangerous; and so likewise if it be attended and accompanied with a Consumption, and wasting of the whole body.

It is chiefly and especially divided in a threefold manner.

I. One kind (or species) hereof is from things External; as for instance, a cold Air, or an External heat diffusing and dissipating the Excrements that before were at rest, and were quiet, without any molestation; sprinkling of cold water, upon the body; the falling of a spark of fire upon the skin, &c. The Cure here hath nothing in it worthy of Observation. Another there is that proceedeth from Causes Internal; to wit, a Choleric humor, a salt Flegm, Melancholy, black choler, and acrimonious sharp Vapor. The Cure hath respect unto the several sorts of the Disease. All the kinds of them are sometimes to be Mitigated with the Oyl of Rue, of Bay-berries, of Castor, and of the several sorts of Pepper, together with Treacle and Mitridate.

II. Another is vehement with a continual fever: and then, if it chance to be in the beginning, it betokeneth an inflammation of some bowel; but if in the end, it sheweth, either that the feaverish matter is moved out of the Veins, or that the Inflammation tendeth to a Suppuration: Another is but little, and not much considerable, being such as only giveth notice of Feavers to follow; of which see further in these Chapters wherein they are particularly treated of.

III. Another is Periodical, which afflicteth the party but now and then, and by fits at certain seasons. And this is the best and the most hopeful species of this Disease, if it happen to appear on the Critical day; if upon its appearance the body waxeth hot; or else that any Evacuation of excrements follow thereupon. Another is Symptomatical, when as the matter is thrust forth into the external parts, and the Circumference of the body, without any Crisis at all; and this is that of which we are now speaking.

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Article, IV. Of Tremor, or Trembling.

This Trembling is a depravation of the Voluntary motion, (by reason of the which the Member elevated and lift up cannot be kept in its own proper situation) arising from the debility and weakness of the faculty of motion.

There is no need of SIGNS: It Differeth from a Convulsion, because in this latter the part is contracted, and so kept; from a Palsie, because that in this the part is seldom or never lifted up, or at least very slowly; from a Palpitation, in regard that in this not the whol Member, but the flesh, and especially the Skin is moved; and the member unmoved, one while falleth down, and again another while is distended and stretched forth; and lastly, it differeth from the Rigor or stiffness aforesaid, in regard that it is without any pain.

The CAUSE is a weakness of the moving faculty, which happeneth either by a default in the Animal spirits, or the Nerves.

CURE there is none, if it befall those persons that are in yeers, by reason of the extream imbecillity and weakness of the spirits and the brain; if it happen in a vehement Phrensie, or Melancholy; for then it is caused, either by means of the exsiccation or overgreat drying of the Nerves by a Fever, or else by reason of a corrupt and depraved quality: if it be hereditary, or that it proceed from some fault and disorder in point of diet, especially in such that have the Organs of the Animal faculty extreamly weakened; if the sick person Shrink and Start when he is toucht; in acute Feavers, because that the Nerves are either exsiccated and over dried, or else are pulled and twinged by some depraved and vitiated matter, upon which there followeth a Convulsion. The Cure is more facile and easie, if it proceed from Causes that are evident. It is doubtful and difficult, if it happen on the left side, in regard that then the innate heat of that part is the more easly impaired and made to decay; if it turn into a Convulsion, because then the peccant matter assumeth unto it self and worse and more offensive quality; if it happen to be in a burning Fever, and that a doring follow thereupon; for then some great and grievous Diteale succeedeth, and the strength, and powers of the body are wasted and consumed; if the sick party Shrink and Start when he is toucht, for then the Nerves are become over moystened by the peccant Humor. But when we set

about the Cure, (and that there be any hopes of effecting it) it is then to be instituted and prosecuted according to the Nature and disposition of the severall Causes and differences, touching which we purpose to speak further in the sequel.

The Differences are all of them taken from the Causes introducing the same.

I. One is from External Causes, especially such as are Malignant and Narcotick, as (to instance) Quick Silver, Poysons, opiates, Henbane, the Retention of the Secundines or After-birth, and the suppression of the blood after delivery; all which are to be removed. Another is from Causes Internal, of which we shall speak more in the Second Difference.

II. Another is from the Scarcity and want of Spirits; which either are not generated and bred in a due and fitting sufficiency, by reason of a cold distemper of the brain, (and in this case, in the Cure thereof the Nature of the Diteale it self ought heedfully to be regarded) or else after they are generated they come to be dissipated, wasted, and consumed, by an excessive, heat an over great Evacuation, and some long continued tedious Diteales: and here we are to deal and do our endeavour by prescribing a fit and convenient Diet.

Another there is from some faults and failings in the Nerves themselves; which may be, 1. A Cold and moist Distemper of the brain; and there are some signs present of a misaffected brain. The Cure must turn towards, and Eye the Distemper. For those Remedies that are taken inwardly, these following are chiefly commended, VIZ. The Essence of Balm, and storchas of Arabia. Among the Medicaments that are to be externally administered, these are highly approved of, to wit, the Oyl of the flowers of Trifoyl or the three leaved Grass, vulpinum, or the oyl of a fox, the oyl of pepper the Oyl of castor, &c. 2. A Plethory when some wonted Evacuation is suppressed; & then in this case let a Vein be opened. 3. An Obstruction of those same Nerves, such as we term partial ones, or a stoppage of them but in part, whether it proceed from thick and gross Humors, or else from Gluttony and sur-charging the stomach, and other such like Causes. See further hereof in the subsequent Cure of the Palsie.

Article, V. Of the Palsie.

The Palsie is a spontaneous and voluntary abolition of motion in the parts, (without any the least hurt of the Reason,) arising from a defect and want of the Animal spirits, through some fault and error in the Nerves.

There is here no need of SIGNS; the motion for the most part perisheth, the sense and feeling stil remaining, there is likewise a kind of softness and tenderness in the part affected; a coldness also, a weak pulse, &c.

The CAUSE is a defect and staying of the Animal spirits, which happeneth by some fault of the Nerves.

There is no CURE at all to be expected, if it chance to be from an extream and forcible Relaxation or Loosening of the Vertebrae, in regard that then the Nerves are greatly crushed together and very much bruised, insomuch that an inflammation followeth thereupon; if it proceed from an incision or cutting of some one of the greater Nerves, or the the spinal Marrow, because there is then no Hope of a Coalition or closing together again of the incision. The Cure is likewise exceeding Difficult and hard to be effected, if it happen unto aged people, in regard that it denoteth an imbecillity of the heat; if the member be extenuated, and the natural vegetative heat thereof be changed and altered; especially if the eye on that side be impaired, because it argueth then that the heat is well nigh extinguished, if there be many of the nerves and muscles affected; if it succeed and follow upon an Appoplexy, in regard that then the cause is over vehement. But the Cure is more easie, if the resolution be in the thighs or feet, because that in those parts the nature and constitution of the nerves is dryer than elsewhere; if the member resolved and loosened be actually hot; and lastly; if a trembling, or a fever follow upon it. It is to be instituted and ordayned, according to the nature of the causes, and the differences.

The differences of a palsy are very various.

I. One is Universal, in the which either the whole body (the head alone excepted) is seized upon, or at least, the one halfe thereof or one side of it. And then, if the Face be affected, the brain also, (together with the spinal marrow) is affected: But if at the parts beneath the face, then the beginning and first entrance into the spinal marrow (which we call the marrow of the back bone) is very far a-

miss in its transverse situation: but if the affect surprize only the one half of the body, one side then only of the Said spinal marrow is likewise affected, and becometh faulty.

Another is particular, when alone some one certain part suffereth. And then, if the Arms and hands be deprived of their motion, then the nerves that proceed forth from the vertebre of the hinder part of the neck, offend and are faulty. If the Feet, then those nerves that are in the vertebrae of the Loyns, and the Os sacrum or channel bone. If the eyes, then the second pair of nerves is affected, If the Tongue, then the seventh payr of the nerves is affected. And lastly if the voice fail, then those nerves that are called recurrentis, they only are affected and do suffer.

II. Another difference there is, arising from a distemper in the nerves themselves, by reason of phlegmy and cold humors, that relax or loosen and dissolve their tone: and these for the most part descend from the head. These humors may be known and more fully understood what they are, out of the Chapter touching the distemper of the head. The Cure is to be wrought, 1. by a gentle evacuation and imploying of the first and most principal passages, least that otherwise the preparatives draw the crude humors into the stomach; (and here vomiting procured and excited by the use of Crato his vomitory made of the Juice of the reddish in the which black bellebor hath bin steeped and infused, hath its place if the stomach be stuffed full of flegm) but then if the matter be in its flux and motion, the evacuation ought to be so much the stronger. 2. by a preparing of the matter, more than once, by Cephalick medicaments; among which Iva Arbetica, primrose flowers, the Flowers of Lilies of the Vally, are the best that are now adayes in use. 3. by purging, with mechoacan, or the Pills so much used by Solanander and Mathiolus. 4. by exciting and provoking of sweats with the Hydrotick of Quercetan, and the sudorifick of St. Ambrose; unto which there must be added, Guajacum, china, Treacle, Bezoardicum Lunare; together with other appropriate remedies; all which are to be followed and attended with frictions of the neck or the spina dorsi with onions, and the new fresh root of the flowerdeluce. 5. by a particular evacuation of the brain, by erethines, Apoplegmatisms, &c. 6. by the application of Topical remedies; where have their place, frictions, rubbings and chaisings with the water of ants, and the watter of sage, with tobacco leaves

leaves infused in Malmesey, Batches with formicetes, Rubifications (or rubbing the part till it become red) with green Nettels and other suchlike; inunctions with the unguent of *vipers*, the unguent likewise of the several sorts of pepper, the Unguent of *Castor*, the grease of the wild *Cat*, mans fat, &c. Natural or Artificial hot baths; touching which see further in *Hernius* his method. 7. by a diet that is hot and dry; concerning which consult the Practitioners in Physick.

Another is from the straightness or narrowness of the Nerves; which is caused, 1. By an obstruction, proceeding from a pituitous flegmy humor, and other things that are subtervent hereunto, and conducing unto the purpose aforesaid. Then the cure hath regard unto the Cause; touching which we have spoken sufficiently above, 2. a Constipation from some tumor or swelling, that hath its first rise in the substance of the spinal marrow, or of some nerve. 3. Compression, and that either from some external cause, or else from a Tumor, &c.

III. Another is from those Causes that dissolve or make a solution of unity in the nerves, in the number of which there is, 1. a Contusion, fall, or blow. And then a vein is to be opened lest there should happen an afflux unto the contused or bruised part. Astringents together with discutives are likewise to be applied and layed upon the part affected, unless (haply) there be present an inflammation. 2. a dissection; and for this there is no remedy at all to be had, 3. a relaxation (or loosening) of the vertebrae of the Back, suddenly caused, of the which sufficient hath been spoken in the second Book.

Another is from things narcotick, as for examples, a touching of the sea fish *Torpedo*, quick-silver, and the immoderate unseasonable drinking of wine, which rendereth the spirits extremely stupid and dull: and here in the cure whereof there ought to be a special regard had unto the nature and quality of the Cause.

IIII. Another is Colical, when a humor from the intestines is moved, not so much unto the beginning of the orifice or first entrance of the nerves, as unto the very muscles and tendons. The Cause hereof is a thin humor, that is both choleric, and wheyish. In the Cure we must deal chiefly and principally by clifters, that is to the perverse motion of nature may be inverted. A vein is to be opened, if there be present a Plethory and over great abundance of pure and good blood. We ought then to purge with gentle purgers (as we terme it) by an E-

picrasis or an often reiterated evacuation, and drawing forth of the peccant matter, leisurely and by degrees, some now, some then, and not all at once. Let sudorifics then follow, administered in primrose water, and the water of Lilleyes of the valley. The spirit of Niter is also of excellent use in this case.

Another is that which we terme *Scorbutick*; touching which see more in the *Scurvy*.

Another is that we call *Hysterical*; of which also we may see more in its own proper place.

Article. VI. Of a spasm, or convulsion.

A Spasm is an involuntary, perpetual, and painful Retraction (or drawing back) of the Muscles towards the place of their original and first beginning, arising from the abbreviation and shortening of the nervous (or sinewy) parts; which is evermore attended and followed with a Rigor or Extream stiffness, and a depravation of the figure, shape, and symmetry of the foresaid parts.

The part affected is a Muscle, and especially a Tendon.

The SIGNES are apparent of themselves: the Muscles are in such manner drawn back, that the parties are altogether immovable toward, and unto the contrary.

The CAUSE is, either a certain matter pulling and twinging the expulsive faculty of the parts; or else some disteate violently stretching out the nervous parts: and this sticketh fast either in the beginning and source of the nerves (to wit, the Brain) or in the Spinal marrow, or else in some one peculiar nerve.

There is hardly any CURE to be had, or hoped for, if it be from hellebore; if it arise and appear after a Phrensy; if it proceed from a wound, especially in the brain, by reason of a filthy stinking and corrupt matter pulling and twinging the nerves. The Cure is very difficult (although not altogether without hopes) if those parts that are situate neer unto the brain be affected, and suffer; if it happen primarily by the content of some nerve, in regard that then the sick person cannot possibly hold out and endure by reason of the vehemency of the Symptoms; if it arise from an abundant flux of blood; if it follow upon the monthly Courses in women; if it attend and follow upon fevers; or if it chance to be accompanied with vehement and acute pains about the bowels or intrals. It is more easie, if those parts only

are surprized and siezed upon that are more remote from the brain, and consequently the leis noble and considerable; if it be by the consent of the Brain, unless the affect that the brain lyeth and laboureth under, be pertinacious, obstinate, and unyielding. The Cure ought therefore to be *Instituted*, according to the Nature and disposition of the Causes; of which more fully in the Differences.

The Differences of a Spasm are very many and Various.

I. One is *Universal*, which affecteth the whol body. The Cause whereof, either, *It is in the Brain*, and then together with the body, the Muscles likewise of the Face are also drawn and pulled together, and suffer a Convulsion, or else it is in the *Original and beginning of the Spinal Marrow*, from whence it happeneth that the Muscles that move the Head and the spinal Marrow are retracted and drawn back. And then, either the body (with the Neck and Head) is drawn to the inner parts, (from whence ariseth that we term *Empresibotonos*;) or else the twelve Muscles that extend the Head being affected, the aforesaid parts are drawn backward, (from whence is that we cal *Opisibotonos*;) or otherwise the Muscles and Nerves (as wel the anterior as the posterior) being al of them affected, the whol body remayneth altogether inflexible and unmoveable: from whence ariseth that we cal *Tetanos*, with the which whosoever are affected, either they die within four daies; or else if they pass and out-live these, they then escape and recover. Another is *Particular*, of the Eye, Mouth, &c. Of which we shal see further in the proper place.

II. Another is from *Replexion*; which dilaterh the breadth of the Nerves, and diminisheth the Longitude thereof. *It is known* by the foregoing of the Causes, a sudden invasion and surprisal without any evident and manifest Cause, and exhasting, together with a *Flegmatick* habit and temperament. *It ariseth*, I. From the *Afflux* of a *Pituitous* and *Flegmatick humor* into the Nerves, according to their *Tunicles* (or little *Cotes*) and as they are essential constituting parts of the Muscles, and instruments of the motive operation. Then there went before it such a like kind of Diet, and the monthly Courses, Hemorrhoides, or other wonted Evacuations are suppressed. In the Cure, I. We must attenuate and Cut the peccant matter by a timely administering of a Clyster. In the next place, those things that are highly commended

and approved of, are, the *Treacle* of *Andromachus*, the *Water* or the *Spirit* of *Juniper*, and the *Balsam* of *Quercetain*. 2. We ought to Evacuate oftentimes with the milder and gentler sort of Medicaments; the stronger sort of them pour out, and quite expel the matter. 3. A Revulsion must be made by frictions, Gargatims, Cupping-Glasses, &c. 4. A Discussion of the offending matter must be wrought with the Oyl of *Castor* or *Euphorbium Turpentine distilled*, the Oyl of *Nutmeggs*, and the *Hot Baths* of *Sulphur*. 5. In the Diet that is used there must be no kind of Wine drunk. II. It proceedeth from an *Inflammation of the Nervous parts*; and then there is present a *Plethory*: a sal, or a blow, or something else that was violent, long continued and acute pains in the Nervous parts, vehement anger, and passions of the mind, &c. had their precedence. The afflux of blood hotter than ordinary is in great part the Cause hereof. The Cure is to be directed, and to look towards the Inflammation. III. From extream windiness: and then the Causes thereof, went before and it soon passeth away, & is gone. *To Discuss*, *Vervein* and *Mother-wort*, imposed upon the Neck, are very available. 4. It happeneth from the *wounding* or *pricking* of a *Nerve*, whether the said wound and hurt be simple, or poyonous; but of this kind of spaim we have treated before in the second Book.

Another is from *Inanition*, or extream emptiness, in which the Nerves are rendered and made shorter by reason of the exsiccation and sudden drying up of the Native Radical Humidity. *It is known* from hence, that it maketh us approach sensibly and by degrees, with a diminution of the member. *It ariseth* from Causes, that do either excessively evacuate, such as are, frequent and much bleeding at the Nose, sweats, and purgations with *Hellebore*; or else they vehemently heat, and dry up the radical Moisture; and such are, *Inflammations*, watchings, hard labor and over working, the drinking of much wine, immoderate and excessive venery, a long lasting pain, the *Hectick Fever*, and lastly, *Cauteries* or *Vesicatories* over frequently applied unto the Nervous parts. It is to be Cured. 1. By a moistening Diet. 2. By Medicaments that are *Analeptical* or restorative, and moistening; and such are the urguents *de Anseris & Cata assatis*, (that is to say, of a Goose and a Carr roasted) and baths made of Oyl; the fattening water of *Ferdinand*, (in his

his third Book, and the Chapter touching an Heſtick Feaver) made of ſwines Blood. Moxels of the Fleiſh of the Tortoiſe, or of Craw-fiſh. The Magiſterial of Hyacinth is ſpecificall.

Another is that we call *Phuſodes*, which hath its original from a groſs and thick ſpirit or Vapor, (excited by Crudities,) that fillech out the ſpaces of the Muſcles, and diſtendeth them with a grievous pain. It endureth ſo long as until the Muſcle be relaxed: it is quite removed and taken away by frictions, and rubbing and chafing of the parts affected; or elſe by annoynting it with *Treacle*, or *Juniper water*.

Another is *Illgitimate*, (as we term it) which proceedeth from the exſtimation, goading (as I may ſo ſay) and pricking forward of the Nervous parts by ſome painful affect, but yet without a perpetual extension and ſtretching forth of the ſaid parts; & for the moſt part it happeneth by content of the Orifice of the Stomach, or of the Womb. The aforeſaid grievous and painful affect is either from ſome diſtemper, or elſe from the ſolution of continuity.

Chap. 7. Of thoſe Symptomes that hurt the Internal ſenſes, the Reason and Motion, together with the External Senſes.

Article, I. Of *Incubus*, or the *Night-Hag*, and *Catalepsis*.

THe Symptoms that hurt the Internal ſenſes, the Reason and motion, together with the ſenſes External, are *Incubus* or the *Night-Mare* (as we uſually term it) *Catalepsis*, (we commonly call it a Taking) the *Epilepsie* or falling ſickneſs, *Carus*, and the *Apo-plexy*.

Incubus (the *Night-baggs*) is an interception of the motion, eſpecially that of breathing, and the Voice, with a falſe and Erroneous dream of ſome heavy and weighty thing lying along upon the *Breaſt*, and thereby cauſing a ſuffocation (as it were) and choaking of the Party, by means of the impeding and binding the free penetration of the ſpirit (the *Paſſages* being obſtricted and ſtopt) unto the *Nerves*.

The part affected is the *Brain*, eſpecially in the hinder part thereof, by which the pa-

ſage reacheth and attaineth unto the beginning of the ſpinal Marrow. The *Diaphragm* is likewiſe compreſſed, and kept down.

The **SIGNS** are, a heavineſs, and immovableneſs of the body, and chiefly the *Cheſt* or *Breaſt*, a ſlow and dul ſenſe, an imagination and conceit of a ſuffocation, (eſpecially in the firſt beginning of ſleep, & the party lying upon the back) and as it were an oppreſſion and keeping down by ſomewhat lying heavy upon it; inſomuch that the Patient can by no means diſtinctly call and cry out, but only make a confuſed and unintelligible Noiſe. The alone interception of breathing and the voice is brought and offered unto the imagination; in regard that the motion of the *breaſt* alone is mainly and principally neceſſary in the time of ſleep.

The **CAUSE** is, an interception of the Animal ſpirits, ariſing from a light *Obſtruction* of the *Ventricles* of the brain, and more eſpecially of the beginning of the ſpinal Marrow. That that cauſeth this obſtruction is a *Groſs* and *thick Vapor*, that is oftentimes cold, yea even *Narcotick*; and hence it cometh to paſs, that the party thus affected is ſo hardly awakened. That which proceedeth from a groſs and thick *Flegm*, or from a *Melancholy Humor* ſticking faſt in the *Hypochondria*, and neer about the *Precordia*, this (in theſe perſons) from *Gluttony*, ſurſetting and drunkenneſs (the ſtomach being thereby ſur-chaarged) from *Crudities*, or other ſuch like Cauſes being ſwolln and puffed up, and then moved, exhaleth and compreſſeth the *Diaphragm* and the *Lungs*, ruſheth violently into the beginning and entrance of the *Nerves*, and ſo creeping (as it were) and inſinuating it ſelf into the very feat of the *Imagination*, there intermingleth it ſelf with the ſpirits.

The **CURE** is the leſt to be hoped for, if from an internal cauſe it ſieze upon thoſe that are well in yeers; if it be of long continuance, and frequent, and ſuch as after which the ſick perſon remayneth ſtupid and blockiſh; if it happen unto the party while he is half aſleep and half awake, becauſe that then it cometh the neerer to the *Epilepsie* or falling ſickneſs; if after the awakening a cold ſweat, a trembling of the heart, a ſpalm, convulſion, or a *ſyncope* follow thereupon. It reſpecteth, 1. the *Paroxyſm*, in the which the ſick perſons are to be awakened & rouzed up, & the vapor is then to be diſſipated by frictions and Vehement rubbings.

rubbing. 2. The Cure respecteth the time out of and after the Pharoxyfm, in which. 1. A Diet is to be kept, which exactly requireth a thin and pure Air, sparing meals, especially a light and sparing supper, the use of no other Wine or beer but what is diluted and so made weak and smal; and lastly, a careful avoyding the supine posture of the body, or lying upon the back, when they go to sleep. 2. The matter that Foments the Vapors (if it be deeply seated) is to be Prepared by such Medicaments as cut and cleanse; and then forthwith to be Evacuated in a due and fit manner. The opening of the Cephalick or the Hepatick vein, and if Women (that complain of the suppression of their Menstrual blood) the opening of the Saphena Vein, (especially in case a Plethory be present) is very much to be approved of. 3. The head being first wel purged, is, without delay, to be strengthened; internally, with the Black seed of the male Piony; and likewise with Treacle exhibited and administred in the water of the male Piony; externally, by Lotions made of Cephalick Medicaments. 4. The Vapors that offend after meats, are to be Remedied and prevented by the frequent use of *Diacodonium*, *Corianders* prepared, &c.

Catalepsis, or *Catochus*, is a sudden surprisal of all the senses, the motion, and the mind, with the which those that are seized upon and invaded, remain and abide stiff in the very same state and posture in which they were taken and surpris'd, with their Eyes open and immovable.

Of SIGNS there is no need. As touching the Cause, the learned differ among themselves. It is most probable, that the spirits are fixed and rendered immovable by a *Fixative Vapor*, in such like manner as we read, that both men and Bruit Beasts have been Rendered stiff and immovable by lightening, Vapors, and exhalations brecking forth of the Earth. Yet notwithstanding even in this Disease there are to be recounted several Degrees. For some of them neither see, nor hear any thing; others both hear and see, but speak not at all; some again are seen to move their heads; and some of them being driven and thereunto forced, do walk. For the Cure of this most rare and sad affect, see more in the Practical Physitians. In the Topical Remedies hereunto appertaining, we ought to abstain from Vinegar, lest that by it the Correlative power should be augmented.

Article, II. Of the Epilepsie, or falling sickness.

The Epilepsie is a Cessation of the Animal and principal actions, together with a Convulsive motion of the whole Body, arising from a sharp matter, which by a peculiar and proper power and quality, it hath, that is hurtful and Prejudicial to the Brain, pulling and twinging the Nerves where they begin, streightening, and as it were binding them fast together, and irritating them unto Expulsion.

It is likewise called the *Puerile*, or *Childish Disease*, the *Herculean*, the *Comitial Disease*, (or the *Falling Sickness*) the *Lunatick*, *divine*, *Sontick*, or *noysom* and *hurtful*, and lastly, *Caducus*, or the *falling Evil*.

The Signs are, either of one *Imminent* and nigh at hand, and these are, the trembling and quivering (as it were) of the Nerves, splendours and bright shinings like unto the Rainbow flying and waving to and fro before the Eyes, the sense and smelling of some offensive stench, the Vertigo, and the yellowness of the Veins under the Tongue; or else of one *Present*, and these signs are, a sudden falling, a *Contorsion* (as they call it) or writhing of the Members of the Face, very improporionate unto, (or beating no proportion withal) the matter thereof, a kind of Roaring and Howling noyse that they make, the giting, and close clashing together (or as they call it, *Collision*) of the Teeth, the shutting and fast holding together of the Fingers, an involuntary and insensible letting out of the Urin, and sending forth the other filth and Excrements, foaming and froathing like unto the white of an Egg, &c.

The CAUSE is, either a *thin* and *froathy Humor*, or Vapor, the which whilest that they (by a peculiar and proper power and quality that is in them) twing and pul in the brain the principal of the Nerves, and so thereby introduce a constriction and streightning of the Passages; and whilest likewise they extimulate & provoke the sensible parts unto the expulsion of what is noxious and offensive, from hence it is that there followeth a shutting up, and drawing back of the spirits causing sense (which they term *Sensifical*) and so consequently by the want & defect of them, there follow-

followeth also ad iminution or total abolition of the aforesayd sensifical Spirits. And from hence it is, that al the parts suffer a convulsive motion. That which *disposeth* hereunto is either (by propagation and *inheritance*) from the parents; or else from their nativity, when as they have their birth in and during the Lunat Eclipse. That which fomenteth and maketh an abundant supply of the *matter*, is, the frequent use of Goats liver and Goats flesh; of Quails that devour and feed much upon hebebor, pigeons when they are somewhat old, Eels, sparrows, al kind of Pulse, Lenciles, &c. that it moveth and much promoteth the same, is the moon beams, the smelling of offensive and noysome stinks, the scent or smel of that fat and clammy earth that we cal Bitumen, of the Agath or Jeat stone, of Goats horns, harts horns, Goats skin, Myrh, Sulphur, Garlick, smillage, &c. an extraordinary strong and vehement feare, much tikling, and lastly, the impulse of the divel, &c.

The CURE is the *more difficult*, if al the Functions be abolished, if the convulsion be stronger and more vehement than ordinary, and of a longer cotinuance, and that wihal the Excretments flow forth of their own accord; if it happen before ripenels of years, and it it infect old and decrepied persons; if it invade women with child. It is *easier*, if it be but now beginning, if it hath shorter Paroxysmes, a convulsion not extremely vehement, if the sick party hath his breathing freely. But theris *almost no cure* to be hoped for, if it be hereditary, if it grievously afflict little infants, if upon the use of sternutatories the sick Party yet cannot be made to sneez. The Cure (when we set about it) *respecteth*. 1. the very *paroxysm* it selfe, either instantly and neer approaching, and then a drop or two of the essence of Castor, or the spirit of white Amber in the Antepileptical water of *Langias*, or else one pil of Opiate Ladanum, (unto which there ought to be added and therewithal mingled one fourth part of the oyl of Camphire) is to be taken and swallowed down: or else it hath respect unto the *Paroxysme now present* and in being, in which (among other remedies) the mouth is to be opened and a little bag filled with Rew, Castorium, &c. is to be interposed betwixt the teeth; then a Revulsion by frictions and ligatures is to be ordayned; in the next place, the belly is to be opened and impled either by suppositories, or a sharp and quick Clyster, in the which there are some that boil the dross or refuse of *Regulus Anti-*

monii. The Nostrils are to be anointed with the balsam of Amber, and of Rew. The tongue and pallate are to be besmeared and anointed with *Treacle*, dissolved in the vinegar of Rew: if the patient be not yet excited and raised by these means, then sternutatories are to be administered and applied, or else a turtle having al its feathers first pulled off, is to be imposed on the navel. *Inwardly* there is to be administered the water of sweet black Cherries, and that likewise of swallows, with the oyl of Amber, as also that of a mans skul. 2. the Cure hath respect unto *the time without* (either before or after) *the paroxysm*, in which. 1. Let the *matter* (the root of the evil) be prepared, the blood being first diminished, unless haply the malady be inveterat; then let it be purged forth by the *inferior waies* and passages, with Agarick, or some other convenient purger (and this at severall times by repetition, and not al at once) with special regard had unto the humors that possibly may very much abound. Then let the remainder of the same aforesaid matter be quite removed, and taken clean away by Sudorifickes, especially those exotick and forrien sweaters, to wit, China, and Guajacum, together with our Country birdlime of the Oak. 2. the *matter* that is left remaining behind in the brain, is to be drawn forth by errhines, Apcphlegmatismes, those remedies that we cal *setacea*, and lastly, by issues. 3. Let the *brain* be *corroberated* and strengthened by cephalicks and Antepilepticks. 4. Let there be a *diet* kept and observed, in the which al meats generateing vapours, especially such as favour and cherish the disease, wine, venery, &c. are carefully to be avoided. 5. Those things that are appropriated unto the head, and *do specifically resist the Epilepsie* (of which we are now treating) are to be added and together mingled wihal the aforesaid remedies; such as ate, *the root of the male Peony* gathered in July; at the waning of the moon, the right hoof behind of the beast called *Alx*, bird-lime of the Oak, the magistery of *mans skul*, the water of *Swallows*, of Cherries black and sweet, of the Linden or Til tree the oyl of *white Amber*, the oyl of *mans skul*, waters made of the dew that is gathered at the feet of *St. John Baptist*, in the night of that day, a Pouder that consisteth and is composed of *one dram of Crystall prepared, red Corall two scruples, oriental margarites one scruple, oriental Smaragds prepared half a dram*, and to

Exhibited and given in a fit and convenient matter, according to its own propper dose. There may be applied, outwardly, the *skin* of a *wolf*, taken from that part where it sticketh and groweth to the *spina* or Back bone, of two fingers breadth and worne like a girdle, and also the Amulet (ex frutice *sambuci* in *salice*) of Hartmans invention. One signe of a perfect Cure is this, viz. If the Patient fall not into his fits (which appeareth by his falling upon the ground) when there is put neer unto his nostrils a suffumigation of things of an ill and stinking favor.

The *differences* of an Epilepsie are very various.

I. One is that we terme *Recent*, or new begun, which if it be neglected in the begining, most commonly it dieth together with them that are deteyned and kept under the power of it. Another is that we call *inveterate*, which whether or no it may be cured, is for the most part very doubtful and uncertain.

II. Another is that which is *more mild* and moderate, in which only some certain parts are drawn together and suffer a Convulsion; and the sick person when he cometh again to himselfe, as we say, is wholly ignorant of all that he did. Another is more sad and *grievous*, in which there is a Concussion and convulsion of the whole Body.

III. Another is that we term *Periodical*, which invadeth and seizeth the party once or twice in every year, or it may be, every month (at the new and full moon) or perhaps oftener, but yet evermore at those times and such intervals as it was alwaies wont to keep. Another is that which *keepeth not*, neither observeth any periods, but afflicteth and surpriseth the patient, sometimes more rarely, and sometimes again often, and frequently.

III. Another is that which is such in its own essence, to wit, when there is an epileptical disposition in the very brain. It is known by this, that a man suddenly falls down, without any the least pre-apprehension and sense of its paroxysm, and that when he returneth to himselfe he remembereth not any one thing of what was done, and lastly, that he is affected herewith chiefly and principally (to which I may likewise ad, very frequently) about the new and full of the Moon. It *ariseth* and hath its first birth from those very same causes of which we have spoken above; and it is also to be Cured in the self same manner. If there there be any need of venesection, then let the Cephalick vein in

the Elbow be opened; and here likewise fontinels or issues, and those external and manual remedies which practitioners call *seracea*, are of singular use. In this difference alone there may be a cautery applied unto the Coronall suture. It sometimes *happeneth* by reason of an impostume in the brain; and sometimes from the corruption of the Meninges or Membranes thereof; sometimes again by means of a rotten and petrified skull, a wound, &c. touching which enough hath been already sayd in its proper place.

Another is by Consent or agreement with some other parts, when the cause being before produced and begotten in the inferior parts is lifted up into the head, and there excieth an Epilepsie. It is known by this, that the paroxysm when it is nigh approaching may be perceived and foreknown; and a certain kind of air (as it were) ascending from an inferior part, there is a pain perceived in some one part or other; and then the sick person returning to himselfe remembereth the paroxysm. The Cure is to be ordered according to that part that most requireth and commendeth it, and the matter that tendeth upwards is to be drawn back again. It is variously divided; of which we shall speak more in the following difference.

V. Another is from the stomach; in the which the sick persons fall into the epilepsie: if they take not their food often, then there are present signes and tokens of a distempered and affected stomach. In the cure, we may safely and successfully have recourse unto vomits, &c.

Another is from worms, which are easily discovered by their signes. Unto scoleobroctick Medicaments there ought to be added and therewith mingled Antepileptical remedies.

Another is from the womb; which is known by this, that there is then some affect or other of the Womb present; to wit, the suppression of the courses, the retention of the Seed, or the Secundines, a dead child in the womb, &c. The Cure is to be directed and to look toward the Affects in the which the root of round aristolochy is much commended. Note here, that the water of swallows distilled with Castoreum, Galbanum, and vinegar, is most proper and convenient; that for a woman great with child there ought not upon any termes sweet smelling odoriferous things be applied or laid neer unto her wombe; yea likewise, that all odoriferous medicaments, since

they offend the Head and make it heavy, are well removed from it.

Another is from the *External parts*, either wounded, or ulcerated, or else hurt by biting, which is exactly and diligently to be examined and inquired into, lest that otherwise it should be mistaken for that which proceedeth from the Womb. It is to be Cured according to the Nature and quality of the Causes.

VI. Another is of such as are grown up, and have attained to maturity of yeets; unto whom al that hath hitherto been spoken upon this subject, is to be applied as most fitting and agreeing unto them.

Another is of *Infants*, in the Cure of which, if they be yet sucking at the Breast, in the *Paroxysm* we must then proceed so as is above declared; only there must be special Care and regard had unto the tenderness of their Age. Out of the *Paroxysm*, the Nurse ought (as far as necessity requireth) to have appropriate Medicaments given her to drink, and withal the Infant is to be Evacuated and emptied with *Syrup de Tribus* (as the shops call it) and then his brain is to be strengthened, and the impostums, (if any there be that break out) are by no means to be hindered in their flux, but on the contrary, they are by all means possible to be furthered. There are some that (in this case) do very much commend the anoynting of the whol Body with *Butter unwashed, unsalted, and Mingled with Rue bruised and beaten in a Mortar*. An approved Remedy to preserve from this sad and fearful affect, is, the preserving power of Hartman, the *Aqua Vita* that is usually Exhibited and given unto *Women with Child*; *Oyl of sweet Almonds with Sugar*, given to Children new born. In that Difference that is by consent; there is to be highly commended the Emplaster of *White Amber, of Frankincense, and of Mastick*, of each one dram and an half, of *Galbanum, Opoponax*, of each one scruple, of *Birdlime of the Oak two drams, Amber six grains, Musk three grains, Male Peony seed half a dram, Ladanum a dram and half*, of the *Oyl of Nutmeg a smal quantity*, all these aforesaid being strewed over with the powder of *Cubeb*, the emplaster must be spread upon leather, and so imposed upon the Abdomen or lower belly. But if (in *Women*) it happen, as many times it doth, from the *Curdling of the Milk*, then that which is of singular use is a Cataplasme formed of *Elm-*

leaves (three parts) boyled in the Urine of a Child, with two ounces of butter new and fresh, and then applied unto the Region of the stomach. The Cure of *Children that are weaned* differeth not much from those before mentioned.

Article, III. Of *Carus*.

Carus is a deep and profound sleep, with the hurt of the sense, and motion; (the breathing only excepted) and likewise the *Imagination*, arising from the impeded motion of the *Animal spirits*.

The SIGNS are, sleep (with the Eyes alwaies shut) so profound, that the sick person being asked never so many questions, yet answereth nothing at all; and so it is distinguished from a *Cataleptic* and a *Lethargy*: a retraction or drawing back of the Member if it be pricked, which is not done in the *Apoplexy*; a free respiration and breathing, unless the vehemency of the Cause be most extrem and intense.

The CAUSE is the prohibition and hindering of the influence and exercise of the *Animal spirits* upon the senses and the Motion; of which the divers and different Causes shall be declared in the subsequent differences.

CURE there is *None*, if it chance in the declining of continual Feavers, the strength and powers of the body being extremely weakened. It is of much difficulty, if the breathing be hurt; if it be Joyned together with the heaviness of the Head, because that, a humor not over gross and thick penetrating into the substance of the Nerves and extending them, immediatly a Convulsion followeth; and lastly, if it befall the party after some great Evacuation. It is Accomplished according to the quality and condition of the Causes.

It is divided five manner of waies.

I. One is, *When there are no Animal spirits generated*, which happeneth when either the *Arteries Carotides* that carry the *Animal spirits* unto the brain are hurt, or else when the *Muscles of the Temples*, (having a very notable and singular agreement and consent with the brain, by the intercourse of some eminent Nerves) are Compressed, or bruised.

II. Another is, *when the Animal spirits are dissipated*, which cometh to pass, either from some extraordinary and excessive Evacuation, or else from some exquisite pain,

proceeding from either an external or an internal Cause; or else, issuing from the Defatigation, wearying, and tiring of the Brain, by reason of an over-great and extream shaking thereof; which cometh to pass in that heavy deep sleep that hapneth in the Close and conclusion of the Epileptical Paroxysm.

III. Another is, *When the Animal Spirits are stupefied and made, as it were drowsie.* And this is done, either externally, and that, 1. *From the fume of coals* kindled in some close room, or Parlour; of which we have likewise spoken above. 2. *From the use of Narcotick Medicaments, Opium, Hen-bane, &c.* Where Castoreum with Oxymel or Cassia Lignea have their place. 3. *From Poisons*, either taken inwardly, or else outwardly applied; where Treacle ought to be administered. Or else, internally, 1. *From Vapors* sent forth in Feavers; and 2. *From the same Vapors elevated by Worms*; touching which, their proper places are to be consulted. The Cure may be sought out and found in the following Member of the Difference.

IV. Another is, *When the Spirits cannot penetrate unto the Members.* And this is done, I. *From the Compression* of the skull and brain; of which above. II. *From the Obstruction of the Passages*; and then there will be present signs of Flegm. In the Cure; (a regard being had unto the whol body) Revulsions, head-purgers, &c. are to be administered; and then we may see what is further to be done, in the Cure of the Apoplexy.

V. Another is, *when the spirits are greatly disturbed*, as in case of a blow, fall, or any other accident whereby the Head is hurt, &c. Of all which see more in their own places.

Article, IV. Of the Apoplexy.

The Apoplexy is a sudden abolition of all the Animal functions, the breathing alone remaining, (and this likewise now and then exceedingly afflicted) arising from the straightness and shutting up of the Passages, (especially about the basis of the Brain) by the which the Animal Spirits are derived unto the Members.

The part affected is the Brain, not only according to the ventricles thereof; but likewise according to its pores, and especially near about the inferior and hinder part thereof, where the Nerves begin and take their Original.

The SIGNS are (of an Apoplexy imminent and nigh at hand) sometimes none at all, sometimes a lightness and twimming in the head (which we usually call the *Vertigo*) dimness of the Eyes, and wellnigh loss of sight, the Incubus or Night-hagg, a trembling of the whol body, the grating of the Teeth in sleep, an extream coldness of the External Parts, an abundance of Snot and Stivel, the heaviness of the Head, &c. The signs of an Apoplexy Present, are, the abolition of the sense and motion, and this suddenly and with snorting; and by this it is distinguished from *Curtus*; that it is without a Fever and excitation, and so it is differenced from a *Leibargy*; that it is with a Relaxation and loolness of the Members, a full pulse, and the Face retaining still its color; and thus it is distinguished from a *Syncope*, and the *Suffocation of the Womb*.

The CAUSE is, the straightness or narrowness of the turnings and windings, and of the pores of the Brain, (especially of the Basis thereof, and of the *Rete admirabile* therein,) as it effecteth a shutting up, or shutting in of the spirits. But from whence this proceedeth, we shall show further in the Differences.

CURE there is None, if upon a Difficult drawing of the breath a sweat enue; if immediately the sick persons stricken suddenly mute and dumb, and without snorting aloud, be not surpris'd and set upon by an acute Fever, which haply might attenuate and dissolve the Picturous flegmy matter, and likewise the flatulent Vapor. The Apoplexy usually, if not alwaies, is terminated, and endeth in a Palsie. It Respecteth, 1. *Preservation*, which preventeth and taketh away the Antecedent Cause, and this varyeth according to the Nature of the Differences. 2. It hath respect unto the Cure spoken of in the several species; which is to be begun with a Prognostick, (when we are to make a discovery whether or no there be any life in the Party) either by lighted Candles (the windows being shut) put as near as may be unto the Nostrils, or else by a looking-glass clean wiped & put to the mouth of the party. It is to be Performed, 1. By a due and fit placing of the sick person, that so he may the more easily attract and draw in the Air, together with a light and gentle concussion and shaking up of the party (lest that by a more violent rowling of him the matter should be dispersed all the body over) as also by a rubbing

bing of the extreame parts with Salt and Vinegar. 2. By the Revulsion of the matter, by Cupping-Glasses imposed on the head, (which is indeed the only Remedy) by strong forcible Clysters and Suppositories; by opening of the Cephalick vein, or the common Median Vein, (without the least delay, and that likewise by several Repetitions, and not all at once, and yet all within the space of a very few hours) and also, lastly, by opening of the Jugular veins, according to their length. 3. The matter is dissipated and scattered by the use of Antiepileptical waters, by which the Brain is exceedingly recreated.

The Differences of the Apoplexy are many and Various.

I. One is *Legitimate*, of which more in the subsequent differences.

Another is that we call *Bastard* or *Spurious*; which ariseth either from the *Obstruction* of the *Arteries Carotides*, and the *Jugular Veins*, (of which see in *Carus*) or else from *Narconick Vapors*, that stupifie and make dull the spirits; where Revulsion hath its place, the Evacuation of the matter fomenting and cherishing the Disease, and the breaking of the stupefaction by *Castoreum* with *Vinegar*.

II. Another is from the *Obstruction* of the Basis of the Brain; which is caused, I. Either from a *Flegmatick* and *thick Matter*, either dissolved by heat, or else driven forth by cold into the Passages of the brain. It is known by the tokens of a cold distemper. It ariseth from the same Causes. It is Cured, 1. By the *Evacuation* of the peccant Matter, by *Venesectiō*, after that by a strong and forcible *Purgation*, by *Erbines*, and *Sternutatories* put up in the form of a powder; among which that *Note-purger* (the Latines and Late Physicians call it *Nasipurgium*) of *Bartoletus* is much commended; by *Frictions* of the tongue and *Palate* with *Treacle*, or *Mustard Seed*, his last *Boyled* in strong *Wine*; by *Cauteries*, *Issues*, &c. *Vomitories* have here no place. 2. By *strengthening* of the *Brain*, by *Cephalick waters*, the *spirts* of *black Cherries*, the *Essences* of *Rosemary*, *Sage*, the *Balsams* of *Marjoram*, *Amber*, *Rue*, &c. II. Or else from *gross* and *thick Vapors*, with the which we ought to proceed, and to deal in the very same manner, as aforesaid.

Another is from *Compression*, which is caused, I. Either from *Violent Causes*, as for instance, a *Concussion*, a *Blow*, a *Wound*;

of al which see above. II. Or from *cold* and *moist humors*, (heaped up in the *Brain*;) by their constant and continual watering and moistening of the *Brain*, Rendering the substance thereof (that is naturally soft) by far more soft and loose; touching which see more in the former member of this same Difference.

III. Or else from that which they call *Flegmonodes diathesis*, that is to say, an abundant store of blood all at once (as it were) rushing & thronging into the source and spring head (as I may so term it) of the *Animal spirits*. It is known by the signs and tokens of a *Plethory*; there is some wonted *Evacuation* suppressed. It ariseth from the same Causes. It is Cured, like as is that which is caused by a *Flegmatick obstruction*; Yet notwithstanding in this case plenty of blood may be emptied forth of the veins.

III. Another is a *light* and *gentle* Apoplexy, which most commonly endeth in a *Pallie* of the one side or the other, and in which the breathing keepeth some kind of order.

Another is *Veherent*, in the which the *Respiration* or breathing is *violent*, *unequal*, *inordinate*, and *intermitting*.

Another is *strong*, in which the breathing is *violent*, there is also a *nothing* to be heard, and there appeareth likewise a *froth* which is but very little, if it be excited by the very humidity of the *Lungs* from some most vehement compression of the *Heart*; but very much, if it proceed from a *pituitous* or *Flegmatick humor* that is full of *Wind*.

Another is the *strongest* and most dangerous of al, in the which the breathing is (as to the sense) altogether abolished.

Chap. 8. *Of the Symptomes of the Excrements of the Head.*

A Single Article, *Of a Catarrh.*

The Symptom of those things that are sent forth from the *Brain* (by way of *Excrement*) is a *Catarrh*, which is nothing else but a *Defluxion* or *flowing down* of some *Excrementitious Humor* (generated by reason of the *Concoction* of the *Brain* its being hurt) from the *Head* upon the parts that are situate underneath it, proceeding from distemper therein, or else from an over abundant *Repletion* irritating and stirring up the *Expulsive Faculty*.

The

The **SIGNES** are, of that imminent and near approaching, a sensible weight & heaviness in the head, dimness of the eyes, a sluggishness and drowsiness of the senses, sterouration or sneezing, &c. The Signs of a Catarrh present and in being, a sensible feeling of a distilling humor, a cough, frequent sneezing, &c.

The **CAUSE** is a *Pblegmatick* humor, which is sometimes altogether *insiped* and tasteless; sometimes *sharp*, salt, acid or tart, discolored; it is sometimes *corrupt*, and peccant in its substance: which. 1. is *generated* either in the brain, by reason of its concoction hurt; or else by some fault of the very brain it selfe; or else by reason of something amisse in the aliment; or from some other place, and sent thither, especially in those that have either their brain cold, but their stomach and their Liver hot; or otherwise these cold, and their brain hot. 2. it is *moved*, either by the *expulsive faculty* irritated and excited; or else from causes *introducing heat*, that attenuate and make thin the humors, and withal open the passages; or else from *Causes producing coldness*; which either expel forth those humors that are in the brain, or else (at least) melteth and dissolveth them by the fuliginous and footy quality that is reteyned, and likewise the heat therein augmented; or else from *Causes Concussive* (as we may terme them) which over vehemently move and shake the brain. 3. It *floweth downward*, in regard of the terme or place from whence it descendeth; or else from the parts that lye underneath the Scalp or skul, and more especially the ventricles of the brain it selfe; or else from those parts of the head that lye without the skul, especially under the skin of the Crowne of the head, where the extreame parts or ends of the veins (by the face and the Temples creeping up (as it were, into the head) are terminated: in regard of the terme or place to which they flow, it is either unto the *internal parts*, the lunges, the nostrils, the stomach, &c. or else unto the *parts external* and that not alone between the skin and the flesh; but likewise throughout the veins and arteries, and also the Continuity of the muscles, veins, and nerves.

The **CURE** is the more *Difficult*, if the Catarrhs be more frequent than ordinary, and withal more greivous; if they rush down with a kind of impetuosity and violence; if they invade ancient people; if they are joyned and meet together with a pain of the head.

It bath an eye and regard, 1. Unto the matter generated, which is forthwith to be evacuated: and in the next place we must indeavour to prevent the further growth and breeding thereof; and to this end, the disposition of the part that supplieth and fomenteth it is to be corrected. 2. It respecteth the matter as it is now flowing; which is to be drawn back, intercepted, and the part receiving it to be corroborated and strengthened. See more herof in the differences.

A Catarrh is (especially) *divided* in a three fold manner.

I. One is from a humor both cold and moist and this, 1. either copious, and rushing downward with a greater violence; (and then venesection in the external vein of the elbow is to be administered; lest that from the rest of the Body the humors should flow hitherunto) or else, but very little, neither rushing down with any force at all; (and then in this case, especially in old age, we ought to abstain from venesection) 2. or else, from a humor thin and waterish; and then it ought to be prepared moderately by those remedies that incrassate or thicken; as for instance, the decoction of *frankinsense*, of *Mastic*, of *Betony*, and of *Nutmeg*: we must then purge but with medicaments of the gentler sort, that so the peccant matter may not be too much stirred, and so dispersed throughout the body; and such remedies are as followeth, to wit, *Manna*, and *Mechacacan*: we ought in the next place to make use of particular evacuations, by *Errhines*, if the Mocher flow into the *Brest and stomach*; but by gargarisms and *Aphlegmarismes*, if it flow unto the eyes and nostrills; and then all things being so disposed, that they may fix and impede the impetuosity of the Catarrh, the laid catarrh is then to be dried up, and the head to be strengthened, with the little roles of the flower of sulfur, yellow Amber pulverized, tyed up in a smal bag, made warm in the spirit of malmsey, besprinkled with some drops of the oyl of Amber, and so applied unto the crown of the head; the nostrills and the Temples having been first of all wel anoynted therewith; with the decoction of the China root, *Sassafras*, &c. or otherwise from a humor that is thick; and then it is to be prepared with such medicaments as warme and attenuate, viz. the decoction of *Hisop*, *Rew*, *Oxymel Simple*, *Oxymel scillicick*, (or with squils) we must then purge with *Agarick*, and the extract of the *Cochy* pills. Then we ought to evacuate particularly; where, among
the

the Extrines, we prescribe the Seed of *Roman Nighshade* pulverized, and together with the water of *Marjoram* snuffed up into the Nostrils out of the hollow of the hand. Then the Head is to be fortified and strengthened; for which purpose we commend the water of *wild betony* distilled with Wine, of *Hartman*; as likewise the *Medicate wine* of the same.

Another is from a hot humor, which is, 1. to be removed and taken away, by Venesection, or Cupping-glasses, lest that (the Head being so hot) there should be more of the Humor attracted. 2. It is to be Prepared with cooling Cephalicks, and such as are moderately astringent. 3. It is to be Evacuated with *Rhubard*, &c. 4. The Fourth proceeding in the Cure ought to be as is before declared.

II. Another is that that *risseth* with force and Violence, which (besides the diversions, and those other Remedies already spoken of) requireth also Interception by Medicaments that stop the flux, and incrassate or thicken the thin Humor, and these to be administered, after Supper, about bed-time, without any waiting for, or expecting a concoction thereof: and such are, *Treacle new made*, *Bole Armoniack* red and light, the bones of a mans *Skul* burned, *Opiate Laudanum*, Pills of the herb *Cynagloss* or hounds Tongue, Pills *Asajeretb*, the *Arabick Pills*, *Wierus his pills*, Pills formed and made of *Syrax Calamite*; the Juice of *Liquorice*, *Frankincense*, *Myrrh*, *Opium*, of each half a dram, *Saffron* one scruple, with as much of *Poppy* and *Rheubarb* as shall be thought fit and sufficient; the *Trochisques of Poppy* of *Mynsichtus*. If the humor be salt, then *Spike* is to be added; and in those that are *Assbmatieal*, all sorts of *Odoriferous* suffumigations and perfumes are to be shunned. So soon as they awake in the morning, that that hath flown down into the Breast is to be Evacuated.

Another is *Suffocative* and choking, which with great violence floweth to the Lungs and Heart. Unto this we must with all possible speed apply a Remedy by *Revulsion* by Clysters, Frictions, Applications of Emplasters (the hair being first cut short, or shaven) that have in them a power to suspend and keep off the Catarrh; inunctions and often anoyntings of the Nostrils with the balsam of yellow Amber, Suffumigations, &c. In this case, likewise, there is not known a more present Remedy than a *Vomit*, in regard that it also driveth

and casteth forth whatsoever is stuffed and impacted into the Lappets of the Lungs.

III. Another is from a Matter that is gotten together in the brain, through some default of the said brain,

Another is a certain matter, that is communicated unto the brain, either from a colder stomach, and a Hotter Liver, or else from some other Bowels. In the Cure of this, the parts commanding are especially to be heeded, and due provision is to be made for them. And those that find themselves subject and liable unto more frequent Catarrhs, these ought every month (a little before the new of the Moon) gently to purge the Body, and more especially if their belly be dry and costive. The Wine of *Pope Adrian*, which is so extremely commended against Catarrhs, is Composed of the Rinds of all the *Myrobalans*, together with their Kernels first of all dried, of each two drams and an half, *Cinnamon* one dram, *Cloves*, *Galangal*, *Cubebs*, *Cardamom's*, *Grains of paradise*, of each half a scruple, *Red Roses dry* one dram and half, the flowers of *Rosemary* (or *Antbas*) and of *Lavender*, of each half a dram, well beaten together, and then mingled with seven measures of Wine.

Title, III. Of the Diseases of the Eyes.

Chap. I. Of the Affects of the Eye-Lids.

WE have thus finished the Affects of the Brain; the Diseases of the Eyes, either they affect the parts encompassing about the Globe of the Eye, or the constituting the same; or else they touch and affect the whole globe it self of the eye. Those parts that surround and encompass the Eye are the Eye-Lids, the Eye-brows, and the angular flesh at the corners thereof.

The Maladies and affects of the Eye-Lids are;

I. That we call *Trachoma*, or a certain roughness of the internal part of the Eye-Lids. It is known, by the redness thereof, the itching, and (as it were) the sticking out of Millet grains. It ariseth from an adust humor,

mors, that is, Salt, sharp, and biting; and oftentimes likewise, from over sharp Collyries. It is Cured by the Evacuation of the body; by the avetting and turning away of the matter by Repercussives; by the application of Topical, first those that we call Emollient or mollifying, and qualifying the Acrimony of the peccant humor; and then by and by such Topicks as cleanse; as for instance, *Aloes dissolved in Rose Water, and Myrrh dissolved in a Woman's Breast Milk*; which ought now and then to be intermitted, lest that they over forcibly make an impression of their strength upon the Eyes; and by rubbing of the Eye-Lid inverted and turned the inside outward with Sugar Candy, even until the blood follow. It is divided in a two-fold manner. I. Into that we call *Dafutes*, in which the Eye-Lids are only red, rough, and itching; *Sycosis*, in the which there are sticking out as it were the smal grains or seeds of Figs; *Tylosis*, in which the part being exulcerated contracteth to it self a sciffure, and callosity or an insensible hard and thick Skin; and that we term *Psorophthalmia*, or a scab of the Eye, which affecteth the whole Eye-Lid, and specially toward the corners of the Eyes, and this is Cured, (Universal and general Remedies being first premised) by a Liniment of Roses, and adding thereto a very little of Tutty prepared. II. It is divided into that which hath its original from the blood; in which the itching is not so great as in the former; from yellow *Choler*, in which there are smal pustules or pushes; from *Salt Flegm*, out of which there passeth forth more of the ferous or wheyish humor; and lastly, from *black Choler* or *Melancholy* in the which that which cometh forth is discoloured, Black, and Blewish.

II. The second Malady and affect of the Eye-Lids, is that we call *Empysemata*, a Tumor or swelling of the Eye-Lids; which happeneth, either from *external Causes*, to wit, the spiders touch, the stinging of the wasp, the Bee, or the Nettle (and then a Bee bruised and beaten to pieces is to be imposed upon the place) Treacle, and the Juyce Of Plantaine, are to be spread; and the place anoynted therewith. Or else from *Causes internal*, to wit, a *Hot humor*; (where the Ophthalmick of *Rhasis* hath its place, and is of singular use :) A *Waterish* and *Wheyish humor*, in Feavers of long continuance, watchings, and in the Cachexy; and here Fomentations of a Decoction that Mollifyeth and

scattereth, are rightly and fitly administered.

III. The third Affect is termed *Coalitus*, when either the Eye-lids grow together one to the other, or else with the white, or the horny, or both those Tunicles of the eye. It is not to be Cured without much difficulty; if the Eye-Lids wholly grow together: but *seldom or never*, if they grow together with the *Cornea* (or horney) Tunicles: but *more easily*, if it stick only unto the eye in the extremity thereof and if it be only (as it were) agglutinated or glewed together unto the *Adnata* Tunicle. It ariseth either from an *Ulcer* negligently and unskilfully Cured (in the which whatever in the healing thereof might have been drawn forth, hath been agglutinated; and here in this case opening of the part affected taketh place) or else it hath its Original from a *Flegmatick*, and *Viscid* or clammy matter flowing unto the eye-lids; and here we are to make use of Revulsion by *Vesicatories*, and likewise *Repulsion* or driving back of the aforesaid matter.

IV. The *Cancer*, whether exulcerated, or not; of which we have sufficiently spoken before in the second Book.

V. *Inversion*, which we may likewise call *Ektropium*, to wit, the turning inside outward of the lower Eye-Lid, arising, 1. from a *Resolution*, or *Palsie*; of which see elsewhere. 2. From the *Increasing* of the flesh in the internal part, which is either to be consumed by Medicaments, or else wholly to be taken away by section and cutting thereof. 3. From the *ill curing* of the wound or *Ulcer*; where likewise incision hath its fit and proper place. Or else it is that which we term *Lagophthalmos*, to wit, of the superior eye-lids; proceeding from the *undue conformation*, or ill frame thereof, which in regard of its compofute wil hardly admit of any Cure. 2. From the *custom* of Children, that in their Cradle are continually looking upwards; and this may be Remedied and prevented by rolling and twashing about their Head with black clothes, whules they lie in the Cradle. 3. From *Convulsion* and contraction; and this requireth Emollient Ophthalmick Remedies. 4. from a *Wound* or *Ulcer ill Cured*; in which case, either the *Cicatrix* is to be Mollified; or else there must be a Manual operation as the Cause, and as necessity shal require.

VI. That we call *Hydotis*, (the Latins term it *Aquila*) or an increate of the unctuous sub-

substance in the upper Eye-lid, pouring forth (continually) a Humor, especially in the morning berimes, before the light appear. It ariseth (especially in Children) from a serous or wheyish humor, that is fallen forth and gotten betwixt the Membranes of the Eye-lids, in the midst whereof there is that Unctuous or Oily substance. And this is either Recent and new begun, (and then it is sometimes taken clean away with Fasting Spittle;) or else it is that that hath been of long Continuance, and included in its peculiar Membrane; and this requireth the operation of the hands.

Chap. 2. Of the Affects, or things that are amiss, in the Eye Brows.

The affects of the Eyebrows are;

I. That we cal *Hordeolum*, being a small Tumor or swelling, which when it cometh unto a Suppuration is very like unto a Barly Corn; from whence it hath its aforesaid denomination. It hath its Original from a Flegmatick Humor, thick, and mingled with blood. It is taken away by Barly masticated or chewed upon an empty stomach, and so applied; or by the body of a fly (the head thereof being cast away) if it be rubbed therewith. If it cannot be suppurated, then Let it be cut and opened.

II. That which we cal *Grando*, being a round little rising or swelling, transparent, and movable thirther. It riseth from a matter that is hard, even as hard as a stone. It is to be Mollified and suppled with *Ammoniacum* dissolved in Vinegar, and mingled together with the Fat of an Hen, or Turpentine and Wax.

III. That we cal *Madarosis*, or a Shedding of the hair, which for the most part invadeth the patty after Malignant Feavers. See more hereof before, in the second book. If there be together present with it a Crassitude or thickness, a Callosity or insensible hardness, and a redness of color, and that the Eye-Lids swell, and become shining, it is then named *Trichosis*.

IV. *Trichiasis* when preternatural Hairs growing up under the Natural hair and pointing inwardly, do prick the Tunicles of the eyes. It ariseth from Humors flowing to the extremities of the Eye-lids, either by Reason of some long continued swelling, or else by reason

of their being shut up, and, as it were, bound in there. It is Cured, 1. By the Total Devulsion or drawing forth of the peccant Humors (and an inunction or anoynting with the blood of green Frogs ought ever more to follow upon this said devulsion;) 2. By Corrosion, by Corrosive Medicaments anoynted upon the place with due caution. 3. By Section or cutting, of which see further in the Practical Physicians.

V. *Phalagosis*, when (the Eye-Lids turning inward) the hairs appear not, unless the Eye-Lids be lifted up. It ariseth either from Pituitous Flegmy humor that load and make heavy the Eye-Lids; or else from the exsiccation or excessive drying of the Cartilage, together with a depression of the Skin toward the eye brows, ever more following upon the former. For the Cure hereof you may likewise consult other Authors.

VI. *Phthiasis*, or a great abundance of Lice, arising from Nastiness and Filthiness in those especially that seldom or never wash, and keep themselves cleanly, and such as use a naughty and corrupt kind of Diet, delighting themselves in unwhollome food; and sometimes also it hath its rise and beginning from Contagion and infection. It is to be timely and seasonably Cured, lest that it excite and cause sharp Defluxions. And here (in this case) the washing of the Eye-Lids, with the Decoction of Betony and Scavifacre, is much commended.

Chap. 3. Of the Affects, and what is amiss, in the Flesh that is in the Corners of the Eyes.

The Affects of this Angular flesh, are;

I. *Rhyas*, or a Diminution of the Caruncle, (Viz. The little piece of Flesh) that is situate in the greater Angle or Corner of the Eye; upon which there flow forth involuntary Tears. It ariseth either from a defect of Aliment; or else from Corrosion, and this either proceeding from Corrosive Medicaments, or else from the afflux of a sharp and Tart Humor, and it happneth after the *Epiphora* or dropping of the Eyes with Rheume; the small Pox and Measles, and deep Ulcers: or else from incision, which can by no means be Cured.

II. *Encanthis*, or the increment of the Caruncle according to the greater Angle or

Corner of the Eye. It hath its Original, either from the ill curing of the Pterygia, (as we call them; they are certain distempers in the little wings and as I may so term them, of the Eyes:) or else from an overgreat afflux of *aliment*: if the Malady be great and of long standing, its not then to be Cured without calling the assistance of Chirurgery.

III. *Ægilops*, which is a little swelling arising betwixt the greater corner of the eye & the root of the nose. It proceedeth from a certain matter driven forth to the Corner of the Eye. It is variously divided; 1. Into *Anchilops*, which is a Tumor not yet broken, and without any inflammation; it proceedeth from a dul and sluggish Humor, (somewhat resembling honey, and a Pulstie) that most commonly is shut up in the little bag thereof, and affecting the part, without solution of Unity; and it is to be quite taken away by Section or cutting, and 2. into *Ægilops*, properly so called, which is a swelling broken, and with an inflammation. It is known by the smart and pain that attendeth it, the change of its color, and the immobility and fixedness of the Tumor or swelling. It hath its Rise from blood poured and shed forth of the Temple Veins, the Fore-head, or the Face Veins; and chiefly if there be a Concurrence of any external Cause. It is Cured, 1. With some Difficulty, especially if it siez upon the deeper parts thereof, if when broken it retire inwardly, because that it easily Corrupteth and spoileth the bones that lie underneath it; if it come neer unto the Nature of a Cancer. 2. Is cured after the manner of other inflammations. And for the most part that kind of *Fistula* they call *Lacrymal*, followeth and attendeth upon it; which (as well by Reason of the continual a flux, as the perpetual motion of the Eye) is for the most part to be accounted a Chronical Malady and distemper. In its Cure, before it be consolidated, we ought well to look and consider, whether or no it hath contracted and gotten to it self a *Callum* (as they term it) or insensibleness, and whether or no there be any bone Corrupted which the roughness of the bone, or the sound and noise that it maketh wil soon discover.

Chap. 4. Of the Diseases of the Adnata Tunicle.

Article, I. Of the Ophthalmie.

THE Parts Constituting the Eye, either they are the Tunicles, Viz. *Adnata*,

Cornea, *Uvea*, and *Aranea*; or else they are the Humors thereof. The Diseases of the *Adnata*, are, the *Ophthalmie*, *Pterygian*, *Panniculus*, and *Hypospasma*; of the which two latter, this is common to the *Cornea Tunicle*, that unto the *Eye-Lids*.

The *Ophthalmie* is an inflammation of the *Adnata Tunicle*, arising from a sharp blood distending the small Veins thereof.

The SIGNS are, redness of the Eyes, a flowing forth of tears, a pain, &c.

The CAUSE is *Blood*, which either alone, or else castigated by other Humors, sliding forth unto the part affected either by an afflux, or else by congestion is dispersed thorow the Veins, and so distendeth them.

The CURE is *Difficult*, if it arise in cold Regions, and in a cold time, because then the Members are more than at other times streightened and confined; if it infest and annoy little Children, because that it continually followeth from a tender and weak Head; if the pain persevere and long abide, because it argueth a matter either corroding, or vehemently distending, or suppurating; if it be by consent from the Membranes of the Brain, and the parts contained within the Skin; if there appear in the Eye small grains of filth, because these signify a slowness of Maturation. It is more easie, if it be by Consent from the external parts; if the tears be more abundant, and more smarting, because it cometh the sooner to an end; if the belly be quick, in regard that the looseness of the belly freeeth the party from it. It is to be accomplished, according to the Method of other Inflammations. It is to be noted in this, that sometimes by Venesection the greatest *Ophthalmies* are wholly taken away within the space of an hour. 2. That Vesicatories applied behind the Ears do very well draw back. For this purpose there is much commended by Hartman the meat of the Herb Rocket in a quilted bag. 3. *Erbines*, (and those not overstrong and violent) are to be administered, if the sick person hath bin wont to evacuate the excrements of the head by the Nostrils. 4. Topicks are to be applied, (but yet not until the end of three whole days) and these are to be actually some that warme, without any the least mordacity or Carroding quality, well cleansed and purified, and corrected by such repellors as are in their own propriety helpful; neither must they be too cool, nor too astringent, neither over dry; and those may presently be put un-

to the forehead, and the neck; and they are to be followed with Anodynes, which (if there be any fear of a greater afflux) are very fitly applied to the eye, from the very beginning. 2. the womens milk is every hour to be changed, lest that after long continuance it contract a certain kind of acrimony from the heat of the eye. 3. Opium and opiate medicaments are by no means to be administered without great and urgent necessity. 4. Great caution must be had, lest that there should be any suppuration in the inward parts. 5. In the diet, wine and the use of baths (in the declination of the disease) may very well and without danger be allowed and permitted unto the sick person. A Cataplasme of the *Crums of wheat bread and a roasted apple, with the breast-milk of a woman, together with a little saffron and sugar of saturn,* is exceedingly commended. And so likewise is the water that is made of the juicy substance of *Craw-fish distilled, two pints thereof, of Rose water one pint, and Crocus metalorum half an ounce, infused altogether:* as also of the waters of the *eyebright, and Fennel, of each alike five ounces, with metalorum one dram;* unto which there may be added a fit proportion of *rosewater.* Among the discussives, *Sarcocol* well washed, and the *true Tutty of the Arabians,* (which drieth without any kind of biting) obtain their place and use.

The *Differences* of the ophthalmy is thre-fold.

I. One is that we call *Taraxis,* or a perturbation, which is known by this, that the eyes only appear to be hotter, with a certain redness in them, and without any great abundance of tears. It *arise*th from external Causes, to wit, 1. the *heat of the Sun, or the fire;* and then the Cataplasme before mentioned may very fitly be applied. 2. from a *pain of the head* contracted from the suns scorching heat; and then likewise the aforelaid Cataplasme hath its place, unless haply general and Universal remedies ought altogether to precede, and take the the first place. 3. from *wind, smoake, and dust;* and the eyes are to be washed with milk luke warme, and sleep to be taken thereupon. 4. from a *blow, or a fall;* and then blood ought immediately to be drawn forth by opening a vein. 5. from the stinging of a *Bee, Wasp, or Hornet;* and then Repellers of the white of an *EGGE,* the breast milk of a woman, &c. are to be imposed.

Another is the *true and genuine ophthalmy,* which proceedeth either from hot, or from cold causes; and to this all that hath been before spoken doth properly and chiefly belong.

Another is that we call *Chemosis,* whenas the eye lids are as it were inverted, and turned the inside outward, (neither can they be closed) and then there appeareth a swelling of something that is white above the black of the eye; and this needeth and requireth the stronger sort of remedies.

II. Another is *Periodical,* which kepeth its intervals; it is familiar unto hot & moist heads; & at length it casteth the eyes into a consumption. Another is that, that *kepeth not its periods.* Another is *Contagious.*

III. Another is *Moist;* of which we have now most chiefly treated.

Another *dry,* in the which there is but a very small flux of tears, and in the night-time the Eye-Lids contract an hardness. It hath its original from a humor that is not much in quantity, but very salt and nitrous. And it is either *with an itching* attending it; (which if tears gently flow forth, it is then called *Pso-rophthalmia;* but if there be no tears at all, and that the eyes are only red, without any swelling, it is then called *Xerophthalmia*) or else *without an itching,* and with a certain hardness of the Eye-lid, and then it is termed *Sclerophthalmia.* The Cure hereof followeth the method of that before mentioned.

Article. II. *Of the Nail, or little wing, the web, and the Hypophagm of the Eye.*

I. *The Nail (or little wing, as they terme it) of the eye, or, as some call it, the arrow, is a little membrane that is nervous, fibrous, and somewhat white, which proceedeth forth from the corners of the eyes (the greater of them especially) and cleave*th fast unto the Adnata tunicle; and is somtimes drawn forth in length even unto the Cornea tunicle; and very often (if it so much increase) covereth and over spreadeth the *Pupilla* or *Bal* of the Eye.

This Affect needeth no SIGNS, since that it is evidently exposed unto the view. It is discerned from the Lachrymal flesh by its white shining brightness.

The CAUSE is Blood, mingled together with thick, viscid and clammy Humors, flowing down from those parts that are contained betwixt the Skul and the Skin, and bringing upon the place a certain kind of Scabbiness or scurfiness, which while the nutritive faculty endeavourereth to render and make equal, it

produceth an increase of the membrane beyond the ordinary course of nature.

The CURE Requireth. I. The *Premising* of the general and *universal remedies*. II. the *extirpation and extirpation of the nail*, after it hath been for a while fomented, either with a decoction, or some temperate distilled water. Among the several sorts of medicaments, there is commended the powder that is made and prepared of *Egg-shells*, and then cast upon the eyes; the *Medicinal stone of Crolius* in the water of roses and Eye bright; the specificke of *Hartman*, of the fish *Lucius* we call it the *Luce* or *Pike*; the same *Hartmans* water of *the whites of Eggs*; and other such like remedies; which if they be sharp and piercing, ought to be quallified and corrected with *Tragacanth*, and the like; and exceeding great Caution must be had, that the tunicle *Cornea* be not touched. III. It requireth *Chyrurgery*; of which you may see further, if you consult Authors upon this very subject. IV. A *Diet* in which there ought to be an abstinence from wine and meats that generate store of vapours.

It is many wayes *Divided*

I. One is that we call *Albicans*, or tending to whiteness; Another there is that *tendeth* to a *blackness*, which is not to be removed by any remedies whatsoever. II. Another *Recent* or new, which may soone and very easily be dispersed, and quite taken away. Another is *Inveterated* and old, unto which if a thickness chance to accrew, and be added thereto, it ought then to be cut out: yet sometimes notwithstanding it sticketh so close and pertinaciously unto the *Adnata* tunicle, that it cannot be taken away thence, no not by the Chirurgeon himselfe without manifest hazard and danger of hurting the eye. III. Another is that which is produced only unto the *Cornea* tunicle, and no further. Another, that is *extended along even unto the very pupilla* or Eye-bal; and this if it be taken away, it indeed wholly freeeth the eye from fluxions; but if a *Cicatrix* or star be left remaining it very much hindereth the sight of the eye. IV. Another is *Cancerous* and *Putrid*, which admitteth of no Cure at all; Another, that is not as the former.

II. The *Pin* or *web* of the Eye is a certain red substance like unto a small piece of cloath, arising from the exuberancy and over great abounding of blood, in the Exterior veins of the Eye.

There is here no need of SIGNS. There appeareth (especially in the superficies of the

tunicle *Adnata*) as it were a fleshy web, with an itching, a pain, an offending of the eyes by the light, the sight obscured, or quite and clean taken away.

The CAUSE is a blood derived unto the eyes, either simple and alone, or mixed, either by the way of fluxion or of congestion; and this either by the external vessels, and then the forehead swelleth a little; or otherwise; by the internal vessels, and then there is a certain pain extending it self even unto the very roots of the Eyes.

The CURE is performed, I. *By the Use of Universals*, or remedies in general. II. *By Assertion*, by those things above mentioned. III. *By Chyrurgery*; touching which those Authors that are extant upon this Subject.

III. The *Hyposphagm*, or *Sugillation* (as they call it) is a blemish or spot, reddish or black and blew, arising from blood poured forth of the veins being opened, and common to the tunicle *Cornea*.

There is no need of SIGNS, forasmuch as the malady or Evil is easily discovered by the very beholding of it.

The CAUSE is whatsoever may open the veins, whether it be External or internal; as shal be further shewn in the differences.

The CURE is *Easy*, in the beginning, It is performed (Univertial or general remedies having gon before) if the afflux be greater than is usual, by *discussives*, at first such as are more gentle, and corrected by astringents; but afterward, those that are stronger and more forcible, and yet withal such as are void of acrimony and tartness, lest that there should more of the blood be enticed and drawn forth unto the part affected.

It is *Divided* three manner of waies.

I. One is from *Causes External*, a blow, clamour, and sounding of trumpets; in which we must presently have recourse unto *Topical remedies*, to wit, the decoction of the flowers of *Melilote*, and of *Roses*, *Fenugreek seed*; Colliry composed of the blood of *Pigeons*, taken out of their wings, two drams thereof; the breast milk of a temperate Woman half an ounce, and *frankincence* one scruple. Another is from *internal Causes*, to wit either great store of blood, (where *Venesectio* must by no means be omitted) or else from the extraordinary great beat thereof; and then the spot or blemish tendeth unto a *Citrine* colour. We must withstand and oppose the inflammation by the white of an Egg wel shaken together; if there

there present any Pus or filthy purulent matter the same is to be lessened by a Collyry composed of the *Mucilage of fenugreek, with fennel water and honey of Roses.*

II. Another is *Recent* and new beginning; in which the blemish is of a red colour. Besides the Topical remedies above mentioned, the *tops of bissop* boyled in ordinary and common water, tyed up in a little bage, and so applied, is of singular use and benefit in discharging the peccant matter. Another is *inveterate* and of long standing; in the which the spot or blemish is black and blew. And for this we usually prescribe (as most proper and convenient) a Collyry composed of the *Juyce of the greater Selandine and Cardus Benidictus, of each halfe an ounce; of the fat of the bird they cal Quaxstula (or Queist) liquified and dissolved, two drams, and of mirrh half a scruple; as also the Root of sigillum Solomonis or Solomons Seal, well shaken together, &c.*

III. Another is, *When blood is cast forth either into the Adnata or the Cornea Tunicle.* And another, *When it is cast forth into both these Tunicles at once, and together;* and then all the *Objects* that the Sick person looketh upon seem to be of a color tending to Redness.

Chap. 5. Of the Diseases of the Tunicle Cornea.

Article. I. Of Crassities, Nebula, and Albugo.

THE Diseases of the Tunicle Cornea, are, Crassities or a certain kind of thicknels, Nebula, (or a little Cloud) Albugo, (or a white spot in the Eye) Pustules or Pusles, Ulcers, Wounds, and Pain.

I. *Crassities* (or thicknels) *Is an extreame drying of the substance thereof,* and therewithal there Joyned a certain Corrugation or wrinkling. *It is known by this, that (as it were) in the superficies thereof there appeareth a little blood, and the sick persons see as through smoak. It ariseth either from the incautelons and catelefs Application of Cold Remedies, and this especially after an Ophthalmy; or else from Gross and thick humors, that insinuate themselves. In the Cure, there is to be commended the Juyce of Selandine pressed forth, and instilled into the Eyes drop by drop.*

II. *Nebula* or the little cloud, as the *Color of the Tunicle Cornea, altered and changed by a subtile Humor flowing forth.* That which is prevalent in this case, is the powder of *Margarites prepared, in the water of Roses and Fenel;* and the *Cataplasm of Plateris, in his second Book and 19. Observation.*

III. *Albugo* or (as they call it) *Lencoma, is a white spot, rendering the Cornea (tunicle) so thick, that there is denied al manner of passage unto the visibl species. It ariseth either from a Cicatrix (or scar) after a wound, or an ulcer; and then the Cure is difficult in those that are ancient; but more easy in children and young people. It is performed, 1. By the applying of emmollients or mollifiers. 2. By absterision, where the water of Rosemary flowers dropped into the eyes, and the fat of the fish Mustela, have their place and use. Or else it procedeth from slegm gathered together betwixt its lapps; and then the Cure is easy. And to this end the purpose excellent good is the colyry that it prepared of Lapis Calaminaris thrice burnt and twice extingwished in wine vinegar, one scruple hereof, Glyrrh, lead burnt and washed, of each half a scruple, of Oriental Saffron five grains, opium eleven grains, of burnt bras four scruples, the decoction of fenugreek one ounce; al these thoroughly beaten together and incorporated upon a marble stone or Porphyry.*

Article. II. Of the Pustules and Ulcers of the tunicle Cornea.

Pustuls are little risings, that are common to the *Adnata* and *Cornea tunicles.* They are known by the very sight in magnitude equalling the grain or seed of a miller, of a black color, of an exact roundness, and in that they exhibit not a white circle in the bottom; by these they are distinguished from the falling forth of the *Uvea* (the fourth Membrane, or thin Skia) of the Eye. They arise from a Humor that is sharp and serous or Wheyish, sitting up the Tunicles. They are Cured the more easily, if they be in the *Adnata Tunicle;* but with more Difficulty, if they be nigh unto the *Pupilla* or *Bal* of the Eye: and not at al by any means possible, if the *Cornea* be broken into the internal part. They are divided in a twofold manner, Like as the *Ophthalmy.* I. Some are with an inflammation, which are Cured like as other inflammations. *Saccharum Saturni* (or, the Sugar of Saturn) with the water

water of Eye bright, is (here) of all Remedies the best and cheifest. *Others* from a waterish Humor, which require Exsiccating and drying Remedies, as for instance, *Tutia Lapis Calaminaris*, &c. II. *Others* are Superficial, called *Epicaumata*, which appear in a darker color. *Others* more deep, under the second or the third film, (called *Encaumata*) which by reason of the whiteness of the *Cornea Tunicle* seem to be the whiter; and are therefore dangerous, because they can and often do eat through the whol *Cornea Tunicle*.

II. *The Ulcers of the Cornea Tunicle arise, sometimes from External, and sometimes from things Internal, or that flow in, or that are heaped up together; And they have various and different names given them, (by which they are sufficiently known and distinguished) according to the variety of Circumstances. That is called Bothrion, that is hollow, narrow, and hard. Koiroma, that which is broader, but not so deep. Argemon, that thacatiling in the External party colored circle of the Eye, and being of somewhat a Red color round about the external part of this circle that is particoloured, but white about the internal part thereof, Comprehendeth likewise within it all things that surround and encompass it. As touching the Cure, it is to be wel observed, that Medicaments are to be applied and putt to the Forehead, and also unto the Temples, (that so the influx may be impeded, and that the said Medicaments ought to be gentle and temperate. The Ophthal-mick Water of Mynsichtus is (here) by some exceedingly extolled.*

Article, III. *Of the Wounds of the Cornea (Tunicle) and the pain of the Eyes.*

The Wounds of the Cornea (in general) require, 1. *Evacuation*, and that more especially by Venesection. 2. *Remission*, (that so the inflammation may be prevented, and hindered, and the pain mitigated) by Cataplasms imposed upon the Eye-Lids alone, (that to both the Eye and the Eye-Lids may be opened. 3. *By Consolidation*. And for this purpose, there is very much commended that part of the white of an Egg which the Germans call *das Tuchen*, and the Italians *Galatura*, wel beaten together; as also the Red Oyl of Saturn. If we consider the Differences, 1. *Sometimes the Cornea alone is wounded; but then again sometimes together with it the Eye-Lids like-*

wise; where care must be taken that they be not glewed together with the Eye. 2. Sometimes the wounds do not penetrate so deep. Sometimes the Cornea, is broken, and then there flows forth a Watery Humor, which likewise happeneth in Ulcers. And then, if the wound be Narrow, it hath in it the less danger: but if the Uvea (Viz. The fourth Membrane, or thin Skin of the Eye) fall forth, it is altogether incurable. The Cure is one and the same with that of a wound and Ulcer of the Eyes.

II. *The pain of the Eyes, charceth unto and befalleth the Eyes, cheifly and especially by Reason of the External Tunicles. It is known by the Relation of the sick party. It ariseth from Causes that Excite and hasten the Solution of Unity. It is Cured by taking away the Causes. It is Mitigated by the Whites of Eggs, the Pap of a roasted Apple with Sugar, Camphire, Saffron, Rose-water, and the Brest-Milk of a Woman. We must (here) beware that we preteribe not the use of any Opiates whatsoever.*

Chap. 6. Of the Diseases of the Uvea.

Article, I. *Of the falling forth of the Uvea, and the Dilatation, Widness and Narrowness of the Pupilla, Viz. The Bal or Apple of the Eye.*

THE Diseases of the Uvea (one of the Tunicles in the Eye) are, *the falling forth of the said Uvea, the Dilatation of the Pupilla, the Narrowing and contracting of the same, as also the Suffusion thereof.*

I. *The Uvea falleth forth, when the Unity of the Cornea is Dissolved, either by wounds, or by Ulcers. It is known, and discerned from Pushtes, from hence, that the part that falleth forth is either black, or Skie-colored, and in the bottom of it exhibiteth a white Incle, (which is from the Lips of the Cornea eaten through) and the Pupilla, or Eye-bal, appeareth as if puld atunder in some one certain part thereof. It is Cured by Medicaments that are Astringent without any asperity; and if it be not removed by these, then it is requisite that we make use of the incision knife. For the Differences see further in Aeginela.*

II. *The Dilatation of the Pupilla, called Mydriasis and Platucoria, is when the Pupilla*

Pupilla is enlarged (above and besides the ordinary course of nature) toward the iris or particoloured circle of the eye. It is known by this, that the sick persons (either by reason of too much of the External light breaking in upon the eyes, or else, in regard that because of the falling of the Sun beames in an oblique manner upon them, (these oblique wayes being weaker than those that are perpendicular they are not able to see and discern so clearly and acutely, when they would look upon any object, they then a little close their eyes, and the one of them being shut, the pupilla of the other cannot be dilated. It ariseth from the Extension and stretching out of the Uvea, (of which this said Pupilla is the hole or inlet) either by reason of external, or else internal causes. For the Cure hereof, it must be sought for in the differences. It is divided in a threefold manner. I. One is native, and such as is contracted from the very birth. Another Adventitious, and happening accidentally. II. Another is from external Causes, as a blow, or a fall from on high, &c. which if it be altogether without any inflammation, is easily and soon cured but not so if it be accompanied with a rupture of the Uvea. Another from Causes internal, which are particularly expressed in the following difference. III. Another is from ficcity or drynes extending the Uvea, (like as we see in skins or hides that are perforated) and this is not to be cured without some difficulty. The best remedy in this case is Goats milk, if the eye be wel washed therewith and as it were drenched therein. Another from humidity; the cure whereof is so much the more easie, if it chance not after an extreame and Vehement pain of the Head. It is performed (universal and general Remedies being first premized) by the drawing forth of blood out of the Temple Veins, and the Veins in the corners of the Eyes, and by the applying of Cupping-Glasses in the hinder part of the Head, and Leeches behind the Eares; and likewise by the Use of Retolving Medicaments (among which salted Water is much commended) that have in them but little of a striction. Another from blasts & blowings, (which happeneth unto Trumpeters) & these flatulencies or windinesses are to be discolled & scattered, as aforesaid, in affects of the like Nature.

III. The straightness or narrowness of the Pupilla (which they term Myosis) is when it is rendered and made narrower than naturally it ought to be. It is known by this, that all objects whatsoever that the sick persons look upon seem bigger than indeed they are; that the

visible species being conveyed in through a straight and narrow inlet, may be and are dilated in that broader space neer unto the Crystalline humor. It ariseth from the contraction of the Uvea. It is Cured, according to the Nature and quality of the differences. It is Divided according to the diversity of the Causes. One is from overmuch humidity, contracting the Uvea from the Circumference towards the Center; For the which, those Medicaments that are exsiccating and drying, (such are Rew and Selandine) are a very fit and proper Remedy. Another is from a defect of the watery humor; and then the Patient will see and discern better in the room that is obscure and dark; because that the visible species are more aptly and speedily Conveyed unto the Crystalline humor. In this case an aliment and supply is to be attracted and drawn unto the part, by applying of milk and sweet water unto the head. Another is from a more scant and spare afflux of the visive spirits unto the said Pupilla.

Article. II. Of a Suffusion.

A Suffusion (otherwise termed Hypochyma) is an obstruction of the Pupilla, binding the sight, and caused by a humor consisting in the eye, and residing in that part thereof.

The SIGNS are divers, according to the quality and Condition of the rise and original, of the augmentation, and of the perfection or Period thereof; and they shal severally and apart be explained in the differences.

The CAUSE is a humor, either sincere and single; or else mingled; whether it be there collected, or transmitted thither by the veines of the tunicles, the Uvea tunicle, or the Nerves. It is collected most especially in those eyes that are great and sticking out (we term them Goggle eyes) in regard that the visive virtue, when it is diffused in a wide space, is the more infirm and weak, and the laxity of the waies or passages affordeth a very facile and easie entrance.

The CURE is difficult, if it chiefly happen from a fever, or some extraordinary vehement pain of the head; if it chance unto yong children or old aged people; and none at all, if the suffusion be black; if the sick person discern not the light. It is wrought (if at all) by the drawing forth of the obstructing matter by purging Phlegmagogues, and especially biera, and the electuary that they call *diacarbannus*; but before these we may premise and admitt

nificet

nister preparatives. II. By *revulsion* of the same matter by Cupping-Glasses, Vesicatories, &c. III. By a *discussion* of the said matter by Topicks mingled with Emollints or mollifiers, and the clearing and cleansing of the eyes. And here (for this purpose) there is commended the water called *aqua foelis*, the remedy of *Bovius*, formed of the gal of a Cock, half an ounce, the blood of a mouce three drams and a half, and so made up (like unto a Colliry) with the breast-milke of a woman: or else water of mans dung, known by the name of *aqua stercoreis humani Elambicata*, with the gal of a Weasel, and likewise of a hare, *saccharo caudi rosato*, and *margarites prepared*. IV. By Chirurgical operation; of which we are (for further satisfaction in this point) to consult those Authors that have treated at large upon this subject.

The Differences of a Suffusion are Various.

I. In regard of its Situation; 1. One is in the Center of the *Pupilla*, which Representeth the Objects as though they came and passed through the Windows; and this ought not by any means to be attempted by the needles point, lest that the whol *Pupilla* be filled with the peccant Humor flowing thereunto. 2. Another resideth between the *Vvea* and the *Cornea Tunicle*; and then the *Pupilla* is evidently seen to be extremely obscured and darkned; and the *Pupilla* is of necessity dilated by Reason of the Humor that distendeth it. 3. Another resideth betwixt the *Vvea* and the *Crystalline humor*; and then the opposite unto the former do manifestly appear. 4. Another is seated in a deeper place; and then the *Pupilla* is very narrow and much streightned. Another is situate in a place less profound and deep, and then the said *Pupilla* is larger and wider.

II. They differ in regard of the degrees; for One is but new beginning, and then there fly to and again before the Eyes as it were Gnats or some certain other dark and dim appearances. Another is Augmented; and then the color of the *Pupilla* appeareth like unto that we call sea-green; or else it is like unto the Air when ful of little Clouds. Another is Perfect; in which the sick person discerneth nothing at all; and then the *Pupilla* appeareth to be of a white color.

III. They differ in regard of their Cause; 1. One is from a thin matter and such as is Fluxile (as for most part it is wont to be in

the beginning) and then, if there be present a Plethory, we may prescribe Venesection, and cause a Vein to be opened. Another is thick, clammy, & tenaceous and then we ought to abstain from bloodletting. 2. Another resembleth the clear & pure air; as also it resembleth silver, Playster or Parget, and Margarites; and this kind leaveth some Hopes of a Cure. Another is black, which is by no means to be Cured, no not by the Needle. Another is Green; which is likewise altogether incurable.

IV. Another is that which is truly and properly so called; (and of this all that hath hitherto been said upon this subject ought to be understood;) which seizeth only upon one of the Eyes; or else if both, yet not together, nor a like, and whose Symptoms are constant and continual. Another is Bastard and Spurious, which carryeth it self quite contrary unto the former; and ariseth from a Vapour ascending from the inferiour parts; and is wholly taken away, when the Affect is removed.

Chap. 7. Of what is amiss in the Humors of the Eyes.

THE Humors that (together with the Tunicle) constitute the Eyes are in number three, to wit, the Watery, the Chrystalline, and the Glassie Humor.

I. The Faults or things amiss in the Watery are especially four. I. The Diminution thereof, by reason of heat, dryness overmuch Evacuation; which in regard that it is conjoined with the dryness of the whol body, is there not to be Cured without much difficulty. II. Effusion, when it is poured out, which happeneth in the Rupture of the *Cornea*; and then a wound or Ulcer went before; the *Cornea Tunicle* lieth underneath. This Humor is sometimes bred again of its own accord. III. A Crassitudo or thicknes, arising from the admixture of thick Humors or Vapors; and then the Humor appeareth not to be altogether so clear as it is wont; and certain resemblances or babies (as we term them) fly up and down before the Eyes; &c. IV. Obscuratation, and another kind of Color, by Reason of the Humors that are therewith mingled. These things may be well known at the first sight and by the very view.

II. Those things that are amiss in the *Crystalline Humor* are especially these. I. *Glaucoma*, when this Humor is turned into a Grey color. It is known by this, that about the *Pupilla*

Pupilla there appeareth a notable & manifest whiteness somewhat deeply seated, and all things are seen as it were through smoke and little clouds. It ariseth from exsiccation, which happeneth either by Reason of Age, or else from some other Cause. II. *Solidity and Obscurity*, which therefore needeth a greater illumination; from whence proceedeth that we call *Nuclalopia*, or a Nocturnal blindness; with the which such as are affected, see indifferently well in the day time, but more obscurely and dimly after sunset, and in the night time nothing at all. III. *The Scituation changed*, which is wont to happen many waies. 1. *Upwards or downwards*, from whence the incruciation (as they call it) or Crossing of the Opticks is dissolved; or else the Axes of the Pyramids thereof are fixed in a double plane, and so all things appeare double, 2. *At the sides*, and then things appear more on the right side, or on the left, than indeed they are. 3. *Towards the middle and the Center*; from whence it is that those things that are nigh at hand are rightly seen, but things more remote are not distinctly enough discerned. 4. *Beyond the middle and Center*, toward the Optick; and then those things that they desire to discern, they are constrained of necessity to lay them close to their Eyes. *Towards the Pupilla* or Bal of the Eye; and then they rightly discern those things that are remote and at a distance from the Eyes.

III. Those things that are amiss in the *Vitreous* or *Glassie Humor* are, I. *The Augmentation* thereof, by which not only the *Pupilla* is the more dilated, but likewise the *CrySTALLINE Humor* is obscured, and hath as it were a mist and shadow, cast before it, and the *Spirits* also much dulled and blunted. II. *Diminution*; from whence the *Tunicles* are wrinkled up together, the *Pupilla* contracted, and falling down above the *CrySTALLINE Humor* and abbreviating the space betwixt it and the *Tunicles* (in the which the external splendours meet together) produceth the very like affect as in those that wink with one or both Eyes that they may the better behold the bright body of the Sun. III. *A Crassitude*, or thickness, which ariseth either from the mingling together therewith of an humor, or else from the admixture of some other adventitious substance.

Chap. 8. Of those Diseases that infest and annoy the Globe of the Eye.

Those Diseases that infest and affect the Globe of the Eye, are, *Atrophy*, *Procidency* or standing out, and *Strabismus* or Squinteyedness; unto the which may be added out of the Symptoms, the *Debility* or weakness of the sight, and stark blindness.

I. *Atrophy* is then, when the parts of the Eyes consume and wast away. It ariseth most especially from excessive Evacuation, and over great exsiccation. It is Cured, by those Medicaments that humectate and moysten (and chiefly the Breast-Milk of a Woman) layed therein.

II. *Procidency*, when the Eye either stands out of its Orb in an unusual and unbecoming manner; or otherwise falleth out so (at least) that it cannot be covered with the Eye-Lids. It ariseth from Causes as well External (a blow blowing of Trumpets, strangling, Hard Labour in Child bearing, &c.) as internal, to wit, the resolution of the Muscles and Nerves, a Tumor thrusting forth the Eye, &c. In the Cure we must have regard. 1. Unto the putting back of the Eye into its proper seat, or if that may not be done, then wholly to take it away. 2. Unto the Detaining and keeping of the same in its place or seat, by Fomentations made of Astringents, to wit, *Roses*, *Pomegranate flowers*, and *Acacia*. Neither must we forget to let blood; and the inflammation is likewise to be repelled and driven back. If Resolution be the cause thereof, then *Apophlegmatisms* are very available.

III. *Strabismus* is then, when the *Pupilla* or bal of the Eye declineth from the middest, so that it appeareth more in one part of the Eye than in the other. It ariseth, either from an ill frame and composition at the first from the very Womb, and then it is not by any means to be Cured: or else it chanceth from an ill custom, as it is usually to be seen in infants: and in this case *Vizards* or *Masks* are to be put upon the Face, having in them a place and holes made fit for the Eyes to look forth at, that so by them the visive raies may be sent forth. Or else from a *Convulsion* or *Resolution* of the *Muscles*, and then some Disease went not long before,

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IV. The *Weakness of the sight, and Blindness*; they differ at leastwise in the greatness of the *Causes*. It *ariseth* either from the fault of the *Brain* that maketh and yieldeth not a sufficient supply of the *Animal spirits* (from whence likewise the rest of the senses are most commonly affected) or else from some thing amiss in the *Animal spirits* themselves, which ought to be bright and shining, thin, and good store of them. And these are to be corroborated with those Medicaments usually termed *Oxydorecticks*; among which there are the water of *Rosemary* with *Sal Gem*, the water of the distillation of *Junipers*, *Nutmeg*, *Myrobalans* those of them called *Chebula*, &c. or else from some default in the *Optick nerves*, which are either too much straitened, and *Narrow*, (from whence proceedeth that we term *Gutta Serena*, (in the which there is not any thing at all to be taken notice of as amiss in the *Eyes*, unless it be that the *Pupilla* appeareth blacker and larger :) or else they are broken, or *writted together*. Or else, lastly, from some fault in the *Humors* and *Tunicles*; of which enough hath been spoken in what went before.



Title, IV. Of the Diseases of the Ears:

Hitherto hath been spoken of the Diseases and things amiss in the *Eyes*; in the next place, the Diseases of the *Ears* are, an *Inflammation*, an *Ulcer*, and *Worms*.

I. An *Inflammation*, or *Tumor*, is known from the most vehement bearing pain in the part affected, and by a redness of color extending it self even as far as the *Cheeks* and the *Temples*: there accrew likewise and Joyn herewith a *Feaver*, dotings, and sometimes also *Convulsion fits*. It *ariseth* from *Blood* that is thin and *Cholerick*, fallen forth of the small *Veins* of the *Brain* into the *Membranes* of the *Ear*. The *Cure* is doubtful, by Reason of the greatness and intensiveness of the Symptoms, and especially in such as are young; which yet notwithstanding (if they live beyond the seventh day) are wont to escape it. And likewise in *Infants* and little *Children*, which by reason of the quickness of their sense are less able to sustain and undergo the sharpness

of the pain. It is accomplished, like as in the Cure of other inflammations, only by the way let these things be well observed; 1. That the *Cephalick Vein* is to be opened, for *Revulsions* sake, 2. That we must not easily be drawn to make use of *Repellers*; but if at any time we do chance to make use of them, they are then to be mingled with those things that moderate and assuage pain, such as are *Womens Breast-milk*, and other the like. 3. That in furthering and promoting of the *Suppuration*, there ought to be provided a ready and expedite Composition of *Figs* boyled in *Milk*, and well mashed and beaten together with *Hogs Grease*. 4. That for the *Rupture*, we must administer (as that that in this is much approved of) the *Juyce of a small Frog*, with a fourth part of the *Breast-Milk of a Woman*. *Leeches* are here successfully to be placed and applied behind the *Ears*. It is divided into an *Inflammation profound* and deep, in which (by Reason of the Compression of the greater *Arteries*) the beating is to much the greater; and the pain (because of the near neighboured of the *Brain*) the more Vehement; and which (by Reason that *Nerve* called *Auditorius* is affected) hath very much danger in it; and that which is less *Profound* and deep, which is in all Particulars apposite to the former.

II. An *Ulcer*, which is known by the filth and corrupt matter and also the blood that issueth forth. It *ariseth* from those things that either pour forth *Pus* or matter, or else such as by their acrimony and tartness are of a Corroding Nature. It is Cured like as other *Ulcers*. It is to be washed with warm *Wine*, in which *Roses* and *Ivy Leaves* have been boyled. It is to be well and thoroughly cleansed either with *Wine* wherein betony hath been made scalding hot, or else with honeyed *Water*, in which the *Root of white Hellebor* hath been sodden, or at least, hath lain until the said water be teething hot. It is divided sundry waies. 1. One is from an *impostum* broken after the *Inflammation*. Another is from biting and corroding *Humors* that by their acrimony exulcerate the *Ear*. Another from the filth and impurities of the *Ears* over long kept in and detained. Another from some sharp and tart liquor from without slipt into the *Ear*, and which thereby gnawing and eating causeth an *Ulcer*; in the Cure whereof we are to have respect unto their proper *Causes*. 2. Another is *Recent*, and but new begun; in which (the pain of the *Head*, and the perturbation of the senses

senses ceasing at and after the flowing forth of the rotten filth and Corruption) there is then some good Hope of a Cure appearing forth. Another is inveterate, and such as very easily degenerateth into a Fistula, and contracteth a kind of Scurf and crustiness. III. Another is Fistulous, which is to be known by the oldness and long continuance of the Ulcer, the Virulency of the filth, and the Callosity or hard insensible thickness of the Flesh; for which the Wine wherein Frankincense or white Hellebor have been boyled, is exceeding good and applyable. Another not so as the former. IV. Sometimes a stinking filth floweth forth at the Ears, upon the breaking of an impostumation in the brain; and then, there first of all issueth out great store of the said filth, but then afterward it is sent forth by some and some at a time, until that at length all of it be consumed and wasted; and there went likewise before signs of the Inflammation of the Brain; and hereunto the Care ought to look, as mainly respecting it. Sometimes again (without any Apoptem) there is sent forth a certain filth that is generated and bred in its Vems; and then, after it hath been once exhausted it is again and again heaped up as before; and here head purgations are exceeding profitable and useful. The Urin of an Ass or of a young Child, in which the shavings of the wood Guaiacum have lain a good while soaking, doth much good if conveyed therinto. V. Sometimes, the flowing of the said filth being ceased, all the pain is vanished and gone. Sometimes again (there being some certain filth and clods as it were of Corrupt blood left deep in the bottom of the Ear) the pain still remaineth; & then we ought thoroughly to cleanse the impure place with honyed water together with the Gal of a Bul, the Oyl of bitter Almonds, Vinegar well warmed with the best Honey, &c. And this especially in case there be Clods of blood.

III. Worms, which discover themselves by the corroding pain, restlessness, and other such like conjectural Symptoms. How these Worms ought to be drawn forth, see further in the Practitioners. They are killed by the Oyntment of Capons Grease, and the Oyl of the Hazel Nut or Filberds, mingled with two grains of Mercurius Dulcis, and to put into the Office of the Ears with Silk: they are killed with the Decoction of Hemp into the part affected.

IV. Water fallen into the Ear is again drawn forth by insuling Oyl therinto.



Title, V. Of the Symptoms of the Ears.

Chap. I. Of Pain, and Deafness.

THE Symptoms of the Ears, are, Pain, Deafness, Tingling, and a Hardness of bearing, together with a mistaking therein.

The Pain needeth no signs: in Infants if the part be but touched, it is then discovered by the moan and complaint that is made. It ariseth from Causes distending the Membranes encompassing about the Cavity of the Ear, and endued with an exquisite sense. The Cure hereof is somewhat doubtful, if it infest and annoy those that are young and tender; if in those that are declining in yeers it be accompanied with frequent Relapses; and if it abide and keep its residence in the deeper part or bottom of the Ear. It is performed by Anodynes, and if it be Vehement and intollerable, by those Medicaments that stupefie. Among these are the green Leaves of Tobacco moystened either with a specificall and proper Water, or at least with Rue Water, and so applied, together with three grains of Opiate Laudanum. Those things that are applied externally ought to be gentle, lest that the pain be exasperated and Augmented.

The Differences are taken especially from the Causes.

I. One there is from Externals, as to instance, from somewhat fallen therinto from a Wound, &c. which are all to be known by the Relation of the sick person. Another there is from Causes internal; to wit, a Distemper either without or with matter; and this either cold, (in which the Juice of Onions with some kind of liquor is very helpful) or elle hot, in which the Breast-Milk of a Woman together with the Juices of cooling Herbs do much avail and profite: a Wind, for the which those things are useful and proper, which in the following discourse touching the noise and sound in the Ears, remain further to be spoken of: from an Inflammation, of which enough hath been above said: or lastly, from an Ulcer and corrupt matter, of which like-

wise sufficiently in the same place.

Deafness is an Abolition of the Hearing, differing from that we call *Barucoia*, or *Hypocophosis*, (in the which a man not without much difficulty heareth and perceiveth sounds although at a Just and meet distance) only in regard of the greatnels and intensiveness of the Cause. It *arise*th from the default of those things that concur to the constitution and perfection of the Hearing, and 1. Of the *Brain*, in that it either produceth no Animal Spirits, or else doth not transmit them, by Reason of some peculiar Disease. II. Of the *Auditory Nerve*, which hath no passage or conveyance for the said spirits, either by Reason of some thing amiss in its very frame and formation; (and hence for the most part those that are deaf are likewise dumb; and this kind of Deafness is altogether incurable) or else by means of some obstruction, thicknes, &c. III. Of the *Animal Spirit* it self, which either is not at all generated, by reason of some extraordinary great distemper of the Brain; or else is abolished, by reason of the extreame straightnes and narrowness of the passages: or otherwise it passeth not through, by Reason of something amiss in the Nerve: or else it is but very little, and that likewise over thick and impure, by Reason of the Ambient Air, or from other Cause. IV. Of the *Inbred air*; which either faileth, (to wit, by Reason of a wound, or an Ulcer, &c.) and passeth forth; dissipated and Scattered by noises and sounds, the contusion of the Head, or a Vehement affect of the Brain; not restored and made good again, by Reason of a fayling and want of Nourishment: or else it is impure, either from some matter, sent thither from the brain, or from elsewhere. V. Of the *Auditory Passage*, which either is formed amiss. Or else stopped, and that either but in part, and then there is only a diminution of the Hearing; or else wholly and altogether, and hence it is that the external sound is not at all perceived, but then there is another new one produced by the Air left remayning there; or else from things External falling or sent thereinto; or otherwise from internal Humors, filthines and impurities, Ulcers, &c. Or else it is condensed and thickned, by an Inflammation, some smal Tumor or rising, &c. Or else, lastly compressed and thrust together, by Reason of some fracture of the Bones. VI. Of the *Tympanum* or drum, which may be broken, loosened, rendered thicker or drier, extended, and otherwise infested by an inflammation arising

about or next unto it. VII. Of the *three little Bones*, which either are not rightly formed, or else are moved out of their place. And yet notwithstanding most frequently from a *Pituitous* and *Flegmatick* or *Cholerick* humor, which happeneth in acute and violent Feavers; and sometimes it discovereth that the matter is carryed forth unto the exterior parts. In the *Cure* hereof we must see and look well to it, that the Medicaments be applied Warm; that there be no new remedies laid to, until after that all the filth and *Impurities* be thoroughly *cleansed* and wiped away; that there be never more than three drops conveyed in at once; that we be not over forward in tampering with those things that are *Viscous* and *Clammy*; and the sick person lie upon that *Ear* that is sound and well: and lastly, that there be care taken of the Head. There are here commended, the distilled Water of *Carduus Benedictus*, the Leaves thereof being twice infused in the Glass Vessel; the Juice of an Onyon well soaked in the spirit of Wine, and then roasted under the Embers; the Juice that is pressed forth of *Anis Eggs*, or the distilled Water of the same; the *Gal* of an *Hare* with a like proportion of Virgin Honey, and such like; of all which you may see further in *Petrus*, and *Hartmannus*.

Chap. 2. Of the Noise or Ringing of the Ears, and thicknes of Hearing.

THis *Tinnitus* or *Ringing noise* is Defined to be a *Preternatural sound* in the *Ears*, made and perceived in the instrument of hearing, or else in the *Cavity* of the *Head bone*, arising from *Vapors*, first shut up therein, and then moved.

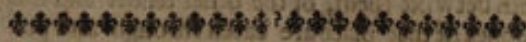
In this Affect there is no need at all of *Signs*.

The *CAUSE* is conjectured to be that which they term *Pneuma Physodes*, as it preternaturally moveth up and down the inbred Air. Now this indeed *arise*th, 1. Either of it self, or otherwise by the Consent and agreement of other parts, to wit, the Spleen, the Liver, the Womb, the Stomach, &c. And then there are present certain signs of those parts affected. 2. Or else from *External Causes* exciting and raising up Vapors, to wit, the extreame cold or over great heat of the Air, overmuch

overmuch feeding, and fulness either of food or Wine, from whence Crudities are heaped up together in the Head; from the north wind blowing immediately after the South wind, which is very easily removed; from frequent smiting upon the Head and Temples; which is very difficultly Cured, in regard that (the Humors by Reason of the pain flowing together unto the Organs of hearing) it is wont to turn into a deafness. Or else from *Internal Causes* that tend forth the very same; and this 1. By *Breaths* and blasts that are *overbeating*, and filling forth that little Artery that runneth under the Ear; and then the Disease is wont to be of long continuance: and here we are to deal with those Remedies (whether Decoctions or Juyces) that both cool and moisten. *Opium* may likewise in this case be administered, but then it must be with very great caution. 2. From a *Humor Flegmatick* and cold, and then the Malady began by little and little, & from less to greater; and returneth likewise at some certain seasons and by intervals; the noise or sound is clearer and more distinct than ordinary; and lastly, there were some Causes of the same that went before. In the *Curing* hereof (general Remedies being evermore premized, and taking the first place) we are to act and operate by such things as attenuate and discuss, (which ought to be applied in the morning, and before Supper;) as namely, the Vapor of *Vinegar* together with an *Oxe Gall*; the Secret Remedy that is Compounded of those little *Worms* that lie betwixt the wood and the bark of the *Oak Tree*, and the Oyl of *Rue*, and that Oyl likewise known by the name of *Olium Castinum*; (see further hereof in *Petræus*;) the prepared *Gal* of the fish *Lucius*, or the *Pike*, (as we commonly call it) and the *Fume* or smoak of the Herb *Mercury*. 3. From a *Cholerick Humor*, and then it chanceeth in Feavers; it also seizeth the Patient either Symptomatically or Critically; and sometimes it is dissolved and vanisheth of its own accord; and sometimes again not until after a *Cholerick flux* of the Belly. 4. From filth and *Impurities*, which ought to be washed forth with the distilled Urin of an *Ass* or a little *Child*, in the which there hath been first well soaked a fit quantity of the *Wood Guaiacum*, a due proportion of *Castoreum*, and a little bundle of wild mints. 5. From an *Apostume*, which discovereth it self by its own signs.

Thicknes, as we term it, or hardness of *Hearing*, (otherwise called *Paracousis*) is

then, *When the hearing perceiveth its objects very confusedly*. And this is Caused, either by an Ulcer not rightly cleaned and consolidated, when as the Windy Vapor being driven through the Arteries by its impetuous violence offendeth the hearing, or else in Feavers, Vapors being lifted up into the Head, and then poured forth into the Ears. Or else without any Feaver, when there is a hot Evaporation continually and without any intermission exhaled and drawn up into the Head from the impure Entrails.



Title, VI. Of the Diseases and Symptoms of the Nostrils.

Chap. I. Of the Ulcers of the Nostrils, as also of *Ozena*, and *Polypus*.

THE Affects of the Nostrils, are, *Ulcers*, *Ozena*, *Polypus*, the *Hemorrhage*, *burnt of the Smelling*, *Stiffing* thereof by a *Rheum* falling down from the Head therein-to, and *Sternutation* or *Sneezing*.

I. The *Ulcers of the Nostrils* happen sometimes from a blow, a *Contusion*, a fall, a wound, and other Causes that are evident, and sometimes from the *Accrimony* of those things that pass by them, as *Salt Flegm*, &c. They are known, divided, and Cured, like as are other Ulcers, accordingly as we have shewn in the first Book. The principle *Difference* is that whereby they are divided into *Ulcers Recent* and newly begun, and those that are *Old*, as having been of a long continuance. *Recent* Ulcers are known from hence; that they very frequently issue forth a small quantity of blood, and that more especially when they are hard touched upon, and thereby Irritated; and that the Nostrils are by this oftentimes moistened: and that if they be suffered and let alone; they are then overgrown and covered over with a dry scurf and crustiness and that most usually of a black color, which sometimes falleth off upon the strong and Violent cleansing of the Nostrils by blowing of them.

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II. That that is Old and inveterate, and now become a putrid ulcer, is called *Ozena*. It is known from hence, that from it there falleth off a more and filthy crustiness, and likewise that there issueth therefrom a kind of stotty filth, of a very ill and offensive savour; insomuch that then the sick person is himselfe offended with the stench thereof, and is likewise very noysom and offensive unto all those that are neer about him by the contagion of a foul and stinking breath; and that, if the mallady be of long standing, the wings (as we call them) of the nostrils, or that that standeth betwixt them, or the other tender and soft bones of that place are eaten through and putrefied; and the palate also being eaten through is oftentimes perforated; and this especially chanceth, if it hath the resemblance of a Canker, or be contracted and caused by the venereal and foul disease. It hath its original either from externals, to wit, suffumigations from Mercury and Cinaber inconsiderately administered: or else from internals, to wit, sharp and corroding humors, (and which happeneth in the french pox) such as are extremely malignant. It is Cured, I. By the administering of Universal or general Remedies, that to new affluxes may be turned away from the head. II. By the Evacuation of the Head by Gargarismes, Masticatories, &c. and the strengthening thereof by external and internal Cephalicks. III. By the, 1. Deterision or wiping and cleansing of the ulcer, either by the Juices of Milfoil, Horeboud, Betony, with honey of Roses; or by Alum water; or by the green water of Hartman, before which the mollyfying and suppling of the Crust by the vapours of emollient herbs ought to be premized, and first made trial of. 2. by the Excicication and drying of the said ulcer by the vapour of the refuse and drofs of fire-hot iron be sprinkled with red wine; by the suffumigation of orpiment (commonly called in the shops Auripigmentum) Cinnabar, Benzoin, styrax Callamite, and Cloves, all together thoroughly mingled one with the other, the nostrils being first stop't at their roots, lest that otherwise the brain should chance to be smiten and hurt. 3. By Consolidation, with the Trochisques of Rondeletius, &c.

III. Polipus is a fleshy excrescence in the Nostrils, hanging thereat by certain thin and smal Roots or strings, and now one while hanging before out of the nostrils, and then as soon again descending unto the Palate,

It is known by this, that this said flesh is

loose, thin, soft, and of a various color that at full of the moon it groweth exceedingly, and about the change or new moon it becomes altogether as flabby and smalin appearance, &c. It hath its Rise from viscid and Clamy humors; and chiefly from slegm mingled with the blood, which falling down from out of the brain unto the exulcerated nostrils sticks fast in the Ulcers. The Cure is by all means to be hastened, lest that it turn into the Cancer. It is accomplished, either by Chirurgery, or by cutting it off; of which see further in the Practical Authors. Or else by Pharmaceuticks or medicinal remedies; and among them (universal and general medicaments being first premised) about the new of the moon; there are to be administered, either the oyl of vitriol uncorrected dropt into wooll, and (after the flesh shal have been scartified) so applied unto the part affected; or else tincts of the Gentian Root, by the prescript of Hartman or Foel his liniments. It is divided after a twofold manner. I. One is soft and itchy, which being void of all pain is the more easily and the sooner cured. Another inclining somewhat unto a Reddish color, which is more difficult in the curing. Another Livid or black and blewish, which refuseth by any means to be cured, and soon degenerateth into a cancer. In this affect there are commended the yolks of new laid eggs beaten together in a leaden mortar even unto a blackness, and then made up into the form of an unguent, with one scruple of Camphire. Another hard, in which Emollients in the form of a fomentation ought to be premized. II. Another is profound and deep, which in regard that it is neerer unto the brain, is therefore withal the more dangerous. Another such as is to be discerned by the eyes, and hath its existence and being somewhat more outwardly.

Chap. 2. Of the Hemorrhage, or Bleeding of the Nostrils.

The Hemorrhage is an immoderate excretion (and in the whole kind thereof besides and above the course of nature) of the blood by the veins of the nose, the said veins being divided, rarefied, or opened.

The thing we are now treating of is to be understood of that hamorrhage that is Symptomatical, (and not of that which is merely Critical) which is caused in Feavers by the strength and vigor of nature, with signs foregoing of concoction,

coction, and a Crisis on that day the Judgment is to be made; and which dischargeth and terminateth the disease.

The **SIGNES** of this Affect are of themselves sufficiently manifest. It is foreknown by that *Anarropia* (as they term it) or tending upwards of the humors unto the superior parts; the which is signified by the pain of the head and neck, the heaviness of the temples, the dimness of the Eyes, the extension or stretching forth of the *Hypochondrium*, involuntary tears, difficulty of breathing, &c.

The **CAUSES** are, whatsoever it be that can open, divide, or rarefie the veins of the nose; of al which we shal make mention in the differences.

The **CURE** is difficult if it be so immoderate and inmeasurable, that in choleric bodies (the Choller inflaming and burning the blood) the face becometh of a Citron or orange color; in Flegmatick bodies, (the flegm being multiplied; of a leaden color) and in melancholly bodies, of a black and dusky color; and if it flow forth to the quantity of four pints therof; if it befall such as are Pilegmatick and melancholly, in regard that they are more cold thereby, than are the sanguine or Chollerick; if it affect those that are of an high and red color with a certain kind of pain in the head; if it doth not terminate and put an end to that disease wherein it happeneth, and that a chilnes and stiffness follow thereupon; because that the body being exhausted of spirits, is extremely cooled and chilled, and by this means breedeth diseases that last and continue a long while. It is not at al to be attempted in those persons that in a burning Fever are afflicted with pains in the head, together with aches in the neck, and the whole body; and where there is present a weaknes with a kind of trembling; in regard that this putteth an end unto the disease; in those whole monthly Courses fail them; in those that are afflicted either with deafness, or the distortion of the back bone and a difficulty of breathing, or else with a strong pain in the inferior parts, al other things being thereunto answerable and correspondent. It is very doubtful, if in the affects of the Liver it flow from out of the left nostril, and in the affects of the spleen out of the right nostril; and especially if it be accompanied with a sweating of the Breast or head; if it happen to those that are Feaverish, and that thereupon when they begin to Recover the belly is humedated, and becommeth overmuch moystned in regard that the natural innate heat being

debilitated, a dropsie is very likely to follow thereupon; if it happen to be attended with weake, faint, and (as we cal them) cold sweats, and therewithal a kind of chilnes, because that hereby is signified and shown an extreame and overgreat dissollution and subversion of the Spirits; if in an acute disease it hath together with it joynd a quick and sudden motion of the eyes, a turbulent and troublefom sleep, & frequent watchings or want of due sleep; if in acute and burning Feavers, on the fourth day, there issue forth drop by drop a thick, gross, and black blood, together with other Symptoms because this argueth & evidenceth the imbecility or weaknes of nature; and lastly if such a bleeding chance to be in diseases of long continuance. It is wrought and accomplished, I. By *Revulsion*, by opening of the median vein (provided that the said venesection be moderate, and as often as there shal be cause, Repeated) on that side the nostril is of, out of which the said blood floweth; as also by cupping-glasses applied unto the hypochondria, if the blood be not naught, by Frictions, &c. II. By those Medicaments that stanch and stop the Hemorrhage or bleeding flux; and those either such as are Cooling, or astringent and binding, or of an agglutinating Nature; or else lastly, such as act and operate by a secret and occult quallity; and these aforesaid medicaments either to be outwardly applied, or else drunk in and taken down inwardly. In the number of those Remedies that are internal and to be taken into the body, the chief (that we know of) are beleevd to be these, *Spermiola compositum* (or the composition of frogs) mentioned and prescribed by *Crollius*; three or foure grains hereof to be administered in the water of the herb *shepards pouch*; *Crocus Martis*, with the Juyce of Quinces, and some few grains of Opiate Laudanum; the Syrup of Coralls of Quercetan, in a Chalybeat water; the Extract of *Crocus Martis*, three grains therof with plantane water; the sperm or seed of frog, collected in the spring time, dryed, and then drunk with wine. Among the External Remedies, the unguent of *Quercetane*, compounded and made of *Crocus Martis* beaten into a most smal powder, and *Crocus Veneris*, of each two ounces, these well mingled together with the oyl commonly known by the name of *Oleum Vici Pomarum Symplicium*; the water of the sperm of Frog, with a little Champhyre and sugar of Saturn, put round about the neck; *Argilla furnacea*, that is to say, Clay baked in an Oven, and well mingled

mingled together with strong vinegar, like unto a pulvise; and applied after the same manner; *Asses dung*, or *swines dung* dissolved in Rose vinegar, and then put up into the nostrils; the shavings or Fragments of *Fungus Betulinus* (the mushroom or toad stool of the Beech tree) the Root of white *Succory*, dig'd up about St. James tide, at noon day (when the sun is at sul south) and chewed betwixt the teeth. As for the *Magnetical Curing* hereof, by Vitriol, see further in *Beccerus* in his *Medicus Mycrocosmus*, in the Chap. of the blood, &c.

The Hemorrhage is divided in a threefold manner; from the *Cauls*, from the blood, and from the places from whence the said proceedeth.

I. One is from that we call *Anastomosis* (or an opening of the orifices of the veins) which either is caused by the abundance of blood; (and then the face is red, the veins strut and are distended, and a full feeding went before: and here venesection hath its place; the head is by no means to be washed or so much as wet with cold water, lest that the blood being there detained, something that is worse follow upon it; neither is there any linen cloth to be wet in cold water, and at the first beginning of it to be cast about the neck, lest that the ways and passages between the brain and the heart should by this means be shut up) or else it is caused by the acrimony of the blood, and the thinness thereof; (and then there ready at hand signs of a *Cacochymy*) and in this case we are to do the work with those things that incrassate and thicken, as *Bole armonick*, *Dragons blood* (in the shops termed *Sanguis draconis*) and such like.) Or else it is caused by the irritation of the faculty, (and then the very same things as before, are present and ready at hand) or else by the weakness of the said faculty; and then there is blood issuing forth by intervals, but it is not much; and some disease weakening the liver went before; and therefore the Cure ought likewise to be profected with special regard had unto the same.

Another is from a *diarresis* (as we term it) or a division of the veins, by some sharp corroding humor, and like by other means; and then the blood issueth forth in a far greater abundance; or there went before some violent Cause; or else lastly there are present certain signs of a *Cholerick Cacochymy*.

Another is from that we call *diapedesis* (or as we may to term it, a passing through by leaping) and then the blood that issueth forth is

but very little, &c. See more hereof in the first Book.

II. One is of the *Arterial blood*, which is hot, somewhat red, subtile, leaping forth with a froth, and with violence. Another is of the *vein blood*, and this is Thicker and Blacker.

III. One is of blood issuing and passing forth out of the veins of the Brain; and then there went before a pain of the head; and the flux is not easily stanch'd. Another is of the same blood leaping or starting out of the nostril veins; and then the contrary of what was said touching the former happeneth and appeareth.

Chap. 3. Of the Hindering and Hurting of the Smel, Gravedo, (or Stuffing) and Sternutation (Or Sneezing.

The principal hurt of the sense of smelling, is the abolition, or the diminution thereof, which differ only in degrees, and in the greatness of their Causes. And this is caused, 1. Either from a distemper of the brain, which either possesseth the fore part thereof, (and then the Taste likewise by reason of the branches of the third pair of nerves of the brain, Forming the tongue, is abolished; the voice is loud and shrill, and no way to be found fault with; the Cure here, is to have an especial regard unto the distemper) or else it possesseth and resideth in the process of those nerves that constitute and frame the organ of the smelling; and then there is no hurt at all to be perceived in the brain or in the other senses. Or else it is caused by the narrowness and streightness, and that too either of the Brain, (and then there is present and sensibly to be felt a heaviness in the head; and here we may operate by erethics, and yet not toomany of them neither; and here likewise sternutatories are exceeding useful and profitable) or otherwise of the Processes of the brain, or of the nose within, and the *Ethmoid Bone*, and then the voice and respiration are vitiated, and the wonted excrements restrained and kept in. The smelling is sometimes totally abolished, if the Phlegm by heat be baked and hardened at the holes and enterances of the aforesaid bone, which chanceth unto such as being troubled with the pose or distillation called *coriza*, heedlessly and without any consideration go unto baths. In these cases that that cheifly deserveth

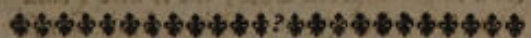
deserveth commendation, is, the Root of *Gentian* fitly put up into the nostrils; *Castoreum* well soaked in vinegar, and afterwards sweetned; the Oyl of *Nightshade*, the *Errhin* of *Zacurus*, in his seventh Book. 15. Chap. P. 517. &c. touching which we have before spoken in the Chapter of *Caſtarths*.

II. *Gravedo* or *Coryza* is a defluxion of the Excrements of the Brain (being crude and thin like water) unto the nostrils, which is accompanied and attended with a frequent sternutation or sneezing.

This Malady is well enough known, and by it self discovered. It ariseth from the distemper of the brain, either hot, or cold: concerning which enough above.

III. *Sternutation* is a violent and involuntary expulsion (by the nostrills) of the flatulent windy spirits, and sharp vapours offending the Brain.

It is done with a Loude voice, as well because the Windy spirit breaketh forth altogether at once; as by reason that it forceth its passage through the streight & narrow holes of the nostrills. It ariseth either from external causes, (and then the nostrills are to be supled and gently stroked with the oyl of roses, or milk) or else from internal humors and vapours brought thither; touching which see further in their proper Chapters: but is wont for the most part, and too commonly to be neglected by the Physicians, unless in Plethorical bodies it happen to be accompanied with a distillation in the very first beginning of the disease. The little veins in the greater angle of the eyes, and that is nighest unto the nostrills being forcibly pressed together, do forthwith stay and stop the frequency thereof.



Title VII. Of the diseases of the Tongue, and the Symptoms thereof.

THE Affects of the Tongue are, a Tumor or swelling, *Ranula*, a blackness, a Palsy, a stammering, an *Aphony* or Speechlessness, and a hurting of the Taste.

I. The Tumor ariseth either from External Causes, as the anoynting thereof with hydragre or quicksilver, the eating of poisons Mushrooms, &c. and then, those things that purge are to be eschewed, and not medled with-

al; the Tongue is to be washed and cleaned with the decoction of *Scabious*, and plantane, together with a little treacle, and honey of *Roses*. Or else from internal causes, to wit, an afflux of a matter hotter than ordinary, to wit, blood or Chollic; (and then, for the most part an inflammation is excited) or else of a matter that is colder than usually; and then, the tongue waxeth white, and very much flegm floweth fourth; or else of a poisonous matter, as in the French disease, and thus carryeth its signs along with it; or else the matter is corrupt and cancherous, and then the malady is almost incurable; and a putridness, or a flux of blood (in tongues that are quite eaten through) happening at the Root of the tongue, at length the persons thus affected dye thereof. For all and each one of such like patients anunction with the oyl of vitriol and honey of *Roses* is very conducible; as likewise the opening of the veins under the tongue.

II. *Ranula* is a swelling, in shape resembling a frog, which now and then ariseth and groweth out under the tongue, out of that soft flesh on which the tongue lyeth, and unto which it is tyed and fastened as with a chain.

It is known by the bare looking upon it. It ariseth from a viscus and Pituitous blood flowing thither, and exciting a soft and loose swelling, that being opened yeildeth forth a kinde of stony filth like unto the white of an egg. It is cured, either by topical remedies, (among which the oyl of vitriol with the hony of *Roses*, is very prevalent and avaylable, or else by Chyrurgical Operation, which ought to be seconded with liniments of torrefied *Tragacanth*; together with the *Hermodactyl* root, and the white of an egg; or with gargarismes; or with both together.

III. A Blackishness with a scabbedness and clefts sometimes ariseth from hot and fiery vapours and Exhalations, and this especially in burning fevers. It ought to be washed with the Milk of a Goat, or that of a Bitch; and also to be cherished with the Mucilage of the seeds of *Psyltum* or fleabane, and quince seeds; and after all to be washed with refrigerating waters, together with the salt or stone *prunella*.

IV. A Palsie hapeneth unto the tongue; and that either unto the whole tongue, (and then those nerves that are derived from the seventh Conjugation of the Brain, neer unto the place where the spinal marrow hath its beginning, are wholly impeded and stopped; and there is also very great fear of an Apoplexy impeding, and now nighe at hand) or else

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only unto a *part thereof* (whether the right or the left) either by the default of the Nerves, or the Spirits. In the *Curing* hereof (Universals alwaies premited) we commend to you the *Salt of Margarites*, ten grains thereof in *Malmesley*; the *Oyl of Rosemary*, with the little rols of *Diambra* or *Diacastoreum*; the *Water or Spirit of Black Cherries*; the rubbing of the *Tongue* with *Tobacco Leaves*, *Rocket Seed*, and *Treacle*. See likewise the *Electuary of Solenander*, in his *Consultations*.

V. *Stammering* and *Stuttering* infest the *Patty*, either from *Drunkennes*, or from an *ill Composure* and frame of the *Tongue*, or from the *shortness*, and *excessive thicknes* thereof; or else from its *Immoderate dryness*, or overgreat *Humidity* and moisture. It is not to be taken away, and *Cured*, but with much difficulty.

VI. The *Aphony*, or *Speechlessness*, arieth either from a default and error in the natural *Formation* thereof; or else from the *Palsie* when it is *Consummated*. It is to be *Cured* like as the *Palsie*. And for this purpose there is commended the water of *lillies of the Valley*, and of *Lavender*; with the *Blood of a Turtle*, the *Oyl of Anni-seeds*, and the *Spirit of Vitriol*.

VII. The *Hurting* of the *Taste* is then said to be, I. *When it is either Diminished*, or *wholly Abolished*; and this either by the overcooling of those softer Nerves derived from the third *Conjugation* of the *Bram*; or else by the affecting and hurting that part of the *Brain* from whence they proceed and pass forth: there is here to be prescribed the opening of the *Vein* under the *Tongue*; as likewise all those things, of which we made mention in the *Aphony* and *Palsie*. II. *When it is depraved*, so that another kind of *Savor* is perceived; which then happeneth, when either the body of the *Tongue* or the *Membrane* that encompasseth it about, is *Replenished* with a noysom and foul *Humor*, that either alone of it self, or else dilated together with the *Liquor* of those things that are *Eaten* and *Drunk*, penetrateth into the *Body* of the *Tongue*, and the soft *Nerves* thereof; and then the *Savor* is perceived to be, in *tast*, either *Salt*, or *bitter*, or *acid* and *sour*, according to the nature and quality of the *Exhalation* and *Humor*. And here we approve of the *Rubbing* of the *Tongue* with the *Root of Zedoary*, or *Gentian*, the *Rad-*

dish pickled in Salt Chewed before *Supper*, and the *Mouth* afterward washed with *Wine*, &c.



Title, VIII. Of the Diseases and Symptomes of the Lips.

The Affects of the Lips are, *Clefts*, *Ulcers*, *Trembling*, and *Preversion*.

I. *Fissures* or *Clefts* are a *solution* of the *Continuity* of the *Lips*, by *overmuch dryness* and *extension*.

They are known by the view. They have their *Original* from *overmuch dryness* and *extension*, as was said before in the *definition*.

It is *Cured* by *Correcting* the *dryness* with those things that *Humectate* and *moisten*, and by *uniting* of the dissolved *Union*. For this purpose we prescribe that *Fat* which distilleth out of those *wooden Spoons* used in *Kitchings* to boyl withal, if they be put near unto the *Fire*. They are variously *divided*, I. Some are from the very *Birth*; and these are hardly *Cured*. Others are *Adventitious*, which are more easily *Cured*, unless they chance to degenerate into a *Cankorous matter*.

II. Some are from *Causes External*, *Cold*, *heat*, the *North wind*, &c. and then the *relaxation* of the *Patient* will suffice. In the *Curing* of them, like as they almost be removed, so ought there to be a regard had unto each particular of them. For those of them that have their *original* from *Cold*, the *White Pomum* is excellent good. Others from *Causes Internal*, to wit, I. *Hot Humors*, which are many times devolved from out of the *Head*, and these bring along with them a kind of *itching*, and *profundity*. In the *Cure*, the matter being *Evacuated*, fine soft *Linnen clouts*, well soaked in the *Juyce of Sengreen*, are to be imposed and laid on them; and if the *Chaps* or *Clefts* be somewhat deep, they are then to be anoynted with *Goose Grease*, and *Capons Grease*. II. From *Vapors* which are *Hot*, *Dry*, *Salt*, and *Sharp*. They ascend up from the *inferior parts* by the *Oesophagus*, or the great rough *Artery* called *Aspera Arteria*. They infest wanton *lustful Women*, from the *dryness* of their *Womb*, by

by Reason of the common Tunicle; and they produce Clefs without any heat at al, or itching, or much hardneſs, neither are they very deep, or frequent. In the *Cure*, regard muſt be had unto the parts tranſmitting. In al of them, the Lip is to be turned inward, and then the maſtication or chewing of Maſtick being premiſed, it is to be moiſtened with the Tongue.

II. Touching the *Ulcers of the Lips*, theſe things are wel to be noted. I. That al of them do proceed from Humors that are ſharp, Choleric, and Serous; or Wheyiſh, either from aduſtion and putridneſs, or elle from their admixture. II. That ſometimes they are covered over with a cruſtineſs, and ſometimes running. III. That ſometimes they are Critically thruſt forth in Malignant, and likewise in other Feavers; and theſe are eaſily Cured of themſelves, and they deſign the end of the Feaver; if they be together with the Natural ſtrength and Vigor much impayred, they then threaten death: and ſometimes they are thruſt forth *Symptomatically*, and that either by Reason of a Contuſion of the Lip; or by reaſon of Poyſons; or by Reason of Humors, as in the French Pox. In the *Cure*, Medicaments are moſt fitly and beſt of al adminiſtred about the time of the Patients ſleeping. Al ſharp meats ought carefully to be avoyded.

III. The *Trembling of the Lips* proceedeth, either from *External Cauſes*, to wit, 1. Cold, with a grating of the Teeth. 2. Wrath or Fear, the ſpirits being thereby either diſſipated, or made to retire into the more inward parts. Or elle from an *Internal Cauſe*, as from the weakening of the Nerves in ſome extraordinary great affect of the brain; in the Nauſeouſneſs of the Stomach, and propenſion to vomit, from a ſharp Humor pulling and twinging; or elle from the agitation and diſturbance of the Stomach by the conſent and agreement of the Membrains thereof, in caſe of Worms. The *Cure* muſt be ordered according to the Cauſes.

IV. The *Perverſion of the Lips* proceedeth from the affect of the *Nerve* of the third pair, there being then a Convulſion of the Muſcles; and this either of it ſelf, from dryneſs; or elle from the *Event*, or when the neer allyed and conjoynd Muſcles, (that together and at once lit up or preſs down ſome one of the Members) are drawn together and ſuffer a Convulſion; or elle when the Muſcles *Antagoniſte* are reſolved. It is deadly, the ſtrength and powers of the body being ex-

treably weakened, in Continual Feavers, and when there is a peculiar defect of the Organs, It is voyd of al danger, if the powers of the body be ſtrong and vigorous, the actions thereof conſtant and Uniform, and when the *Metaſtaſis* (as they treat it) or transferring of the Critical Matter unto the Head be accompliſhed.



Title IX. Of the Diſeaſes and Symptomes of the Face.

Chap. 1. Of the Opening of the Mouth, Gaping, and Yawning.

HERE belong unto the Affects of the Face, the opening of the Mouth, Gaping, Yawning, the *Wriſhing* thereof, and that we call the *Ptyaliſm*, or frequent ſpitting.

I. The *Opening of the Mouth* is, when that bone that by Nature ought to have been ſhut is yet not ſhut.

This cometh to paſs, I. When the lower Jaw-bone Joyneth and groweth unto the Head; which very rarely happeneth. II. When tumors ariſe neer about the *Conjuncture* of the Jaw bones, in the inflammations of the Jaws and the *Tenils*. III. When the *Roof of the Mouth*, (in the which the Cheek is turned and moved,) waxeth ſtiff, and the Mouth becometh ſo cloſe ſhut together, that even in windy ruſtures or belchings it cannot be widened and enlarged, there being gotten in, and deeply inſerted into that *Juncture* and the bonds thereof a moſt filchy and naſty humor. IV. When the *Neck* is diſtended by Reason of a wound in the *Nerve*, becauſe that then the Jaws wax ſtiff like unto the bones.

II. The *Gaping of the Mouth* is then, when the Mouth that by Nature (one Lip falling down and reſting upon the other,) ought to have been ſhut, Gapeth. It ariſeth, 1. From an ill Cuſtom. 2. From the Relaxation of the Nether Jaw-bone. 3. From the Obſtruction of the *Noſtrils*, that ſo more ſtoce of Air may be attracted. 4. From the aſcending up of extream hot Vapors, in Fea-

vers; and then, if there be pains of the Jaws (without any swelling) that albeit they be but small, yet seem as though they would suffocate and strangle the party, then the mindes disturbance and alienation is portended and threatened. 3. From the Hurting of the Memory in the Lechary.

III. Oscitation or Yawning is a vehement distention of the Mouth by Halituous and windy Vapors gathered together in the spaces of the Muscles of the neiber Jaw-bone, and of the Cheeks, and Estimulating or provoking the Excretive faculty to do its office by Excretion. Touching the Signs, we need take no great pains to find them out: but indeed, in regard that the Passage of the Ear at that time doth not sufficiently admit of, and give a meet entrance unto the Air, and likewise that the Auditory Nerve is compressed, it hath therefore Joyned with it an hardness or thicknes of hearing. The Cause is expressed in the Definition. The Cure is scarcely to be Hoped for, or expected, if it happen in Child-bearing. It is somewhat Doubifull, if it Relax and loosen the lower Jaw-bone. But otherwise, if it happen without a more frequent occasion, if the matter being widened the Air be abundantly and greedily drawn in, and then instantly excluded and thrust forth again with a loud noise, it presageth Diseases; and it is in very deed the Proludium of Feavers, by Reason of the ascent of Vapors from the matter collected together in the lower parts, and there putrefying. It is to be effected and wrought, I. By excluding the matter that fomenteth and supplieth the Vapors. II. By the Discussion or Revulsion of the Vapors themselves.

Chap. 2. Of the Writhing of the Mouth.

THE Writhing of the Mouth is a distention thereof, proceeding from this, to wit, when either the Muscles of the Face, or the Nerves of the third and fifth Conjugation, or those that descend from the first and principal Vertebra of the Neck.

The SIGNS are, that one of the Eyes can never be rightly shut; and that the Patient being bid to spit forth, doth it on the one side only: and if there were no other signes, yet this there will be, that the Party being commanded to laugh, or to pronounce the letter O, can by no means stir or move one side of the Mouth.

The CAUSE is expressed in the definition.

The CURE is so much the easier, if this unequally affect hath no consent or agreement with any other part of the body. But more difficult, if it be lengthened out and protracted beyond the sixth month. How the cure is to be performed shall be further shown in the differences.

Now it is divided in a two-fold manner, according to the nature and condition of the Causes.

I. One is from Resolution, which may be known by this, that the part affected is loose, and the softer part thereof drawn to that part that is found; and that the sense in the part affected is very obtuse and dull; that the eye lids in part fall down; that the face is extended without any wrinkles at all, and that it continually inclineth toward the inferior parts. It ariseth from the very same causes from which it portendeth a pally or an apoplexy. It is Cured in the manner as a palsey, 1. By Universals; where note well, 1. That before the fourth or the seventh day (unless there be a fear of the before mentioned diseases) we must have no recourse unto the stronger sort of medicaments. 2. that a vein is to be opened, first in the Arm, and after that under the tongue. 3. That Cupping-glasses with scarification ought rather to be applied unto the shoulder blades, than unto the first vertebrae, lest that if they be too often imposed on the neck they may haply cause a trembling. II. By Particulars, and then Errhines and Apophlegmatimes are of good use. Gargarismes are not to be administered before errhines, lest that the matter be thereby drawn unto the face. Outwardly, let there be inunctions of Castoreum. Let the mouth by Ligatures be reduced again unto its natural state. Let the sick person be put into an obscure and dark place, lest that by much light the humors being scattered run together unto the nerves. Let a looking glass be set oppositely before him.

Another from Convulsion; which is known by this, that the part affected is hard, and for the most part, full of pain; that the sound part is sometimes drawn unto that extended; that the skin in one part thereof is rugged and wrinkled, and in another extended; and lastly, that there is here present but very little Salivation or spitting. It ariseth from the same Causes with the Convulsion. And it is likewise as hardly cured (or else not at all) if it teize upon both sides of the mouth (we call it then a Chymical

chymical spasme) and be violent & strong; for sometimes within four daies, and sometimes again (at the furthest) within twelve, the matter being transferred unto the head killeth the party thus affected; or if it happen in burning feavers, a pernicious Phreny, &c.

II. Another is, *when the Muscles are affected*; & then the vicious and deformed figure teacheth only that part of the face which the affected muscle covereth. Another, *when the nerves*; and then, their spring-head and beginning being affected, the Brain is likewise affected in the one half thereof; and half the face also, together with the whole body, suffereth; but if they be affected in their progress, then the distortion or writhing seizeth upon the one half of the face throughout all the parts thereof: when the *third pair* of nerves are affected, (in regard that the same part thereof standeth forth by the same holes with the moving nerves of the eyes) the eye chiefly suffereth: if the *fifth pair* be affected; then there is likewise some slight hurt of the hollow or inner parts of the Cheeks; but if the *first vertebrae of the neck*, then the hurt that befalleth the Cheeks is so much the greater; but then the eye (unless withal the Temple muscle, into which the fifth Conjugation sendeth forth a smal branch, be affected) is the more freed from suffering.

Chap. 3: Of the Ptyalism.

A Ptyalism is a frequent and involuntary spitting and spawling, without any Cough or retching, proceeding from a superfluity and over great store of spittle.

Our discourse is of that ptyalism that is Symptomatical, and not of the Critical, which freeth the sick person from the disease he lyeth under.

Of SIGNS there is no need at all. It is termed *involuntary*, the better to distinguish it from that that is by use and Custom; whether it be in concluding of a sentence in a discourse, or whether otherwise, it maketh no matter. It is said to be *without any cough or retching*, in regard that what for the most part upon excretion or reaching is cast up out of the Thorax or breast, is most properly called spittle; and that salivation or spawling, that is cast forth, and commeth away without the said stretching or retching.

The CAUSE is an excess and over great store of Spittle. For if it be considered as it

is Naturally in its Mediocrity, so it is requisite, by its mixture to prepare the meat while its masticated and chewed in the Mouth, for the first Concoction; to further and help the speech, and to be the Vehicle of the several Tastes.

The CURE (in general) is to be directed towards, and ordered unto the Corroboration of the Tonsils, in regard that it is bred in the assistent Glandules on both sides the Tongue, (which they call Tonsils) by the concurrent heat of the Tongue and the other parts in the Mouth. This is done with the Decoction of the Leaves of Myrtle, Plantane, and Alum, &c. Which are only to be kept and contained in the Mouth, and not to be Gargarized therewith lest that thereby more Flegm be attracted and drawn unto the Superfluous Spittle.

It is divided according to the Causes thereof.

One is from Causes External increasing the Spittle, to wit, that dangerous and pernicious anoynting with Quick-Silver, sul feeding upon moist meats, and excessive drinking. And this ariseth and sheweth it self after meals.

Another from internal Causes, to wit, a waterish and Flegmatick Humor; which 1. Sometimes falling down from the brain unto the Jaws mingleth it self together therewithal; and then the same thing likewise is done and hapneth in the Relaxation or loosening of the Columella, the inflammation and Ulcers of the Mouth. The Cure is to be directed and ordered according to that of a Catarrh. 2. And sometimes that that is heaped up in the Whole Body is transmitted thither; and this most commonly happeneth in Infants. 3. Sometimes it (as it were) sweateth out of the overmoist and empty Stomach, and this especially after Chronical Diseases; and then, a regard is to be had unto the purging of the Stomach by Aloetick Medicaments, Frankincense, and Mastick taken in wine, Meats well sauced with Mustard, and Diagalanga. 4. Sometimes it proceedeth out of the Intestines, as in Worms; from the Spleen, as in thote that are afflicted with the Scurvy; out of the Breast and Lungs, &c.



Title, X. *Of the Affects of the Mouth.*

Chap. I. *Of the Apthæ, or Exulcerations of the Mouth.*

Affects of the Mouth properly so called, are, the exulcerations termed *Apthæ*, and *Fætor*, or the stinking of the Mouth, and the Breath.

The Apthæ, are certain *Hot and Fiery Exulcerations in the highest part or Superficies of the Mouth that have in them something of heat.*

There is in this case no need of **SIGNS**; they are sufficiently known by the sight alone.

The **CAUSES**, as well External, as internal, shall be expressed and explained in the Differences.

The **CURE** is performed by *Repulsion*; in the beginning with astringent, and in the progress with discussion; but by *Discussion* alone, and *Maturation*, if they incline and tend toward a suppuration; and here *Milk* boyled, or the Decoction of *Raisins of the Sun*, is to be made use of, and it is known to be of singular benefit.

They are divided after a various and Different manner.

I. Some of them are from an *External Cause*, to wit, an anoynting with *Quick Silver*, Meats of a sharp quality corrupted in the Stomach; the eating of *Mushrooms* or *Toadstools*; and the Retention of the *Menstrua* or monthly Courses, &c.

Others from *Internal Causes*, to wit, 1. *Ill Humors* either generated and bred there, or else transmitted thither from some other place, and then they resemble in color those Humors they proceed from. Those that take their original from *Flegm* are perceived to be less hot than the rest. Those from *Choler* for the most part are inflamed. Those in little Children, if they be black, and have a kind of crustiness over them, are pernicious, destructive, and deadly. These require Universal Remedies. 2. *Vapours*, that are sent forth

either from the whole body, or else from part thereof only, and that more especially an over hot liver. They easily by their Acrimony offend and hurt the uppermost parts of the Mouth, by Reason of their softness and tenderness: and in fevers they very frequently produce such a like Disease.

II. Some are *Recent* and new, which are the more easily Cured and healed; others old and *Inveterate*, and these not without much difficulty; and this, as well by Reason of the quick sense and apprehensiveness of the part, which is further irritated by sharp and piercing Medicaments as that the Medicaments are diluted and vitiated by the Spittle; and lastly as by Reason of the speedy hastening of the Malady (being in a place hot and moist) unto a Rottenness and Putrefaction.

III. Some of them are *Sordid* and foul, which may be washed with *Sugared Water* well mingled with the Oyl of *Vaniol*. Others leaving behind them their *Sordid and filthy Ulcers*; and then the *Green water of Platerus* is fitly and properly to be administered, and this is to be followed by the washing of the Mouth with *Plantane Water*.

IV. Some of them do *only infest* and annoy the uppermost Skin, and from thence by degrees creep along into the gums, pallar, the sides and Root of the Tongue. Others *Penetrate* and pierce *more deeply* and eat quite through the *Palate* and the *flesh of the Tongue*; especially in infants; in regard they have the softer and more tender bodies. There is here to be commended the Decoction of *Savory* and *Betony* in *Wine*, if the Mouth be thoroughly washed therewith; as also the *Water of Nuts* distilled with *Vinegar*, and a *Sponge* therein dipt, and so applied.

V. Some are in *Children*, which most usually proceed from the *Breast-Milk* when it is hot, sharp, and Salt; (and these are to be Cured with the *Syrup of Mulberries*, together with *Honey of Roses*, or *Oxymel*, or honyed *Vinegar*. Others in such as are *Older*, and grown up to their *perfect state*; and these require and call for *Univerfals*.

Chap. 2. *Of the Stinking of the Mouth.*

THe *Fætor* or *Stinking of the Mouth* is the *offensive Unfavoriness of the Breathing*, proceeding and arising from a *stinking Vapor* passing out of the Mouth.

There

into the cavity or hollow thereof; or else it may be anoynted with the dissolved unguent of *Gum Ammoniack*, and the seed of *benbain*. But here observe, 1. That the peere neighbouring teeth ought to be well guarded and fenced, lest that otherwise they be touched by the aforesaid medicament. 2. That the mouth is to be kept open, that so the Spittle may the better flow forth. 3. That nothing is to be swallowed down.

Article. II. Of the Looseness, or Movableness of the Teeth.

The Mobillity of the Teeth is the weak and infirm standing of them, proceeding from the proper Causes thereof; upon which said vacillation or infirmness the falling forth of them doth oftentimes ensue.

The Teeth are the Subject, (but especially those that we call *Inscorii*, or the Cutters) which are fastned with one root only.

The tooth it self if touched wil furnish us with a **SIGNE**.

The **CAUSES** are either *External*, or *internal*.

External, to wit, a blow, or a fall; and then we are to deal by astringent medicaments; but chiefly with the remedy that is compounded of *Scorus one dram, burnt Alum, Gals, the Juice of Aaricia, of each half a dram; red rose leaves half a handfull*; decocted with a pint of red wine, until it be fallen a thun bs breadth in the boyling, and then strained; with which the teeth ought dayly to be washed.

The *internal* are, I. an ill *depraved Juice* corroding and eating through the gums or the roots of the teeth; and then sharp distillations had their precedence, and the teeth their pain; in this case the powder that is made of red coral prepared and mastick, is very available; if this happen in the venereal disease, for the Cure we must have recourse unto the said disease. II. *Overmuch humidity* loosening the roots of the teeth; and then the mouth aboundeth with spittle, and the gums are soft. In the Cure we are to make use of astringents of the decoction of *Sea-fern, Capars, Mirtle leaves, with the oyl of Sulfur. Pomgranet rinder, Pomgranet flowers, and vitriol*, in regard that they make the teeth black are carefully to be avoided; if it chauce from the scurvy, we must then have respect unto it in the cure of the distemper in hand. III. A *defect of aliment*, which happeneth in old people, and in such as

are in the way of recovery out of a disease; from whence it is that the holes of the teeth are the more widened and enlarged. It is not possibly to be cured, but yet notwithstanding we are to make use of those things that are moderately astringent.

I have already said that sometimes there followeth a *falling forth* of them; touching the which, observe. I. That in *infants* (in case the roots remain, in which the only hope of their shooting forth again consisteth) they then of their own accord *spring up and grow again*. II. That the *Molar appendix* (as they term it) seldom or never *falleth forth*, in regard that it is so closely conjoynd with the teeth, that the boney part of them may be seen. III. That the *Gemini*, or twin teeth, if they fall out, they scarcely ever return and grow forth again. IV. that the vacant places of them may be filled up with artificial teeth made of *ivory*, and put fast unto their places, alwaies provided, that due care be taken lest that from the Compression, there should chauce to follow an inflammation of the Gums, or of the Nerves.

Chap. 2. Of the Symptoms of the teeth.

Article. I. Of the Odontalgia, or pain of the Teeth.

The Symptoms of the Teeth are, *Odontalgia, Stupor, Stridor, and Nigredo*. *Odontalgia* is a sad and greivous sence of pain in the teeth, proceeding from the Solution of Continuity in them by reason of humors.

It is an afflicting and greivous sence of pain; for both the teeth, and likewise the soft and tender nerves of the Brain proceeding from the fifth and sixth Conjugation are partakers hereof: and the little membranes that encompass about the internal Cavity have likewise a little nerve implanted at the very root of the tooth.

The Teeth (and especially the Grinders) are the Subject. Yet notwithstanding that pain is different, and to be distinguished from the pain in *Children while they are breeding teeth* (which is greatest) and at the height, when the dogteeth (as they are commonly called) break forth; the which said pain ariseth also from the hardness and thicknes of the Gums, and soon vanisheth away, if the aking tooth be anoynted

anoyned with the fat of a hen, or the milk of a Bitch.

There is no need of **SIGNS**: and yet notwithstanding it is dilligently to be discerned and differenced from the pain of the **Gums**, that are sometimes inflamed, swel and putrefie, and which is not at all removed, or so much as mitigated, although the tooth be drawn and taken forth.

The **CAUSE** is a humor dissolving continuity: touching which more in the Differences.

There is **Good hope** of a **Cure**; if there be a kind of **pus** or purulent matter gathered together in the Ear; and if the swelling arising in the Gums or in the Cheeks not first appearing, the matter be transmitted and thrust forth from the inward unto the exterior and outward parts. But there is but **very small hopes**, if there happen withal a burning fever, and an unusual grating of the teeth; in regard that this last (especially when it invadeth the patient by reason of the convulsion of the temple muscles) seeing that it denoteth the touching and hurting of the brain; it therefore first of all threateneth a deliry or dotage, and soon after (in regard that it betokeneth the confirmation of the mallady) it menaceth and portendeth even death it self. *It is performed*, 1. By the mitigation of the pain (if it be externally urgent and intollerable) by narcotick medicaments.

That that is here profitable & expedient, is, *two grains of opium with an equal part of Saffron* wrapt up in silk, and put into or betwixt the pained teeth; the washing of the mouth with *vinegar and Opium*; Pills formed of *Opium* and the *Treacle of Andromacus*; touching which see *beckerus*, in his *medicus microcosmus*. The pain being once asswaged, let the mouth be forth with wel washed with the decoction of *sage and Rosinary*. II. By the evacuation of the peccant humor, by bloodletting; and here, (when it is for Revulsion) the blood must be drawn out of the greater vein; but when for derivation, from the lipps of the ears, or else from under the tongue; neither are we to forget or neglect the use of vesicatories behind the ears. III. By the repulsion and *interception* of the said humor; and for this purpose serveth wel the Emplaster of *mastick, Gum elemy*, and *Tuccamahaha* throughly warmed, and so applied to the temples. IV. By dissolution, with the playster of *Melilore*, and other the like. V. By the *Application* of such remedies as act and operate by their own specificall property; among which the cheif are,

the *tooth* of a dead dog, butrit in the furnace, mingled with posset drink, and so impoted; the root of the *iharp and sower* sorrel taken up in the spring, before it blossom and bud forth, wel dried, and so applied unto the pained tooth; That we term *seneca serpentis*, boyled in wine or vinegar; *Gum Hedera* put into the teeth. VI. By *extraction* and drawing it forth; which will be much facillitated, if the tooth be first touched with the distilled water of *Sal Armoniack*: take notice of this, let the Cause be what it wil: Take the *Fern root* and *Cinquesoyl*, of each three drams, *Bistort*, two drams; the *leaves of Rew*, of *Sage*, of *Betony*, the *Flowers of Roses*, of each half a handful; boyl al these in a sufficient quantity of red wine that is most astringent, and as much common water as you think fit, (until a third part be wasted) for a Collution to wash the mouth withal.

The *differences* are taken from the *original*, *place*, and *quality of the Humors*.

I. For their *rise and original*; they somtims flow together from the highest part or crown of the *head*; and then, the Revulsion ought to be by the *Cephalick vein*; and likewise those things that we hinted before touching repellens, are heedfully to be observed. Somtims they arise from the *inferior parts*, and then the revulsion ought to be made by the *Basilick vein*.

II. For the *place*; somtims they stick and abide in the *tooth*, and then the pain is not altogether so deep; but is extended according to the latitude of the tooth. For the most part it conteyneth within it a worm; by the motion whereof the pain is exasperated. Somtims in the little *nerve* tending toward and into the roots of the tooth, and the nervous membrane thereof; and then the pain is the more vehement. It extendeth it self in breadth al along the *Gums*, and reacheth even unto the *Ear*; the tooth being taken forth, it is much ealed, in regard that (by reason the way is opened) the pain may the better be dispersed and blown abroad. Somtims it leaveth it self in the very *Jaw-bones themselves*; and then, it floweth into the upper *Jaw-bone* along by the greater *Angle of the Eye*; and into the lower by the *Temple Veins*. We cannot attempt the *Cure* by *Repellens*, without apparent danger; in regard that the matter being brought unto the *Jaws* inevitably suffocateth and choaketh.

III. For the *Qualities*; some are *hot*, *Serous* or *Whyeith*, *Salt*, and *Sharp*; which

excite a most violent and intolerable pain, but hot withal such as soon hath an end, by Reason of the sudden changes. It is very rare that they have adjoynd to them (as a Concomitant) the swelling of the Cheek. They are removed and taken away by Repellers; among which are, Roots of the *sour Sorrel* boyled in hard and aultere Wine, and together with Wine held in the Mouth as long as need requireth; the Roots of the *Wild sloes*; (the outward Rind being taken away) and this indeed is one of the cheif Remedies, al things else corresponding, and answerable thereto. Others are *Cold* and *Flegmatick*; from the which that pain that proceedeth is indeed more remis and gentle, than the former, but then it is of longer continuance; these most commonly produce a swelling of the Cheeks. This pain is to be taken away (after that Universal and general Remedies have been made use of) with *Campfire half a scruple*, Spirit of Wine two ounces, or of the *Juniper Gum* half an ounce, boyled together with eight ounces of Rhenish Wine, and for a while kept in the Mouth; Or lastly, of the *Distilled Oyl of Clover*, two drops thereof, with a smal proportion of Camphire, put upon the Tooth being first wrapt up in Cotton.

Article, II. Of *Stupor*, *Stridor*, and *Nigredo*, in the Teeth.

THE *Stupor*, or (if we may so term it) the astonishment of the Teeth is Caused, I. Somtimes from the *Sowness* either of meats, or of the Humors, or else of the fumes and vapors; which frequently befalleth those that are *Hypochondriacal*. II. Somtimes from the *imagination* at the Noise that is made in filing of hard mettals, or the Mastication and Chewing of sharp sour fruits by one standing near. If the sound be very acute, piercing, and making a loud crashing, then the imagination suffereth a kind of violence (the Application of the said noise being made within an extream narrow compass) and then next of al the Membrane of the sense of hearing being likewise as it were smitten is offended, and thereupon is immediately contracted, and together with it certain little Nerves also even unto the Root of the Teeth; into which place a new Air suddenly falling in and getting entrance, causeth a certain kind of horrour about the Teeth. It is Cured and taken away by Chewing of *Wax*, *hot bread*, *Cloth*, &c.

The *Stridor*, Grinding, or Crashing noise of the Teeth, proceedeth. I. From the imbecillity of the Jaw-bone *Muscles*, produced and caused by cold. II. From *Worms*, the brain being affected by Content. III. From the multitude of *Vapors*, is in the beginnings of *Paroxysmes*. It is wont to threaten the *Apoplexy*, and likewise in *Feavers* the *Deliry* or *Dotage*; (in such especially as are not accustomed thereunto) in case this doing went not before the *Feaver*.

III. *Nigredo* or blackness, proceedeth from divers Causes, as well *External*, as *Internal*. And these external are, a Carelessness and neglect in Rubbing and Cleansing them; the use of sweet and hot things; and the anoynting of the upper parts with *Quick-Silver* or (as they commonly call it) *Hydrarge*: These latter, to wit, the internal, are, 1. The Expiration or breathing forth of Crudities by reason of surcharging the Stomach with meats or Drink. 2. A fault of the *Humors*, by reason of the impurity of the Bowels (and chiefly of the Spleen) left remaining behind after a *Quartane Feaver*. It is taken away by the Dentifrice Compounded of *Marsh-Mallow Roots*, and of the *Illirian Flower-de-luce*, Boyled in Water with *Salgem*, and *Alum*, of each alike, and as much as wil suffice, and after that thoroughly dried in a Furnace, beaten together into a very smal powder, and mingled wel together with some few grains of *Musk*. There are other dentifrices that are formed and made of the *Jaw-bones* of the *Lucefish* or *Pike*, burned, *White Coral* and *Date Stones* burned, the *Bones* of the *Sepia* or *Cuttle fish*, and *Egg-shells* burnt, *Harts horn* burnt, &c.



Title, XII. Of the Affects of the Gums.

THE principal Affects of the Gums are, an *Excrecence*, and a *Parulis*.

I. The *Excrecence* is somtimes so great, by reason of the Spungy rarity and looseness of the Gums, and the abundant afflux of Blood, that the Teeth (and especially the Grinders or *Molars*) are quite covered over. The Excrecent flesh is somtimes Lax and loose, fordid

did, and flagging and if it be now and then touched upon, it sendeth forth likewise a crude blood. It is sometimes accompanied with a putridness and rottenness; but then again it is often free from it. In the Cure we are to use Astringents, to wit, *Alum burnt*, *Sal Ammoniack*, *Mastick*, *Frankincense*, all of them reduced and made into a very fine flour; in case there be no putrefaction present; but if there be; then the *Green Water* of *Plasterus*, and *Hartman*; and likewise the *Unguent* of the herb *Celandine*, are commended. And this that followeth is by frequent use found to be singularly useful, and therefore much approved of. Take *Powder* of the *Leaves* of *Celandine*, *Sage*, *Crisped Mints*, and *Nutmeg*, of each half an ounce; *Alum burnt* one ounce, the *purest honey* four ounces. Let the *Hokey* be thoroughly freed from its scum by the fire; and then when it is scummed, while it is yet hot, let the powders be sprinkled thereinto; and make a *Liniment*, for the anoynting of the *Teeth* therewithal.

III. *Parulis* is an *Inflammation* of the *Gums*, extending it self inwardly unto the *Root* of the *Teeth*, and outwardly so sticking out, that even the neer neighboring parts are likewise distended, grow hot, and become *Red*.

It getteth into, and setteth it self in the upper *Jaw-bone*, from the greater corner of the *Eyes*; and into the lower, by the *Temples*, out of the *Veins* there ending, upon this there followeth an *Impostumation*, the filthy corrupt matter wherof break forth and rushest violently not unto the *Skin* of the *Face*, but unto the *Roots* of the *Teeth*, that are covered over with a thin *Skin* or covering. If the *Ulcer* be ill Cured, then there wil be a little piece of *Flesh* that wil stand out, and hang forth very much; and this is called *Epulis*. The way and Method of Curing this *Inflammation Parulis* is one and the same with that in all the other *Inflammations*. There may be the *Vein* opened that is under the *Tongue*. Useful likewise are *Cupping-Glasses* applyed unto the *Nook* of the *Neck*. In *Topical Medicaments*, it is to be observed, that all those that are rough, and of a corroding and biting quality, are to be abstained from. *Vinegar* must be forborn, in regard that it corrodeth the *Gums* that are in their own Nature soft and loose. In the *Epulis*, *Vitriol* sprinkled thereupon much benefiteth.



Title, XIII. Of the Affects of the Jaw-bones.

THE principal affects of the *Jaw-bones* are, *Immobility*, and *Relaxation* or looseness.

I. *Immobility*, or unmovableness, happeneth unto the nether *Jaw-bone*, either by Reason of some *Luxation* (when it is put out of Joyn) from a *Coalition* or growing together of the said *Jaw-bone* with the *Head*; or else, by reason of a distillation derived from the *Crown* of the *Head*, which floweth into the *Joyn* thereof at the *Root* of the *Ear*; there following upon the same a pain, and likewise a *Hard* and *Conspicuous* swelling: and hitherto appertaineth the *Scorbutical* *Rigidness* and *Stiffness* of the *Jaw-bones*.

II. The *Luxation* (or disjoyning) of the *Jaw-bone* is, the rare but dangerous *Depulsion* and forcing of the same (in the one only or both parts thereof) unto the foremost part. It is known from hence, that in this case the *Mouth* cannot be shut, the *speech* is depraved, and the *Mastication* or *Chewing* of food taken away; and if the *Procelts* be disjoyned like unto a *Bil* or *Beak*, that which is inserted under the *Jugal bone* is made to become lower in situation than the *Jugal bone* it self, and is carryed forth without the same *Jugal bone*. Touching the *Cure* hereof it is to be noted; 1. That it is with all possible speed to be taken in hand, lest that the affected *Muscles*, (by Reason of those branches of the *Nerves*, which taking their original from the *Second* and *fifth* part of the *Brain* are inserted into the *Muscles* moving the *Jaw-bone*) should likewise draw the *brain* into a *Consent* and agreement with them. 2. That if it be not restored, it then threateneth danger of *Death*, about the tenth day, with a continual *feaver* accompanying it, as also an irresistible necessity of sleeping. It is divided into that, in which the *Jaw-bone* is driven down in one part alone; (and then) it standeth forth from that part more toward the forepart; it and the *Chin* are inclined unto the adverse parts; the *Mouth* is writhed and standeth awry, and the inferior and higher row of the *Teeth* doth not so answer the one to the other, (as in truth they ought to do)

that the dog-teeth (as we call them) stand directly under the *incisorij* or Cutters; see for the Cure in the Professors and Practitioners in Physick:) and into that, in which the Jaw-bone is forced and down in both parts thereof; and the Ranks or rows of the Teeth answer and fall in one with the other; the Mouth gape more, and a stuttering and stammering in the speech followeth thereupon; the lower Jaw-bone can by no means be Joyned close with the upper, but this standeth out further than that. It is the more dangerous, in regard of the Affect of those four Muscles that draw upward the Jaw-bone, and likewise of the Nerves inserted into the said Muscles; from whence proceedeth pain, an Inflammation, an acute Feaver, and Gripping pains of the Stomach. As for the Cure, See as above.

Title, XIV. Of the Affects of the Wind-pipe or Wesand.

THE Principal Affects of the *Wesand*, are, Laxation, and Inflammation.

I. Laxation is, when it (to wit, the *Wesand*) preternaturally swelling up (yet without any Inflammation) for the most part from a *Flegmatick* Humor transmitted from the brain, is extended into an extraordinary length.

And it is then called *Cionis Cbalasmene*; but it is termed *Staphule*, or the Grape, when in its lower part Waxing thick and growing round, it becometh more slender than that above which it hangeth; so that it beareth the resemblance of a grape hanging by its little foot. But then (to tel you the truth) it lyeth upon the Root of the Tongue, and the Jaws, with a kind of troublesom Titillation or tickling; with which whosoever is affected, he is perpetually striving and endeavoring (but all in Vain) to devour it; fearing lest that by the impetuous violence thereof he should be strangled. The *Columella* it self becometh soft, somewhat whitish, and of the same color with the Palate, without pain and heat. The Humor is sent down from the brain; and this especially cometh to pass in Catarrhes. This Affect is Cured like as the Inflammation. If

the *Columella* be Eaten through, the sharp Humor is to be tempered and qualified; and after this *Absterision* or Cleansing must follow. That which is here of singular benefit, is, a new laid Egg Eoyled unto a hardness, cut through the midst, and for some hours applied to the Crown of the Head; in Infants, a clean Paper four double, wel wet in the Mothers Milk and Rose water (as much of one as of the other) applied and laid upon the Crown of the Head; a Powder compounded of Long Pepper one scruple, the Juice of *Acacia*, and *Tormentil* Roots, of each two scruples; and to blown in after the use of an Astringent Gargarism.

II. The Inflammation of the *Wesand*, is, the rising or swelling of the same, from a *Cholerick* Blood fallen down into it, with a redness, burning heat, pain, danger of suffocation, and sometimes also with a Feaver. The business is here alike as in other Inflammations.

Title, XV. Of the Affects of the Tonsils.

THE Principal Affects of the *Tonsils* are, an Inflammation, and an Ulcer.

I. The Inflammation of the *Tonsils* is a rising or swelling up of them, produced by the afflux of Humors.

It is known within under the Jaw-bone by the touch, and by the sight thereof; where like unto a smal Gobbet sticking in the Jaws, it presseth by its weightiness, and hindereth, so that neither Meat, nor drink, nor spittle, can easily pass through either up or down. There are also present, pain, a burning heat, redness, and a thirst; and it falleth more easily into the *Tonsils* than the *Wesand*, by reason of the softness and looseness of its proper Temperament, and likewise its place. It ariseth Externally in little Children, by Reason of their Voracity, and insatiable feeding (the Greeks call it *Addephagia*) unto which there is likewise added a weak and tender Constitution of Body; in Children that Suck, by Reason of some fault and pravity in the Milk: in Girls, from an insufficient Purgation of the *Mensirua* or Monthly Courses: in those of Riper Age, by Reason of their overmuch drinking of that wine that is not first diluted and weakened; as also their much and

and more greedy of all sorts of Meats, but more especially those that are sharp and rough *Internally*, from the afflux of humors that are hot and sharp. *Cured it is after the same manner as are other inflammations*: yet this notwithstanding is attentively to be heeded, that sometimes the Tonsils are made the harder by the over frequent use of Coolers and Repellers.

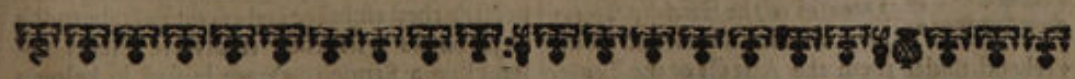
II. Touching *Ulcers*, these things come in the next place to be taken notice of, I. That there is the less danger in them, if they be without a Fever. II. That those of them that appear, in the heat of Summer (because they then immediatly creep forward) are worse than those that arise at other times. III. That they may sometimes be and appear (without any Inflammation at all) either from some Salt distillation eating through those parts, or else from some Vapor or Exhalation ascending upwards, which happeneth in the Venereal or French disease; and sometimes again from other Causes, the Spring time, and a Pestilential Air.

IV. That some of these Ulcers are *Familiar* and milde, (which are smal, clean, not descending very deep, neither inflamed, nor exciting any pain;) Others *Malignant* and *Pestilential*; and these are broad, Hollow, growing Nasty and filthy by reason of some congealed Humor that is either white, or black, or Livid, black and blew: but now if these aforesaid congealed impurities descend deeper, then there is bred that which we term an *Eschar*, or *Crustiness*. V. That those of them that Creep about the Jaws, with much trouble and annoyance; Cause a difficulty of breathing; but that if by the *Trachea Artery* they Penetrate into the Brest, they then strangle the Party the very self same day. In the *Cure*, we are to understand, that all the Ulcers of the Mouth (as well) lest that they Creep and proceed further, as also because that they evermore become the moyster by Reason of the Spittle, do need and require the stronger sort of Astringent Medicaments. And thus much touching the Diseases of the Head.

PRACTICAL PHYSIC



THE





THE
 NINTH BOOK
 OF THE
 IDEAS
 OF
 PRACTICAL PHYSICK.

Of the Diseases of the middle Venter or Region.



Title, I. *Of the Diseases of the Jaws, or Angina, that is, Squinancy.*

And thus much shal suffice to have been spoken touching the Diseases and Affects of the Brain. There follow now the Diseases of the Middle Region; which Contain and Comprehend under them the Affects of the Jaws, the Throat, the Aspera Arteria or rough Artery, the Lungs, the Chest, the Teats, and the Heart.

The Disease of the Jaws is that we call *Angina*, (or the *Squinancy*, but more vulgarly the *Quinsley*) or the shutting up (as it were) of the Jaws, that is, of the Supream parts of the

Gullet and the throat, through which is an entrance and Passage not only for the meat and drink, but likewise for the Breath; Producing and Bringing along with it a Difficulty both of breathing and Swallowing.

The Common signs are, Difficulty of breathing, in regard that the Throat is in a manner stopd and shut up; the Impediment or hinderance of the Swallowing, as wel in regard that the Gullet is obstructed; as that likewise the two Muscles deriving their Original from the Larinx (called *Oesophagici* and *Circulatores*, because they embrace and encompass about the *Oesophagus* with their transverie Fibres resembling a Semicircle) are busied in helping forward the thrusting down of the Meat and Drink unto the inferior parts, whilest that they draw up the Larinx, in the time of swallowing, that so it may give way unto the food, whether Meat or Drink: as also, in regard that the Muscles of the Jaws thrusting down the food unto the *Oesophagus*, (while they are Contracted

tracted and drawn together unto the place where they begin) do here suffer. *A pain about the Jaws*, which is either augmented or diminished, according to the quality and condition of the Causes and the subjects.

The *Causes* are all things whatsoever that are apt to stop the breath, as we shall further shew you in the differences.

So for *Cure* in the differences.

In regard of its causes, it is divided into three sorts or kinds; the first whereof hath comprehended under it four species.

I. One is from an Inflammation, which is known by the continual fever accompanying, if withal there be together present such other things as usually concur. It hath its original from that blood that floweth into those parts from out of the branches of the Jugular veins; there going before, for the most part, a difficult moving of the neck, without any apparant causes, and withal a certain pain; as likewise an unusual heat about the Jaws. It is very hardly cured, if there be present a great and Intense fever the spittle somewhat dry, Clammy and thick. The *Event* of the Cure is somewhat doubtful, if (the matter being transmitted into the Lungs) there arise an Empema or impostumation of the Lungs to the Head, if it excite and causeth a dozing, or delire: if to the Pleura Membrane, it causeth a pain of the whol Breast, with a cough, and difficulty of breathing: if unto the heart, it then introduceth and brings along with it a kind of trembling, and almost undiscernable beating of the pultes. There is no hopes at all if the fever prevail the greatest height and intensenes; if the face of the sick person become greenish, if the angles or corners of the Eyes somewhat black and thick; and lastly, if there appear froch about the Mouth, in regard that it signifieth an extreme streightning of the heart. The *Cure* is to be ordered according to the rule and method in other inflammations; which are notwithstanding there come these few peculiar things to be observed. Touching *Venesectiō*, is to be noted, 1. If it be doubtful whether side thereof be the more afflicted, (since that the Liver is the part transmitting) the blood ought then to be drawn forth of the right arm. 2. Where there is not so great a difficulty of brathing, the blood may be drawn forth the more freely and plentifully, but when the difficulty of breathing is great, there ought to be the leis blood taken away, and that at several times, and the intervall of four or five hours betwixt. 3. That if Cuppinglasses

be forthwith applyed unto that part that is nighest unto the place affected, then there will be excited in that sayd part the Greater Conflux; and therefore they ought to be put upon the Reines, and not upon either the Arm or Neck. *Purgation* is forthwith in the very beginning, to be ordayned. *Repellers* ought inwardly to be administrd unto the Jaws; and this especially indeed in the form of Gargarines, Mouth-washings (termed Collutions) and Luctures. And here there is commended, *Lapis prunella*, The Composition, of Mulberries, *Must* (or new Wine) and *Nutshells*; (in regard that it hath in it an extraordinary astringent quality and power;) those Medicaments that are formed of *Sengreen*, *Plantane*, and *Purflane*, &c. On the third or fourth day *Digestives* are to be mingled together with Repellers. In the Declination of the Disease, the *Ashes of burnt Crevises* or *Crabs* is to be wel mingled with Honey; or the *White Excrements of a Dog*, or that of a *Hen*, or that that is taken out of the *Swallows Nest*, powdered, and sifered. Among the *Maturatives* or *Ripeners*, there is the pith or pulp of *Cassia*, kept a while in the Mouth, Gargarisms of blood warm milk with Sugar; The *Emplaster* that is formed of *Marsh-mallows* and the *Common Mallows*, of each one handful, *Camomile Flowers*, *Melilote Flowers*, *Linseed*, *Fenugreek Seed*, of each half a dram; ful and fat figs, in Number ten; wheaten meal, two Pugils or little handfuls. For the breaking thereof, excellent good is the Cataplasm of the Cream of the new and fresh roots of the flower-de-luce, with butter and the Oyl of Violets. Among the *Specificall* remedies are, the *Multrum* or the *Elder Tree*, boyled and drunk; the *Powder of Swallows*, if after they have had Salt cast upon them, they together with their feathers, be burnt in an Earthen Vessel; and the *Ashes* mixed with Honey spread and anoynted upon the place affected; one scruple of the *Shavings* of the *Bores tooth*, if it be mingled with half an ounce of the Oyl of sweet Almonds, and sweetned with white Sugar Candy; and lastly, the secret of *Gunzmannus*, mentioned by *Hartman*. In the Patients diet we are to come at length unto *Nutritive Clysters*. It is divided in a twofold manner. 1. Into four species or kinds, *Cynanche*, &c. Of which more below, Number, 4. 2. Into that that is from *Pure blood*, in which there is a greater distension of the Neck, and the color of the Face is somewhat Red; and into that which proceedeth from a

Flegmatick

Flegmatick blood in the which al the Symptoms are more mild and Gentle.

II. One is from the *Relaxation of the Vertebrae of the Neck*, and then either a fall or a blow went before it as its efficient Cause; or else some Humor or other hath preternaturally loosened the Joynts and Ligaments of the Vertebra, or otherwise hath dislodged them from their proper seat; there appeareth here none of those signs, that in the others are manifestly discovered: the Neck is hollowed behind; and is not to be turned, about the *Oesophagus*; without much ado, and pain withal. The pain is felt, if the part affected be but externally touched: the Tongue falleth forth from its proper place. The Cure is to be sought for in its own due place, that is to say, from its sources, spring, and Fountain.

III. One is from a *Pituitous* or *Phlegmatick defluxion* residing upon the Joynts and the Muscles of the Neck; and then the pain is not great and violent, but dul and heavy; the swelling is somewhat broader, but then it hath in it very little or no redness; there is present no fever, or if any, it is but moderate. The voice waxeth hoarse, there is great store of spittle, the sick Persons alwaies gape with open mouth and drawing Air, there is likewise some difficulty in swallowing, but yet without any great hazard of suffocation. The Cure is to be ordered according to that of a Catarrh.

IV. That which ariseth from an *inflammation*, one is called *Cynauche*, which lyeth hid in the internal Muscles of the Larynx or the Throat; and then whether inwardly in the Jaws, or outwardly in the Neck, appeareth there any redness or swelling at al; but the Jaws are so vehemently pained, together with great danger and peril of suffocation, that the diseased persons are enforced to take in the Air and to breath with their neck erected strait and upright, and with open mouth. The fever that accompanyeth it is most acute; and the disease strangeth the party, within four days at the utmost, but very usually within eighteen hours time. That which in this case much profiteth is *Cupping glasses* applyed unto the veins under the tongue: touching which see further in *Zacutus Lusitanus* in his eighth book. Chap. 2.

Another is that we cal *Paracynauche*, which sticketh and hath its residence in the external Muscles: and then there is to be found within a certain swelling and redness, the mouth being

drawn aside and writted after a strange manner, and the tongue depressed and kept down: if it vanish away at any time when there is no *crisis* to be expected, and a litle swelling or rising appear (but yet such as is altogether void of pain) which cannot be suppurated either by the Vigor of Nature, or the help and benefit of Art, it then threateneth Death, and a return of its red color; the former, in regard that the thick matter being left al without, the more thin, and hotter part thereof is converted unto the throat; the latter, by Reason that there is likewise (by some accident) a hotter kind of matter driven inwardly.

Another *Synauche*, which is contained in the interior space or Cavity of the Jaws; and then, it likewise extendeth it self unto the Root of the Tongue, and comprehendeth the Neck it self; there is then also apparently to be discerned a swelling and a redness (in the outward parts) together with pain and heat; the which said swelling if it have recourse unto the more internal parts without any manifest cause, it then suddenly vanisheth away upon the translation of the matter: the Symptoms are here never a whit more milde and gentle than in the other sorts, but yet notwithstanding there is here greater hopes of safety, in regard that the Inflammation advancing into the outward parts, may possibly be drawn forth, and digested.

Another is that we cal *Paracynauche*, the which seizeth upon the Neck alone, and the Muscles thereof, that appertain unto the Tongue and the Hyoid bone. This of all the rest is least to be feared as having least danger in it, because of its distance from the Throat; as also by Reason of the constitution of the parts affected, which being Kernels, soft, and loose, may the better without any difficulty receive the Humor that floweth unto it, in regard that the Muscles of the Larynx are not inflamed, neither the way and passage of breathing intercepted and stopt.

V. One is that, which is dissolved and removed by a *Diaphoresis* or Sweat, the Cause thereof being thereby diverted, drawn back, Evacuated, or at least dispersed and scattered. Another, that is Cured by *Maturation*, and the Evacuation of the Pus or corrupt Matter out of it, being first opened. Another, which is terminated and ended by the Translation of the Peccant matter unto some other Part; which is known by the sudden and unexpected cessation of the swelling and the pain, and likewise

wife by the alteration and change of the Pulse. The matter is Transferred, 1. *Unto the Brain*, and then there followeth a grievous pain of the Head, a Phrensie, and a Dotage. 2. *Unto the Muscles of the Neck*, and then there is usually produced and excited an extream pain, a swelling, and sometimes a Convulsion. 3. *Unto the Lungs, and the Pleura Membrane*, and then there ariseth a pain of the Breast, Cough, and difficulty of breathing. 4. *Unto the Heart*; whereupon a Trembling, swooning; and an obscure and weak pulle affect the Diseased Party.



Title, II. Of the Diseases of the Throat.

A Single Chapter, Of those Kernels we cal Strumæ, and of Bronchocele, a swelling in the Throat.

The Diseases of the throat, are *Struma*, and *Bronchocele*.

I. *Strumæ* (commonly called *Scrofultæ*, or the Kings Evil) in the Throat are swellings in the Glandules or Kernels, generated of thick and Clammy Flegm, and included in their own proper Membrane.

There is no need here of many SIGNS; the swellings are round, Pendulous and hanging, easily moved if touched, and such as are separable from the Skin.

The CAUSE is flegm, which is somtise alone, but other while conjoynd with Melancholly, it ariseth from Meats that afford a Crude, raw, and thick Juyce, and thereupon it is most Familiar unto Infants, and such as are yet in the state of Child hood. It may especially likewise be thrust and made to appear by those Waters that contain in them Mercury or Quick Silver, such as are those in *Carinthia*, *Styria*, and about the *Alpes*. It is somtises (together with a nourishing Juyce, if the said Juyce offending in quantity be not wholly consumed and wasted) by Nature sent unto the Glandules as unto the more ignoble parts. The Membrane in which they are included is never by the Formative Faculty pro-

duced in Vain, or to the end it should be idle and of no ule. For when as the Membrane is distended by the Superfluous Humor in great abundance thereunto flowing, and haply likewise thereby broken, Nature then attempteth as it were the contexture and forming of a new kind of Membrane.

The CURE dependeth cheiffy upon the Particulars following. I. The matter that is the Cause thereof ought to be Evacuated. II. The same matter is to be wholly wasted and consumed with the Herb *Scrophularia* commonly called blinde Nettle, and Water *Betony*, the Root of the dead Nettle, the Roots of Herbs, *Filipendula* and *Gladiolus*, but especially the Root of the shrub *Ruscus* or Butchers broom; of which there is to be taken (after it hath been reduced into a smal powder) every day for a while one dram thereof in wine. III. The said matter is to be cut and dissipated by Emollient Topicks. And for this purpose there are commended the Leaves of the *Cypress Tree*, the powder whereof being sprinkled with Wine, let it be so made up into one Mass or Lump; and then let the aforesaid Strumæ or kernels be anoynted therewith for two or three daies. IV. It is to be suppurated, and when it is brought unto Pus or Matter, then the swelling is to be opened, the Pus or silt to be emptied forth, the hollow or Cavity thereof to be thoroughly cleansed, and purged; and lastly to be filled up again with Flesh.

II. *Bronchocele* is a swelling in the throat, sticking and strutting forth so that it taketh up much room; arising from a windiness, and conjoynd with an extension.

The aforesaid windiness breaketh in under the Skin, and the general Membrane, that is situate under, and knit unto the Skin in the more inward parts of the Neck. It is Caused by the Air, which, (when the Skin, whose Membrane in that place is more thick, and somewhat more red than else where) is violently pulled away from those seats and places that are subjected unto the *Aspera Arteria* or rough Artery, and the Anterior Muscles of the Neck, by some extraordinary vehement streining of the Body (and this often cometh to pass, whilest the breath is long held in, that is to the Excrements, or the infant in Child-bearing may the better and more speedily be thrust forth; or when Trumpets are strongly blown, and thereby the Cheeks extreamly swollen and puffed out) and being rent and divided as aforesaid, it causeth and produceth there a void

and empty space) to prevent a vacuity breaketh in, and so elevateth and lifteth up the Skin and Membrane into a Tumor or Swelling.



Title, III. Of the Diseases of the Aspera Arteria, or the great rough Artery.

THE Diseases of the Aspera Arteria are, Asperity or roughness, Narrowness or streightness, Wounds, and Ulcers.

I. Asperity or roughness, which is a want or defect of the Natural Smoothness, is known by the hoarseness of the Voice. Either from Externals, as from Oyl, if by Reason of its Age, or trying therewithal, it become Rank; from Nuts, from dust, from Smoak, &c. Or else from Internals, either Humors fallen down from the Head; or else A Vapor striking upon the foldings thereof. It is to be Cured by those Medicaments that moisten, Mollifie, and make smooth; and these Medicaments (termed Arterial) either they are wholly void of al kind of Mordicacity and biting quality; to wit, Butter, Milk, Sweet Must, the Decoction of Raisons, Liquorice, Jujubes, Tragacanth; or withal absterfive, as, Sugar, the Honey or Juyce of dryed Figgs, the Sugar of Penidies, the Syrup of Violets, and of Jujubes; or else with a kind of Acrimony and Tartness; as Hyssop, the Flower-de-Luce Roots, Nettle Seed, spike, Frankincense, and Mirrb. But that which is here most profitable and expedient, is, that sort of Pills that we term Bechicæ, likewise the Troquitches Bechici, and the Oyl of Sweet Almonds with Sugar Candy.

II. The streightness or narrowness of the Rough Artery is known from the difficulty of breathing, and the fear of a neer approaching suffocation and strangling, which is somtimes greater, and somtimes les. It ariseth either from those Causes that Compress or press it down, as the Relaxation or Loosening of the Vertebra, Inflammations, Swellings, the halter, &c. Or else from those Causes that Obstruēt, as things external fallen thereinto; which are to be removed. Or else internal, to wit, Humors thick, and of a Amy and Glutinous

Nature, (which are to be Cut, attenuated, and cleansed forth, with the Syrup of Maiden hair, Horebound, and Liquerish) or by reason of Purulent matter, and smal stones, (Particularly that called Grando) bred in the Lungs, and a certain kind of flesh that is bred and brought forth after wounds and Ulcers.

III. Wounds, either they touch only the Superficies thereof, and then they may be cured; or else they touch the Cavity thereof; and then the Air passeth forth in such a manner, that if a candle be put thereinto it is forthwith extinguished: if the Cartilaginous substance be wounded, (especially after a transverse manner) it can hardly ever be brought to unite again; if the wound be betwixt the two little rings thereof, they are now and then Healed.

IV. Touching Ulcers take this advertisement, to wit, that they arise from Humors that are sharp and Salt, from Poysons, and from Medicaments: and that they afflict with pain, spitting of Blood, (pure in the beginning, but afterwards purulent) insomuch that even scales, and a kind of Crustiness may now and then be cast forth: If they seize upon and possess the Internal Cavity, they are then, (by reason of the Nature and Situation of the Parts) very hard to be Cured: and lastly, that if the Cartilages be eaten through, and that there happen thereupon any putrefying affect, it is then altogether incurable.



Title, IV. Of the Diseases of the Lungs.

Chap. I. Of the Distemper of the Lungs.

THE Diseases of the Lungs are, Intemperies, Peripneumonia, Angustia, or streightness, a Wound, Phtisis or an Ulcer.

The Distemper of the Lungs is the declining thereof from its natural temper unto that which is preternatural, as wel by reason of External as Internal Causes.

The SIGNS shal be expressed in the Differences.

The CAUSES are either External; (and these

these likewise various, to wit, cold or hot (poisons) medicaments applied, the Air that being little or nothing altered is carried and conveyed unto the Lungs, in such as are destitute of the columella) or else they are *internal*, to wit, the *Humors* that are drawn along thither either from the Head, or else from some other parts, but frequently from the Liver.

The CURE is to be ordered according to the several Causes: where, in regard of the humors, take notice. 1. That in respect of the situation of the part it is not to be removed without much difficulty; yet notwithstanding that it ought to be evacuated. 2. That if there be there a greater store than ordinary of slegm, it is then more fitly to be removed with those Remedies that expectorate and mollifie (such as are Eryngo Roots; and marshmallow roots, common mallows, and Rysins) than by those medicaments that cut. 3. That many hot remedies are not here convenient, lest that the thinner parts being wasted, the thicker remain behinde. The best remedy in this case is *Linseed*. 4. That if there be present an acute fever together with the matter; we ought then to abstain from those medicaments we call *Elegmata*; for these by their dryness and clamminess do much if not wholly suppress expectation; from whence there followeth a more frequent respiration, or thicker fetching of the breath; and the matter also by the extraordinary heat becometh the more contumacious and obstinate.

The Distemper of the lungs is divided after a twofold manner.

I. One is *without matter*, which indeed hath in it no danger at all of suffocation, and is also more easily cured: Another *with matter*, which is to be Evacuated and drawn back, like as we shewn above.

II. One is *hot*, which is known by this, that the Cheeks by reason of the fumes ascending become red; and that there is evermore a dryness of the tongue (together with a thirst) which can no way be qualified but by the breathing and drawing in of the cold Air; infesting the sick person; and likewise that the breathing is more than usually frequent and swift. In the Cure Cooling medicaments (which through the rough artery are thither to be conveyed) ought to be administered; where note, 1. That those medicaments that are mainly cooling and repelling are altogether enemies and offensive to the Breast, by intercepting the passages of the blood and spirit, and by their weakening and impaying the very nature of the

Breast, since that it is Cartilaginous and bony. 2. That among the principal internal Remedies we are to account both the white and black Poppy, *Rheas*, *Violets*, *Endive*, *Barly*, *Water-Lilies* and their syrups. 3. That the diet ought to be conformable; and that for a drink and potion, the *water of barley with the Syrup of Violets* is excellent good.

III. Another is *Cold*, which is known by this, that Cooling Causes went before; and that the Breathing is but weak, slow, rare, and the Pulse like thereunto; and that the Breath that cometh forth is colder then ordinary. In the Cure we are to Use medicaments that heat; among which these are to be accounted of as very fit and proper, to wit, *saffron*, which is as it were the very life and soul of the Lungs, the Extract of *calamus Aromaticus*, *old treacle*, *Coltsfoot*, *Nicotiana* or *robako*, *scabimus*, the root of the *Flower-de-luce*, and the root of *Aron* or *Cuckow-pint*, prepared; *Elixir proprietatis*, that Mixture they term *Simplex oxymel Scillitick*, &c.

IV. One is *Moist*; which is known by this, that the voice is hoarse, the breathing thick and frequent, with a kind of wheezing, snorting, and much spittle. In the Curing hereof we ought carefully to avoid those medicaments that are overdrying and astringent. The Chymical oyl of *sulpher*, and the *flowers of sulphur* or *brimstone*, (the shops call this latter *flares sulphuris*) in a rene egge that may be tupp'd up; the wine wherein the *eyes of crabs* or *scorpilhes* have been micerated, *sassafras*, *China root*, &c. are here of singular use and benefit.

V. Another is *dry*; which is known by this, that persons thus affected wast and consume away without any Ulcer at all; that the breathing is very little and weak, but thick and short; that there is present a continual thirstiness, and but smal store of spittle. In the Cure hereof, *Raysons of the sun*, *womens breastmilk*, and *Asses milk*, the distilled water of *Tortoise*, the *broth of veal*, and the *conserve of violets*, are especially good and profitable. Externally, a Bath of sweet water ought to be Prescribed.

Chap. 2. Of Peripneumonia.

Peripneumonia is an inflammation of the Lungs from blood poured forth into the substance thereof, with a straightness of the

T 3 Breast,

Breast, a difficulty of breathing, an acute Feaver, and a cough.

The SIGNS are, the narrowness of the *Breast*, with a dull and heavy pain, that extendeth it self and reacheth even unto the *spina* or *Backbone*; where the membrains that touch upon the *Pleura* are fastened and upheld; and this pain is more remitt and moderate; unless the membrain be together inflamed; but if it be, then the pain withal becometh extremely pricking. There is likewise a *difficulty of Breathing*, and indeed greater than that in a *Pleuris*; so as that the sick person is (with extreme hazard and peril of suffocation) enforced in a strait upright posture to draw his breath, the breast or *Thorax* in that kind of situation being the more easily dilated, forasmuch as in those that ly along in their beds it falleth down, because that the parts of the *Thorax* or breast decline and rest themselves upon the *spina* or backbone, which being erected, the *Thorax* is likewise together born out, and so is no longer heavy and burthenfom unto it self. The aforesaid *Respiration* is sublime, so that in it the very top of the *Thorax* is moved, even unto the very covering of the shoulder-blades: it is also frequent and often in the beginning, and likewise it is greater than ordinary; which in a short time (by reason of the weakness and decay of the natural vigour, and the instruments of breathing) is changed into that which is far leis, and is increased by the frequency thereof. The *Breathing* is hot; and because that by the expulsion of the loopy and misty vapours the *Heart* is lightened, they are therefore the more eased and lightened, the more they breath forth the aforesaid offensive and oppressing fumes. The sharpness of it in a feaver is greater than in the *pleuris* in regard of the near neighborhood of the heart; and hereupon, these exhale hot vapours unto the *Head*, which hurrying the blood along together with them, make an impression upon the cheeks, (where the skin is but thin) and so cause the face to become red; the eyes and the *Temple* veins swell; the cough is very troublesome, by reason of the affect of the *Lungs*. It is conjoined and accompanied with *spittle*, that is sent forth at first with a kind of thinner purged and rotten matter, and by and by dyed with blood, and likewise otherwhile otherwise colored; and sometimes it is spit forth full of froth.

The CAUSE is blood, which is poured forth of the right angle or corner of the *Heart* into that vein that we call *Arteriosa*, and so filleth not only the veins and Arteries of the

Lungs, but likewise also the whole body. It is rayed and stirred up from external causes, as a cold Air, and especially the cold northerly Air immediately following upon the southerly; the drinking of generous and strong wines; a violent and more vehement motion, after long rest and quietness, and this upon a full stomach, the body being likewise full and wanting Evacuation; Anger, and other the passions of the mind, &c.

There is some hopes of a CURE if the *Spittle* being of a mingled red and yellowish color give out and intimate any sign of concoction in the *Lungs* affected; and if the impostumations be thrust forth either unto the *Ears*, or unto the inferior parts of the *Thorax*; and so they either pass and run into a fistula (and so may be evacuated) or else they are derived unto the *Thighs*. It is something doubtful, if there be want of *spittle*, by reason of the contumacy or unphialness of the matter, and the inability of the natural powers; if there issue forth and appear with much and thick urine, those sweats that at first did arise about the neck and the head; because those aforesaid sweats are thought to proceed from a forcible constraint, suffocation, and violence. As for all other things in the cure, it followeth the method of other inflammations. If it succeed any other disease and the blood be already evacuated, then Cupping-Glasses with scarification ought to be applyed unto the *Arms* and the *Thorax* or *Chest*: let the *Expectorations* be of the stronger sort, and so likewise the *Topical Remedies*.

The difference is taken from the subject and the causes.

I. One is of the whole *Lungs*, which if together with the heart it be inflamed, so that it proceed & exceed it self unto the side, it then produceth in the sick person a resolution or palsy. For the blood flowing abundantly into the great Artery, so that the intercostal Arteries are thereby filled; and so that also those little branches that penetrate throw the holes of the vertebra, of the *Thorax* into the spinal marrow, do swell, the Nerves there passing forth from the spinal are compressed, and being thus pressed together they cause a resolution, and Palsy.

Another there is of the one side or other of the *Lungs*, and not in the whole, and then there is a pain and heaviness felt sensibly and perceived in the one or the other part thereof; if the upper wing be disaffected and suffer, then the Affect extendeth it self even to the Channel bones of the throat; but if the lower,

then

then it reacheth unto the diaphragm. The vein on that side wherein the inflammation is, ought to be opened.

II. One is from *pure blood*, from whence there ariseth a Phlegmone. It is known by this, that there is produced a bloody spittle, unless haply the disease be extremely Crude; a streightness of the praecordia and of the whole Breast oppresseth the party; an extraordinary great & intence heaviness contracteth the Stern (know that part of the Breast where the ribbs meet) and the Back; the Patient is not much afflicted with any acute Fever. But now that blood, sometimes in the Angina or quinsy, breaketh forth violently out of the Jaws; and then they die within seven daies; if they escape these, then they become purulent. And because that in those that are in the midst betwixt old age and the vigorous flourishing estate of those of full and perfect growth, the expulsive faculty, is more Languid and weak than in younger persons, they are therefore not to be cured but with much difficulty. Sometimes it is derived thither from the Pleurisy, and yet not by the vessels, because that there is no conveyance for them; but by the membrane that investeth all the parts of the Thorax; and then in this case likewise, in regard there is a translocation of the matter from the outward parts unto the inward, that is to say, from the less noble unto the more noble parts, and such as are nigher unto the Heart, the Malady is therefore the more dangerous.

Another from *Chollerick blood*; from whence it is that the Quinsy is frequently turned into the Peripneumonia; and the Lungs being of a spongy substance doth easily admit of a Chollerick and the thinner sort of matter, and drinketh it in more deep than other. It is known by this, that the cough rayseth a yellow spittle and that that is not mingled with much blood; the streightness of the Chest, and the sense of weight and the veins is less than in the former differences; and lastly, it is known by this, that the patient in his fever is even scorched with a more eherent and intence burning heat.

Chap. 3. Of the streightness or narrowness of the Lungs.

The streightness of the Lungs is the interception of the vessels thereof by reason of obstruction, Compression, or exsiccation, producing a Cough, oppression, and a difficulty of breathing.

As for the Signs, Causes, and Cure thereof, let them be althought out from the differences.

The differences are taken from the Causes and the parts affected.

I. One is of the *rough Arteries*, (touching which let the Reader advise himself further, and satisfy himself fully from the following differences) the which proceedeth from an obstruction &c.

Another is of the *smooth Arteries*, which is known from the breathing, which is with much difficulty: yet not only in the beginning, but likewise in the increase thereof; from the pulse, being altogether various, unequal, intermitting, great, swift, slow, rare, frequent, vehement, by reason of the Combate betwixt nature and the Morbifique cause, she being not able to expell the fuliginous or sooty fumes, by reason of the streightness and narrowness of the Arteries; from the palpitation or beating of the heart (it being now very much oppressed) and from fainting and swooning. It ariseth either from *thick Visced* or clammy, and flegmatick humors; (and then the pulse is by the extension) it differeth much from itself, but yet it is for the greatest part more equal in itself; and this is not very hard to be cured, especially if it newly begun; the cure remaineth to be spoken of below. Or else it ariseth from a *little rising* or swelling, and then the pulse is hard by extension and dryness; its inequality is uniform, by reason that the Cause is more fixed. Touching the Cure, we shall speak more anon.

II. One is (understand this of the *Rough Arteries*) from an *obstruction* by blood, a humor &c. Touching which more below. Another from *Compression*, and almost from the very same causes, as in the dropsy. Another from *Exsiccation*, very frequent and incident unto such as work in Metals; and this for its cure requireth almond milk.

III. One is from *blood* obstructing or compressing the rough Arteries expelled and driven forth thither either from the Lungs, or from else where, which is to be driven back and evacuated. And lastly, if it become Clotted, by *Oximel scillitick*, and a *posset*, that is, a mixture of water and vinegar, (six ounces thereof in weight) so that it be pleasant to drink, and likewise so that by reason of the vinegar it provoke not to Cough; (and this to be administered blood warm three or four times in a day) it is to be dissolved.

Another from a *Humor*, and especially that that

that is Phlegmatick, which is *plentifull* and abounding, and then (if by distilling it flow forth only into the Membrane that surrouneth and grindeth in the throat) it obscureth the voice, and causeth a hoariness: if this humor fall into the hollow, & the channel of the throat it produceth a little sheeps cough (as we call it) with a certain sence and feeling of an acrimony that continually provokech to Coughing, or else the sayd humor is *thick and viscid* or clammy; but this is very rarely generated in the Lungs in regard that they are nourished by a thin and pure blood; it almost alwaies ariseth from Catarrhs falling down from the head; the which in tract of time by the force of the heat is changed into a Glassy, or Plasterlike Phlegm which being by the many distillations returning in a round (as it were) and circuit stored up in great abundance, causeth the *Asthma*. The same likewise exceedingly afflicteth the Patient with a kind of dry Cough, by the which there is hardly any thing expelled and brought away; it rendereth the breathing difficult; and causeth in the taking in and putting forth of the breath a snorting or wheezing, as we term it, in regard that it is impacted, and pertinaciously stuffed into the Lappets of the Lungs; it hath signs and tokens foregoing of a distillation either from the head, brain, or from the neighboring parts. In the Cure, whilest the matter is in preparing, with *Colts foot*, *Horehound*, and other attenuating and cutting Medicaments, let *Borage*, *Liquorish*, and *Rayson* be mingled together. The purgation is wel performed with *Agrick*.

Another is from the *Pus*, or purulent Matter that is powred forth out of some Apostume; and then expectorating Remedies have their place.

IV. One is from *Causes that in their whole kind are preternatural*: amongst which are, I. *Little Substance*, some of them very hard and solid, others of the consistence of old Cheese; all of them included in their own proper Cisterns and Bladders, and producing the *Asthma*. II. *Little Risings* or Swellings, which have their Original from a matter collected in one part, and thence strutting and standing forth, without any token or sign at all of any distillation preceding, and these said swellings adhere and stick close unto the *Aspera Arteria*, or great rough Artery. They are divided into those that are *Crude* or raw, (which are very hardly known, and they are never suppured, neither have they any Fever joyned with them) and such as are *Suppu-*

rated, in the which the *Pus* or filthy corrupt matter is so strictly and closely shut up in its little Membrane, and proper bladder, that hardly can there any noysom and stinking smell expure and breath forth of it into the Body. Then the sick persons are of a black & blew, or leaden color, their Tongue is replenished with a certain kind of Clamminess, especially when they have abstained long from Food: the Urine is dyed, and hath a tincture, either from the vehement motion and stirring of the Body, or else from meat and drink that is hotter than ordinary; after an extream and violent motion, there are little pills, and smal round bals or pellers (like unto a smal Pease) included and wrapped up in a little Membrane, ejected and cast forth of the Lungs. There is then likewise a troublesome Cough, and a difficulty of breathing excited. A pain there is that continually affecteth sick persons, but then chiefly when they are moved with a more vehement and violent motion. The Patient recovereth not to be well of these, unless, 1. The Suppuration be speedily wrought. 2. Unless the Suppuration when it is made suddenly break forth. 3. Unless it tend upwards, and be cast forth by Coughing. 4. Unless all the *Pus*, and the whole filth be evacuated and emptied forth. 5. Unless the belly (that is, that Cavity in which the *Pus* or purulent matter was contained) be perfectly agglutinated and united as formerly.

Chap. 4. Of the Wounds of the Lungs.

THE Wounds of the lungs are well known by the difficulty of breathing, by reason of the hurt the organs have received; by the casting out of froath and blood by the mouth with a cough; by the spitting up of a red and froathy blood out of the chest without any pain at all; by the swelling and strutting of the neck veins; and lastly by the various color of the face one while red, and as soon again pale and wane.

Now these wounds are *Caused* in a twofold manner. For *Sometimes* it so chansech that the fleshy substance of the lungs may be hurt; and then, in regard that the blood distilled in the Cavity of the *Thorax*, and that neither a spitting of blood, nor any Cough whatsoever argeth the party, the breathing thereupon is not without much difficulty; ther appeareth a virilitude or interchange of heat and cold, by reason of the exhalations and fumes from out

of the heart, Sometimes the veins of the Lungs are affected; and then there floweth forth in great abundance a blood somewhat red, black, and frothy: the Cough likewise is perpetual, unless perhaps there be present a prostration and decay of the Natural strength and vigour, or an oppression of the Lungs from the blood.

They are Cured, I. If the profuse flux of blood be stanch'd, and the inflammation unto which the Lungs by this means becometh obnoxious, be prevented and hindered by venesection. II. If the blood (in him where it was poured forth into the Cavity) subsist, and abide there. III. If (when the sayd blood cannot flow forth by reason of the narrowness of the wound) the said wound be widened with a penknife. Among those Medicaments that stanch and stop the blood, there are these, viz. The Strawberry bush, Betony, Scabious, the herb Ladies mantle, sanicle, Comfrey, &c. without these are altogether void of any biting quality, viz. Bole armeniack, Frankincense, &c. [Read more of this subject in the guide to Physick and Chyrurgery, Riverius Practice of Physick, and his Observations, and the London dispensatory: at the last Editions englished by me]

Chap. 5. Of the Ulcer of the Lungs, or Phthisis.

Phthisis is an Exulceration of the Lungs, from a sharp corroding matter, with a gentle Fever, a Cough, and a spittle that is both bloody and purulent; by the which the whole body is sensibly, and by little and little consumed and extenuated.

The Subject of this exulceration is the Lungs together with the parts thereof, to wit, the fleshy substance, the lappets, the vessels, and the Membranes; in those especially, that have their heads easily and soon filled, and where the head sendeth many distillations unto the organs of breathing; in those, that from their very nativity have their Lungs of a vicious substance, that is, such as is tender, soft, and easily wasted, as being most subject to corruption. And hence it is that such as are descended of a tabid stock (that is to say, those that issue from parents affected as before sayd) do all of them at the length (as it were by a right of inheritance) necessarily waste away and consume in the afore said manner: in those, that naturally have a streightness and narrowness of the Chest, and likewise a depression of

the same, a streight neck or narrow throat, a lean and spare body, and their shoulder blades sticking out behind them like as if they were wings.

The Signs are, a Gentle and moderate Fever proceeding from vapors elevated and arising out of the Lungs, and assaulting the heart by their sudden and violent irruption therunto with which there are also joynd other feavers that are otherwise sometimes Erratick and fleeting, and sometimes again invading the patient after the manner of a Tertian, whilst that the humors within the veins by that head as were kindled and set on fire corrupt and putrefy; and this (the truth is) being by its continuance and without any the least intermission, turned into the Hectick, immediately after meales, and in the night time, (like as do others) increaseth and groweth more prevalent. 2. A frequent Cough (like unto that of foxes) without any great pain, which chiefly afflicteth and troubleth the party in the night time; and it hath its existence from a matter that is sharp, by reason of the irritation of the Lungs. 3. A bloody and purulent spittle: but this is not in all. Some there have been found, who after their retching, and the spitting up of a liquid and yellow humor, (being soon after seized upon by a light and gentle fever) have thereupon begun to fal away and waste; and after some time, have cast forth by retching a certain smal quantity of blood, together with a kind of Pus or corrupt matter: and many have been by sensible degrees taken away in whom (throughout the whole course of their lives) there appeared nothing at all of this bloody and purulent spittle. But I must tel you, that this Phthisis is incident unto those that are young, rather than unto aged persons, in regard that young persons most commonly abound with blood, and consequently are affected with the heat and acrimony thereof, with the laxity or looseness of the vessels, and likewise the hardness of the same, and in regard likewise that these exercise themselves in a more violent manner, and have little regard to their diet. This hath one thing singular as properly and peculiarly belonging thereunto, to wit, that it proceed from the very substance of the Lungs, it is then frothy, and if it be put into the fire it stinketh, and is very offensive to the scent. 4. The extenuation of the body, which is from the afore said continual, but gentle fever, the which by its fiery heat (dispersed throughout the whole body dissolving the Arterial blood, the mingling where-

of together with that of the Veins is altogether necessary unto Nutrition) hindereth the Concoction of the Aliment in the whole body, and by its preternatural heat wasteth and consumeth that which is Concocted and stored up.

The CAUSE is a sharp corroding matter, fallen down thither; of which we shall speak further in the differences.

The CURE is not to be despaired of, no, not though it be attended with an Ulcer already appearing. For Galen sendeth such to *Tabæ* a City in *Gilicia*, and prescribeth milk for their Diet. Yet notwithstanding it is something *Difficult*, as well in regard that the filth and purulent matter sticking in that soft and Spungy flesh, cannot without a Cough be purged forth; by which the Lungs are from day to day more hurt and prejudiced; as because that in this daily motion of respiration or breathing, (unto which there is moreover added and adjoynd a violent cough) there cannot possibly be any Consolidation made; and also (in the third place) because that Medicaments in their full strength and Virtue cannot penetrate so far; and lastly, because that Feavers require moistening Remedies, which are altogether hurtful to an Ulcer. The Cure hath chiefly respect unto these six things in Particular. I. The removal and taking away of the Catarrhe, touching which more below in the Difference. II. The Cure of the ulcer; & here there is commended *Flores Sulphuris* (or the flower of Brimstone, as we commonly call it) with a soft and rete egg, Syrup of *Erysimo*, or water *Cresses*, of *Lobelius*, of the Juice of *Ground Ivy*, with the Flower of Brimstone, of *Marsh-Mallows* of *Fernelius*; of the Juice of *Mouse Ear*, *Milfoil*, and *Citron Rinds Prepared*; the Decoction of *Pimpernel*, *Walwort*, *Sugar of Roses Old*, with the Whey of Goats Milk; the Secret of *Freitagius*, (of which you may see further in the same Author, in his tract of *Opium*) *China Root*, *Guajacum*, &c. Let the Patient every hour lick in the *Loboch* of *Walwort*, with the Conserve of Red Roses. III. The Correction of the Blood, that so that that floweth unto the part affected may be good. And therefore in the Diet, Milk is accounted wholesome, because that by its ferosity it cleanseth the Ulcer, and by its Caseosity (if we may so term it) or Cheesie part it Consolidates: and then (lastly) by its Aereal and buttery Fatness it

Humectates and moisteneth the wasted and extenuated Body. And certain it is that Goats Milk ought to be taken at dinner time (at least, if there be present no great Feaver, or pain of the head) that so it may not sour in the stomach or Cause unfavory belchings. At Supper, the Emulsion of white Poppy Seed, and of the greater cold Seeds, of each one dram, of the Milk of sweet Almonds one pint, also milk Boyled with Rice. If Milk be not thought convenient, *Barley Hulled*, and with the broth of a Cock reduced into a Cream. Distilled Medicaments are not here approved of, because that their Nutritive faculty doth not transcend the Alembick. IV. The Removal of the Feaver by those things that cool and moisten. V. The Depulsion of the Extenuation by those things that have in them a power restorative; And here Pulvises of Milk, the Yolks of Eggs, fresh Butter, Sugar, and the meal or flour of Barley and Rice, have their place. Then let a Bath of warm Milk be made for the sick person; after which let a Rosted pullet that hath been fattened with Milk succeed; and then the distilled liquor of *Snails*, and the *Aqua Mirabilis*, of which we may see more in *Zacutus* his Eight Book. VI. The Nervion of the whole Nocturnal Colliquation by Sudorificks or Sweats. Then in the evening we must administer the Conserve of Red Roses, with the Syrup of Poppy, of Jujubes, and *Diacodium*. The Breast and the Back-bone are to be anoynted, and a Liniment Resumptive (as Practitioners call it) with the Oyl of Roses and Violets, &c. The Phthisis is divided in a twofold manner, according to the quality and condition of the Causes, and its Duration.

I. One is from Blood, which being got forth into the Lungs, there clotteth and putrefieth. And in this (if all things else be answerable) Phlebotomy hath its due place, in the very beginning thereof.

Another from a sharp Humor, whether it be Serous or Choleric, which is either sent from the Head, (neither may it be cast forth by Coughing; and then the Cure is to be ordered according to the Nature of the Catarrh) or else it is poured forth from the Heart into the Lungs; or else it regurgitates from the suppressed Courses or Hemorrhoids; and then the Cure must be sought for in its own proper place.

Another, but that is very rare, from Sweet
Flegm,

Plegm, if in too great abundance it flow unto the lungs, obstruct the lappits thereof, render the substance thereof over moist, and there putrefie, by reason of its long abode there, and for want of Ventilation.

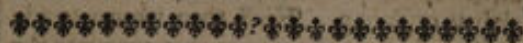
Another from *Pus* or corrupt stinking matter, upon the breaking of the impostum of the *Quinsie*, of the *Uvula*, the *Pleurisie*, &c. And hence is that of *Hippocrates*, those (saith he) that after a *Pleurisie* happen to be impostumated, if in forty daies they be not freed thereof they then become *Phycifical*.

Another by *Contagion* from the breath of the *Phycifical*; and hereunto belongeth that of the *Sea hare*, corroding and eating through the *Lungs* by its specifical Poysonous quality; and likewise the breath and stench of *Cats* and *Dogs*, sent forth especially in the dissection and opening of them.

II. One is *Recent*, and but newly begun; in which the Symptoms are not so strong and Violent.

Another such as is confirmed, and of a long continuance, in which the *Cheeks* wax black or of a *Leaden* color, with a *Paleness* in the *Face*, although (*I grant*) at sometimes the *Cheeks*, by Reason of *Vapors* ascending from the *Lungs*, may appear to be of something a red color. The *Breath*, (by reason of the imbecility of the breathing Faculty, or the obstruction of the *Bronchia*, (we call them the *Lappets* of the *Lungs*) either from store of purulent matter sent thither, or else from the many Excrements that in the weakened *Lungs* are gathered together and heaped up) becometh very difficult, and is hardly drawn. The *Pulses* are one while languid and slow, another while quick and swift; one while hard, by Reason of the dryness of the *Body*; and another while soft, in regard of the *Humid* matter moistening the *Arteries*. *Sweats* in great abundance break forth in the time of sleep by reason of the debility of the natural Faculty. And at length the Malady having now gotten the upper hand, certain smal parcels and portions of the putrefied *Lungs* are cast forth, with an intolerable strength. The *Hair* of the *Head* sheddeth and falleth off, by Reason of the defect and want of *Aliment*, and the Corruption of that that is bred in the *Body*. The *Nails* become *Crooked*, that *Flesh* that was wont to be at the *Fingers* ends being consumed. A *Smal sort* of *Lice* are generated, in regard of the Corruption of the *Aliment*. The *Extream* parts, especially the *Feet*, by reason of the extinction of the *Native heat*, are much swol-

len. And at length the Flux *Diarrhoea* (together with a suppression of the *Spittle*) followeth upon it, from the weakness of the retentive Faculty of the *Stomack* and the *Intestines*. See further in *Freytagius*, touching the *Phtisis*.



Title, V. Of the Diseases of the Thorax or Breast.

Chap. I. Of the Inflammation of the Mediastine, or the Transverse Muscle, and the Tumors of the Diaphragm.

THE Diseases of the Thorax or Chest, are, the Inflammation of the Mediastine, the Swelling of the Diaphragme, the Pleurisie, the Empyema or Constipation, the Consumption or wasting of the Back, and the Worms of the Back.

I. The Inflammation of the Mediastin, (that disjoyneth the Lobes of the Lungs) is known by the continual Fever, the frequent thick and swift breathing, an extream and intense burning in the Breast, a smal pain at the stern, unto which the Mediastine is tyed, and by the spitting and casting forth of that that is at first red, and then afterward Yellow. But the matter that is thus cast up (because that it is gathered together betwixt a double Membrane, as it were, and is not easily Evacuated, unless the said Membrane be eaten through) is not in any great abundance. It ariseth from the Blood, and chiefly the Choleric. It is Cured after the manner of other Inflammations. Where take notice, that the Repressing Medicaments ought indeed, to be cold, but no way astringent; and that in this Case the Oyl of Violets is chiefly approved of; which must be made blood warm (unless it be in the summer time) and the Breast therewith anoynted.

II. The Tumors or swellings of the Diaphragm are of two sorts.

Some of them are Cold, which are known by the difficulty of Breathing, the stretching out of the hypochondria, &c yet no swelling appearing in them upon the touch, and no deliry or dotage

accompanying it. *They arise* from a matter that is crude and thin, penetrating into the thickness of the diaphragme, either from the compression or wounding thereof. *They are hardly Cured*, if they be of long standing, in regard they bring the sick person to a consumption: but *more easily*, if they be Recent and newly begun: but not at all, if there follow a deliry or doting. *First* then we are to administer those medicaments that evacuate the prepared matter among which those we term *Hydragoga* or water purgers, are especially commended) and *afterward* with those things that mollify and digest; and chiefly *Sarsaparilla*, unless the humor hath begun to be hardened.

Others are hot, which *are known* (in their *first rising*) by a fever that is both continual and acute, a pain, the breathing little, but often, the extension of the *Præcordia*, a palpitation or panting near unto the diaphragm, and sometimes a kind of leaping in that place: (in the *Progress*) by the doting that attendeth it, the unequal Respiration or breathing, being sometimes smal and sometimes great; swift, and as soon again altogether as slow and rare. *They arise*, from a blood hot and choleric. *The Cure is difficult*, in regard of the extreame peril therein. It likewise resembleth the inflammation of the Lungs.

Chap: 2. Of the Pleuresy.

THe *Pleurisie* is an inflammation of the *Pleura Membrane*, and the adjacent muscles, arising from the influx (or flowing) of a hot humor, with a pricking pain of the side, a Cough difficult breathing, a continual acute Fever, a hard pulse, unequal, and frequent.

The **SIGNS** *Pathognomick* (as we call them) are, an extreame *pricking pain*, because the aforesaid membran (which we call *pleura*) being of a most exquisite sence, is extended by a sharp matter. A *Puls* that is hard, unequal, and bearing a kind of resemblance with a Saw, in regard that the part that is inflamed is Nervous. A *Cough*, by reason of irritation and transudation, (to use the terms of practitioners) which in the beginning is dry, but in the progress adjoined with and attended by a spittle that is bloody and purulent. A *Breathing* frequent and but very weak and smal, in regard that the muscles (by reason of the ex-

treame pricking pain) cannot be sufficiently dilated. An *acut feaver*, in regard that the inflammation is so neerly neighboring unto the Heart. And all these signs ought to conspire and meet all together, and not to be present in a scattering manner, one after another.

The **CAUSE** is an extreame hot matter; or blood, either pure, or impure which floweth forth especially out of the *vena cava* (or great hollow vein adjoining to the heart by the Branch that is termed *Aquas*, into the little thin stems and sprigs thereof; which being opened, broken or the pores thereof dilated, it runneth violently into the *plura membran*; and sometimes it likewise rusheth thereunto through the upper *intercostal membran*; but more rarely, through, the thoracical, and that we term *mamaria*. The Supply of the aforesaid blood is from a *Plethora*, *Cacoehymy*, and the overgreat heat of the Sanguifying bowels. It is promoted and furthered by various external Causes, and chiefly a sudden chilling, and cooling, cold northern blast after the great and warm south wind, over much and violent exercise, &c.

There is *good hope of a CURE*; if the spittle receive a mature and speedy concoction, and be easily and fitly cast forth; and if on the fourth day the sick person spit forth that that is white, light, equal, and this by coughing three or four times be terminated on the seventh day, and if on the seventh, that then it be not extended beyond the leventh or foreteent day at the furthest; if on the critical day there happen a flux of blood out of the nostrils, the Hemorrhoids, or the womb, with signs of Concoction; if (which is indeed very rare) there chance a *Metastasis* or translation of the matter unto the joynts and the members of less account. It is *doubtful*, if there be spit forth only thin *Ichores*, (which are a sort of little ulcers) if yellow choller very much mingled with spittle, appear long after the beginning, in regard that hereby is signified that nature attempteth nothing against the disease. If the Spittle be yellow, sincere, and mingled with much watterishness; if the said spittle be Glutinous and Clammy, because this clammy quality is contracted from a burning and scorching heat; if it be full of a green rustiness and very frothy; if it be black, because hereby is signified the pravity of the humor; and the extinction of the native heat; if striving much by reaching doth not stay the Cough, and facilitate the Breathing, because hereby is manifested either the Malignity of the matter; or the

the weaknes of the expulsive faculty; it after fourteen dayes it turne into the *Empyema*; if it degenerate into the *Peripneumonia* or inflammation of the Lungs; if it befall aged persons, because that through the want of heat the matter is not concocted; if it happen to those that have thick bodies, and that are accustomed to exercise, all things else being thereunto answerable. *No hopes at all*, if in it there be nothing spit forth; if the pulse be hard, little and by reason of heat very thick, and most frequent; if there happen (in the beginning thereof) a flux of blood, without any alleviation or ease, in regard that in this case the patient most usually dyeth on the fourth day; if the pleuresie be so great, that the liver and the stomach be likewise drawn into a consent and fellow suffering, and that also the flux *diarrhœa* follow upon it; if the pleuresie invade a Cachectical Body, after some other long continued disease; if from the spittle there arise a noise and much ratteling in the breast, and that the continuance be dejected; and the eyes veiled and blind with mists and darknes, or, (as many times it is) with the yellow Jaundis. The Cure (when we set upon it) *hath respect*. I. Unto the *humors* already *flown* in, and likewise to those that are like to succeed and follow, which are to be drawn back. II. Those that are at *present flowing*, which are not to be intercepted, neither driven back, but derived. III. Those that are *impacted* and stuffed up in the part affected, which are to be dispersed and scattered, or removed by any manner of means. IV. The *Pain*, which is to be mitigated. V. The *Feaver*, which is to be kept under and moderated. VI. And lastly, the natural vigour and *powers* of the Body, which are to be Corroborated. Touching all these, let what followeth be well observed. 1. That *Venesectiion* is with all speed to be administered, on the opposite side, for repulsion, if the body be Plethorical; if it be not directly on the side affected. 2. That if the courses or the *Hæmorrhoids* be suddenly suppressed, then the evacuation is in the first place to be out of the ankle vein, or that of the Ham; but if the suppression hath been of long continuance, out of the arm vein. 3. That in derivation, the blood is to be drawn forth so long, as until the color of it be changed. 4. That fomentations may be administered (to moderate the *pain*) in a body that is not Plethorical, yea even before Phlebotomy; but not so when the Body of the patient is Plethorical. And for this end and purpose excellent good is the Unguent made of dialthea,

or of *Marshmallows*, one ounce thereof, and half an ounce of the oyl of sweet Almonds, with the pained parts ought to be all over anointed, and upon it the fine small powder of *Camomile flowers* is to be lightly strewed, and then the leaf of a Colwort or Cabbage anoynted with Butter or hog's fat is to be laid upon it very hot (and this is to be continually done during the whole time of the cure) adding likewise a little of the distilled oyl of dil Champhyre. 5. That forthwith in the very first beginning a sweat may very fitly and properly be raised and excited, by exhibiting, either of the water of the *Poppy Roses*, three ounces thereof, with one dram of the powder of *Corral*, red Filberds, the Jaws of the Luce-fish or Pike; or else of the *simple Mixture*, one dram, with the water of *Cardus Maria*, or of the *Spirit of Nitre*, with the *Spirit of Wine*, of each one scruple, the *Spirit of Tartar* half a scruple, in the water of *Poppy Roses*, or else the simple water thereof, &c. 6. That *pectoral decoctions* (together with their appropriates) are continually to be administered, (after the premizing of universals) that so the spitting may be facilitated. 7. That these following have in them a *Specificall* propriety of operation, to wit, the flower of the *wild poppy*, of the *dry dock*, and of the white *Eglenine* or *sweet Briar*, the seed of *Cardus Maria*, the Bulls pizzle, or the pizzle of the Hart or Stag, the shavings of the Boars tooth &c. (see *Petræus*) All which are to be made into a very fine powder, and then to be put upon bread that hath been well dipt in *Scabious* water. 8. That the *impostume* may best be broken with a Cataplasm of the *herb kaly*, the roots of the *White lily* while they are new and fresh &c. applied unto the side that is payned. 9. That after all those aforesaid, *Chalybeated milk* (unless a Feaver hinder it) is the best.

As touching the differences.

I. One is (as we may term it) *Legitimate* and exquisite, (unto the which only whatever was sayd before, as to this poynt, is to be referred, and understood thereof) which. 1. *ariseth* either from *blood* that is pure; (in which there is a bloody spittle, an extension of the veins about the Temples and the forehead, with a sense of heaviness neer about the hollow of the Eyes, & the fore parts of the head) or else from a *blood* that is *Cholerick*; (in which the spittle is yellow; and which if it suddenly vanish without any apparent cause, the sick person is immediately surpris'd with dotage; It is best and soonest of all cured by opening the salvatel-

la vein) or thirdly from a *Pblegmatick* blood, (in which the spittle is frothy, more flow, and as it were sweet, the Syrup of *Zacutus* in the Eight Book, Chap. 3. of his History, is very efficacious in this kind) or else, lastly, from a *Melanboly* blood, which very rarely happeneth by way of afflux. II. It affecteth either the *interior tunicle* (and then the sick person doth with the more ease lie and rest upon the grieved side; in regard that now the tumor is not immediately under it, neither doth it in this case distend the grieved part) or else the *Exterior*, about the bones, (and then the case is quite contrary unto the former) or otherwise both of them, and then the patient lying upon the back is the freer from pain. III. It affecteth either the *right* or the *left side*; or the *superior part* extending it self to the throat, or else the *inferior* reaching even unto the *Hypochondria*.

II. Another is *bastard*, and spurious, which is distinguished according to the quality of the matter, and the manner of its situation. One is from *Windiness* (in which the pain is not fixed, but runneth from place to place; it is mitigated, and oftentimes wholly dispelled by fomentations; there went before causes generating windiness; the powder of Cummin sprinkled and strewed upon a Cabbage leaf anointed or spread over with butter, and outwardly applied unto the pained part, is very successful in giving ease;) Another from a *distillation*, which hath with it a sense and feeling of a defluxion, or something at certain times falling down; it is exasperated by being touched, neither doth it any whit yield unto fomentations; the cure is to proceed according to that of a thin catarrh. Another is *externally* when the blood thorow the branches (from the *Axillaris ramus*) is emptied forth into the External Muscles of the Thorax; and then the pain waxeth very intolerable upon the pressure thereof; lying down upon the grieved side is extremely troublesome; there is in this case nothing cast forth by spitting, and the transition or passing over of it into that which above we termed *Vera*, or the true and exquisite *Plurisy*, is very facile and easy.

Chap. 3. Of Empyema.

Empyema is the Constipation of the Cavity of the Thorax or Breast from an abundant purulent matter, causing and producing a difficulty of breathing with a Cough and a purulent or rotten spitting.

The Subject is the Cavity and capacity of the Thorax being that void space betwixt the Thorax and the Lungs; albeit the Lungs themselves and the vessels thereof may not here be altogether excluded. But now indeed, because that the Lungs by the Mediastine is divided into two parts, the Pus is collected either in the one or the other part, or else in both of them together.

The Signs are a difficulty of breathing with a spitting, and a perpetual purulent Coughing; a sense and feeling of a heavy and dul pain in the bottom of the Thorax and especially neer about the diaphragm; a redness of the Cheeks, and that chiefly about three or four hours after meals &c.

The Cause is that very purulent filth it self filling up the Thorax; the abundance whereof together with its stinking smell, and acrimony, inflicteth very sad and grievous pain and mischief.

There is some hope of a cure, if upon the opening or burning, there flow forth a white Pus or corruption; if it be rather on the right side than the left, and that the Patient be strong and able; *No hopes*, if the whole Thorax be lifted up in the breathing, if the whole cavity be possessed; if the left side; if upon the lancing or burning of it, that which issueth forth be somewhat bloody, and ill savored; if upon the same occasion Pus or filth, or else a water flow forth generally and in a great quantity; if in them the searching instrument or probe be colored by the Pus and filth like as by the fire. It respecteth, I. The *Concoction* of the suppuration. II. The *breaking* of the *Impostume*, which is effected by the eating of salt meats, by frequent retchings and spittings &c. III. The *Evacuation* of the Pus or matter; where we are to have eye upon nature's motion and which way she tendeth, to wit, whether upwards, or downwards unto the intestines, or the bladder. The spittle may be notably procured by the oyl of *Sulphur* and the spirit of *Turpentine*, pectoral decoctions being therewith well mingled. There is likewise much commended the juice of *ground ivy*, of *Horehound*, made up into a lozock with *Myrrh*, *Frankincense*, *diapenid*: Touching the decoction of *Ebony*, and the Syrup of *shel Crabs*, see more in *Zacutus* his 8. Book, Chap. xi. If these prevail nothing, we ought then to proceed unto *Section* or lancing, and also to *burning*; touching which consult those Authors that have written upon this subject.

As

have spoken before. It is wont likewise to fail by Reason of extreame dryness, (although this very rarely happen) when the Substance of the Lungs by an Ulcer is so consumed or dried away, that it can now no longer be dilated; and this sometimes chanceth unto those that are Phtisical, before they dye. II. Another is *Essentially* such; and unto this, what hath hitherto been spoken doth properly belong. Another by the *Consent* and greement, 1. Of the *Thorax*, whose motion is hindered by the fault either of the *Spirits*, or of the *Muscles*. 2. Of the *Diaphragm*, whose motion is hindered, either because the *Nerves* inserted and implanted therein are hurt; or else because the *Vapors* exhaling from the inferior parts reside and settle neer about the said *Diaphragm*; or else lastly, because that a *Waterish* humor presseth it down, &c. 3. Of the *Liver*, *Spleen*, and *Stomach*, which sometimes are distended, and swoll. III. One is *Lighter* or less, in which the breathing is thicker and more frequent, yet without any noise or panting, and of this must be understood what hath been already said. Another is more sad and *Grievous*, which we cal *Asthma*; touching which more anon.

IV. *Apnoea*, or the taking away of all sensible Respiration, accompanied with an extreame great danger of Suffocation. It ariseth, partly from the very same Causes, peccant in the highest degree; and partly from the Contrary, to wit, Necessity deminished, or the life taken away. It happeneth somtimes after the eating of *Mushrooms*; and sometimes in the most sad and grievous suffocation of the womb, and likewise in the *Syncope* or swooning fits. The Cure is to be ordered according to the Causes and the Diseases; touching which elsewhere.

Chap. 2. Of Asthma.

Asthma is a frequent, thick, and short Respiration or fetching of the Breath, proceeding from the pertinacious either obstruction or Compression of the Lappets of the Lungs.

The SIGNS of the beginning hereof, are, the heaviness of the Breast, difficult breathing in running or going up a steep place, hoarseness, a Cough, and a windiness in the *Præcordia*, &c. The Signs of one present are already expressed in the Definition. There is present now and then a Fever, as also a certain

ratling noise or Wheezing, in regard that sometimes the matter sticketh fast in the foldings of the Rough Artery, which when it is expelled by the breath, there is the aforesaid sound and noise excited; and sometimes without them, in the smooth Arteries. The drawing in of the Breath is here more difficult than the expiration or Putting it forth. For whenas in taking in the breath, neither the Lungs, by Reason of the store of matter, nor the Thorax, by Reason of the imbecillity of its motion, can easily be moved; Nature interposing, endeavoreth as it were by rest and quietness to cherish and repair the weakened and dejected powers; but in Expiration or breathing forth the Organs and instruments of that work fall down and so give way of their own accord.

The CAUSE is the Obstruction and compression as wel of the Rough Arteries as of the Smooth, of which we have spoken above; and from what causes it proceedeth we shall declare in that which followeth.

The CURE hath respect unto the Causes; and it is something *Difficult*, if the sick persons be aged. There is but *small Hope*, if the sick person be thereby rendered *Gibbous*, and caused to go stooping with the back bunching out; because that in these the Lungs growing, and the Spina not growing nor increasing, in the straightness of the Breast the heart is stifled and smothered; if it be with an acute Fever, in regard that the Cause of the Asthma being dried up by the Feverish heat, is thereby tendered and made the more unfit and unable to eject and cast forth that which offendeth upon the ceasing of the Cough, the difficulty of breathing still remaineth; if the strength be much weakened, because then they soon fall into the *Syncope* or swooning fits.

The Differences are taken, partly from Causes obstructing and compressing, and partly from the accessions, and other the like Causes.

I. One is from a *Viscid* or *Clammy Humor* stuffing up the Lappets; which may be known by this, that the breathing forth is *Difficult*, and with a sound, as it were, and a noise, together with a *Wheezing Cough*. It is Cured, 1. By opening the *Basilick Vein*, if nothing hinder. 2. By cutting and dividing the matter by those Medicaments that moderately cut and divide, and that have in them humidity, to moisten; but these ought to be often changed, lest that other wise Nature should be too much accustomed

accustomed thereunto. For the purpose aforesaid there is commended the Oyl of *Angelica*, the Syrup of *Nicotiana*, or Tobacco, and that Syrup of *Theodatus* in his Pantheon Hygiasticon; the Decoction of *Joel*, of *Zedoary*, *Gum Ammoniack*, the *Flower of Brimstone*, and *Saffron*; the Oyl of *Sugar of Grulingius*, and *Petrus* in his *Nofology*; the Secret of *Frytagius*, in his *Aurora Medicorum*; *Oxymel Scillitick* with the Syrup of *Violets*, &c. 3. By Evacuation, with the *Asibmatick powder of Rulandus*. 4. By Exiccation, with *Guajacum*, *Saffras*, &c. The Humor is divided into that that is Collected in the *Lungs*, (and the sick person by degrees beginneth to breath with difficulty and much ado and this difficulty is continual) and into that which floweth unto it from elsewhere, and then it is not wholly continual; the Exacerbations thereof are manifest. And here all those things that have in them a purging quality are to be shunned and avoided, because they are not without danger.

II. One is from a ferous and *Wbeyish Humor*, waxing hot in the greater branches of the *Vena Cava*, and rushing altogether and violently through the right ventricle of the Heart into the *Lungs*, and pressing down the Arterie; and this is most frequent. It proceedeth chiefly from the *Liver*; and hence it is that the Feet of the Asthmatick person do swell by reason of the weakness of the said *Liver*; the humors in the first place rushing unto the *Lungs*, by their falling to the *Kidneys*, excite and Cause a difficulty & stoppage of the *Urine*, *Ructures* or sour belchings, and windiness in the *Præcordia* are accounted to be in the number, and among the signs thereof.

III. Another is from a little *Crude* or raw *Swelling*, that we term *Grando*, and smal stones and *Gravel*; touching which we have treated above, in the streightness of the *Lungs*.

IV. One is more light, gentle, and moderate, with a snorting, Noise, and a violent Cough, the *Diaphragm*, and the *Intercostal Muscles*, yea likewise the *Muscles of the Abdomen*, affording the assistance herein. Another there is more grievous, (we call it *Orthopnea*) in the which the breathing is very little, thick, and exceeding swift, which is not performed but with the breast and Neck straitly erected, the Superior Muscles of the Breast and the shoulders likewise contributing their help and assistance.

V. One is Not *Periodical*, and that obser-

vethe not its *Paroxysms*. Another is *Periodical*, when the Humor either of its own proper Nature extendeth it self and seeketh for more space and room, or otherwise is driven and chased up and down by *External Causes*, if it be there collected, or else at the certain and wonted time it floweth hither from some other place. Those exacerbations are wont to be chiefly in the *Winter*, or in *Autumn*, because the matter is *Flegmatick*; and in the *Night-time*, because it is then moved according to the Motion of the *Moon*, and this usually every fourth day. This may be greatly Remedied (other things not omitted or neglected) either with a Scruple of *Saffron in Malnsie*, and given hot, or with *Brumerius* his smal Potion, made of a dram of *Ammoniacum*, *Hyssop water* four ounces, and two ounces of *Rbenish Wine*. [Read more of this subject in the *Guide to Physick and Chyrurgery*, *Riverius* Practice of Physick, and his Observations; and the *London Dispensatory*. All of the last Editions, Englished by me.]

Chap. 3. Of the Cough.

The Cough is a vehement, thick, and loud Efflation or Blowing forth of great store of breath (together and at once) that was first attracted and drawn in by the *Lungs*, Caused by the swift Contraction of the *Lungs* and the *Thorax*, that so what ever is burthensom and Grievous unto the Organs of breathing, may be expelled and shaken forth.

In a Symptom so evident, there need no SIGNS at all.

The CAUSE is, whatever may affect the *Lungs*, the *Rough Artery*, and that Membrane wherewith it is encompassed, and as it were swathed about within, whether this be something External, or else a Humor, or a Vapor, &c.

The CURE either respecteth the Cause, from whence it ariseth; or the Cough it self, if it be vehement; which is either mitigated by Lenifiers or Anodynes or else is wholly taken away by those Medicaments that stupefie and Dul the sense and feeling, as for instance, the Syrup of Poppy, *Diacodium*, Treacle fresh and new, &c.

The Differences of the Cough are Various.

I. One is from *External Causes*, as a Cold Air, the Vapors of Live things Rank, and musty,

musty, as likewise such things as are Oily and Fat; a vehement Scratching of the Ears, from whence there ariseth a very painful affect of the Nervous parts; which yet is the less violent, if it proceed not from something fallen into the *Trachæa* or the great rough Artery; and it is then also less dangerous. It is Cured, if the Cause be taken away; if it proceed from Cold, then it is Cured by the meet restraining and keeping in of the breath.

Another is from *Causes internal*, to wit. I. a *Humor*, which 1. Either is *viscous* and clammy; (and then there is nothing or very little spit forth) after Coughing, if it hath conjoynd with it a cold temper and constitution, it is then the stronger and the more violent. It is cured (Universals first premized) by those Medicaments that cut and expectorate. Among purging Remedies, *dilutum Agarici* (as Practitioners term it) with a little *oxymel Scillitick*, is of singular use and benefit. Among those things that cut and expectorate, the *Bechicall Aquavivæ* of Joel, the *Liquor of Sugar* of Hartman, the *Elixir Proprietatis*, from six drops, to twelve. 2. Or else such as is *thin*; and then there is nothing spit forth, because that in the very spitting of it forth, it is so dispersed and divided by the breath, that it falleth back upon the Lungs; it hath for the most part a hot temperament and constitution, and likewise a Catarrh Joyned with it, and attending it. The Matter purifying inwardly, exciteth, either a Purrid fever, or an Hectick fever, or an Ulcer. It is cured (after that General and Universal remedies have been first made use of) by those things that increasate or thicken, and lenify; such as are, the Syrup of Jujubes; the Syrup of Poppy *rheas*, diatragacanth; frigid, &c. 3. Or else it is contained *in the lungs*, (and then a due regard ought to be had unto the distemper) or else it floweth thereunto from *some other parts* as the *Brain* in a Catarrh, and here there will evermore be present the signs of a Catarrh; the Cough, in aged persons is more vehement and of longer continuance, because that it is not maturated and ripened, and therefore the more dangerous; if it be frequent and long lasting it bringeth at length to the spitting of blood: or else from the *inferior parts*, as in the dropsey, the inflammation of the spleen, the liver, and the stomach, &c. II. From a *Vapor* which either obstructeth the Lungs, or else hurtech the membrane; and then for the most part, the vapor is sent thereunto from other parts, and diseases; the Cough is dry, and some-

times a little irritating; and it usually happeneth when the patient either speaketh, or gapech much; In the cure we are to deal with those things that remove the cause sending the vapors; and likewise to endeavor the driving back, and the Revulsion of the vapor; &c. It happeneth either in *Fevers*, (which shew that the Paroxysm is now nigh at hand, and forewarneth that impostumations are like soon to follow; and if it remain after the termination and ceasing of the Fever, it then threatneth the danger of a Recidivation or Relapie;) or else in the wringing pain of the Guts by worms (we call this Affect *Bermia*) which either by impulle of putrid vapors unto the Lungs, or else by the twinging and gnawing of the Membrane of the *Oesophagus*, which draweth the Membrane encompassing the rough artery into a consent and agreement with it; and it discovereth it self by the signs and tokens of Worms. III. From *Pus* or Corrupt matter which chanceth in the Phthisis, Peripneumony, Pelurety, the wound and inflammation of the diaphragm &c. IV. From a little swelling, or (as we terme it) *Tuberculum* that is *Crude* and raw, from *Grando*, &c.

II. One is *dry*, in which there is nothing cast forth by Coughing; either by the fault of the faculty, or the Matter. Another is *Humid* or *Moyst* in which something is ejected and cast forth.

Both these are either *Recent* and newly begun (this properly termed *Cerchnos*, in which there is only a light and gentle propension to Coughing continually afflicting the sick person, not much unlike unto the Nauseousnets of the stomach that goeth before Vomiting; and this is sometime removed and ceased by the alone holding of in the breath for a while) or else it is *inveterate* and old, bringing along with it more grievous symptoms.

III. One is *Periodical*, which twice or thrice in the year, by certain intervals, afflictech the Patient; and most usually proceedeth from a distillation suddenly and violently rushing in.

Another, which either *continually*, or at least with very *little intermission*, troublech and even wearyeth the Party; which hath for its Cause either a vicious affection of the lungs, some old obstruction, or in a word, some other fixed and rooted internal Cause.

Chap. IV. Of Hemoptysis, or Spitting of Blood.

Hemoptysis is the Rejection and casting forth of blood (together with a Cough) from out of those parts that are destined and ordained for Respiration and breathing, happening unto them without any inflammation of the aforesaid parts.

There is no need of Signs, in regard that the Affect is apparent unto the sight.

The Cause is, whatsoever dissolveth the unity of the veins, whether this happen by means of Anastomosis, or a Dierefis, and a Diapedesis.

The Cure consisteth in stanching the blood, and stopping the bleeding; and it especially hath respect unto the Causes. Observe in it, that there ought to be a revulsion made by opening a Vein in the Arm; or otherwise, in the Ankle, if there be present a suppression of the Monthly Courses; and likewise that the ill quality of the blood is to be tempered and qualified; that the purgers are not to be hot, neither strong and forcible, that the inflammation in that part from whence the blood issueth forth is to be speedily averted and turned away that the clods of blood are to be dissolved, and this to be effected not with vinegar alone; that before ever we make use of remedies that avert and turn aside, we ought to forbear Astringents or those things that stay and stop the blood; that Cold topicks must be carefully avoyded. Among those Remedies that stanch and stop, there is especially commended Centinody, boyled in broth, and applied unto the parts; the powder of Scaliger; of which see more in Petreus his Nosology.

The differences are taken from the Causes, and the parts.

I. One is from the Anastomosis of the veins; Another from the Dierefis; and a third from the diapedesis of the veins; touching all which see further in the Chapter of the Hemorrhage, or bleeding of the Nostrils.

II. One is from the Brain transmitting and sending it, which is known by this, that the blood is little or nothing frothy, rejected and cast forth sometimes by retching, and with a cough; that there is a heavy pain in the Head; that the veins in the forehead are ela-

ted and strut out; it is known also by the frequent retching and stretching, and the sense of heat, and the tast, as it were, of blood. Gargarismes are here of singular use.

Another from the Jaws which is known by retching, the solution of Continuity, which is very evident and conspicuous when the tongue is pressed down; which said solution discovereth even the Gums and the parts of the mouth, with a simple expuition, the Party spitting forth nothing but what is simple and unmixed. It is taken away by a Gargarism of the rinds of the roots of the wildsloe trees, sumach &c.

Another from the Throat, in which there is cast forth blood, with a frequent, smal, and easy Cough, together with a pain of the Larynx.

Another from the Rough Artery, in which there issueth forth a smal quantity of blood, that is red and hot; sometimes with smal strings cast forth together with a gentle cough, and some kind of pain in the part affected.

Another from the Thorax, or Breast; in which the blood is little or nothing frothy, but blackish, and clotty, sometimes stinking, and mingled with purulent matter; and it is ejected with a Coughing and pain. It is cured, 1. By opening the Hepatick vein of the right side, and the blood ought to be drawn forth by degrees, and often repetitions. 2. By Evacuation with Cholagogues or such Medicaments as in purging extract and draw forth Cholera. 3. By incrassation; where Trochisques of Crabs Claws, despodio, and de terra sigillata, or the sealed earth of Lemnos, &c. are much approved of.

Another from the Lungs, in which the blood is continually frothy, colored, hot, compact, accompanied with a Cough, and void of pain; and sometimes there is together with it rejected a smal quantity and portion of the said blood corrupted and putrefyed.

Another from the inferior parts, in which a little blood is cast up by vomit, together with a pain, and a bloody ejection, &c.

[Read more of this subject in the Guide to Physick and Chyrurgery, Riverius Practice of Physick, and his Observations; and the London Dispensatory. Al of the last Editions, Englished by me.]

Title, VII. Of the Affects of the Heart.

Chap. I. Of the Palpitation of the Heart.

THe principal affects of the Heart are, a Distemper, a Palpitation, and a Fainting or Swooning.

Touching the Distemper, (especially that which is hot) we have spoken already in the second Book. Concerning that which is moist, Cold, and dry, there is nothing singular that offereth it self to consideration, but what we may as well make mention of in the other Species and kinds thereof: and therefore we intend to treat only of those two sorts.

The Palpitation of the Heart is an inordinate, and (by its dilatation and contraction or setting it self) composed motion of the same, whilst it either expelleth that which is burthensome unto it, or else attracteth that that is requisite and profitable unto it, or else restoreth that that is Deficient and wanting.

It differeth from Tremor (or the Trembling of the Heart) in that this latter shifteth its place, but the former seateth and fixeth it self in one place alone, whether it be greater or less; this of the Moving faculty; that of the instruments; and it may happen unto those parts that are otherwise immovable.

The SIGNS are evident and manifest enough unto the very senses, to wit, the sight; the touch, and the Hearing. The Jugular Arteries are especially those that leap and Beat; and their pulse is unequal and inordinate.

The CAUSE is either any thing irritating the moving faculty, or else a necessity of refrigeration and cooling, by Reason of the hot distemper; or a Defect and want of the spirits, touching at which specially and particularly in the Differences,

The CURE is exceeding difficult, for the Disease is extremely perillous; it being very acute in each particular Paroxysm; but of long continuance, in regard of its intermitting, and frequent returns. If it proceed from the Coldness of the Heart, if it continue long, and

from yeer to yeer, and make many Recidivations, it then for the most part is terminated, and by a Syncope concludeth in Death. It Respecteth, I. The Paroxysm; in this Case the Fomentation of Balm and Borrage, the Water of the hearts of Animals (known in the shops by the Name of Aqua Excordibus Animalium) of Heurnius, and the Juyce of Mother wort, or (as we call it) succus Cardiacæ, &c. Have their due and proper place. II. To respecteth the Causes; touching which we will treat further in the Differences.

The Differences are taken from the Causes.

I. One is from a Vapor, or a Windiness, exciting and irritating the Expulsive Faculty of the Heart, which is known by this, that its approach and surprisal is sudden and unexpected; that it is excited by every light and gentle motion of the Body; and there often a Trembling seizeth upon the Knees, and a darkness and dimness upon the Eyes, &c. This, 1. Is either Collected there in that same place, being Resolved of a matter Old and thick and fixed in that same place, oftentimes with a Cold distemper, but more seldom with a hot; which if it be unequal, it then raiseth up many Vapors; and it is to be removed and quite taken away by opening the Vein either of the left or the right Arm, according as the Pulse and beating is in this or that more restless and unquiet; and especially if there be present, a Plethory, or overfulness of pure and good blood; by the application of Cupping-Glasses to the Thighs; by the removal of the Cause that is constantly and continually giving in supplies of matter; and moving it up and down, and from place to place, and likewise by the discussion of the said matter. And here there availeth much the Oyl of Citrons with some Conserve, the right and true Rhaponticum two scruples thereof given in Wine, the Confection of Alchernes, the Treacle Water with Camphire of Crollius. Or, 2. it is sent from the Inferior Parts, the Stomach, the Womb, the Hypochondria, &c. And then regard must be had unto those parts. 3. Or else it is Malignant and Poisonous, and then there is present an extraordinary vehemency of the Motion, which passeth into an inequality of all sorts, as also into a fainting of the Heart, and a Syncope or Swooning fits. In this case there is commended the Cordial of Crollius made of Gold, the Emulsion of Margarites with the water of Borrage and Cyundion; the Experiment of Thancius of red Cora. prepared

prepared, and Margarites dissolved in the water of lavender, by the impersion of the oyl of sulphur, or vitriol; the water of Cinnamon with the spirit of Juniper, &c. *Epithems* of *Alexipharmicks*. 4. Or else it is not poisonous; unto which those things above mentioned may fitly be applied.

II. One is from a humor, which is known by this, that its invasion is not altogether so sudden and unexpected, and that it continueth longer. And this is. I. Either waterish, having its residence in the *Pericardium*; which is not known but with much difficulty, albeit the malady be continual, and that the sick persons complain of the suffocation of the Heart. It is taken away by diacussives, as well such as are internal, as Treacle, Confection of alchermes, the Species of diambra; as those that are External, namely, hot Bread besprinkled with a cordial water, and applied to the region of the heart. Neither vesicatories, nor venesection are here to be made use of. Or else it is sent from some other parts, and by its weight either burtheneth too much the veins, Arteries, and the ventricles of the heart, so that it is thereby deprived of the freedom of its motion (as it hapeneth in wounds) great fear and terror, &c. or else by its quality it infecteth the same; which is especially wont to be done by Cholera dust, and terrified by excessive heat; and then there will be need of evacuations and revulsions. For the Cauteries, if we make use of any, there are no *cantharides* to be therewithal mingled, or put thereinto. Treacle outwardly applied (if the matter be cold) is here commended. 2. Or else it is not malignant; and of this what hath already been spoken ought to be understood: or else it is Malignant and poisonous, and then there is great variety in the Pulse, which chanceth especially in regard of the greatness and smallness thereof, &c.

III. One is from a Tumor, which if it be hot the inflammation in the Body will be so much the greater, and the breathing will be difficult: if the swelling be hard, and in the *Pericardium*, the motion is then continual, and the sick person wasteth and weareth away by degrees, and without any manifest Cause. The Cure is to be proceeded in according to that of a Tumor.

IV. From Worms, which are discovered by the Convulsion: for the whole and entire cure hereof, see in *Hartman*. The *Bexoar* stone is here of excellent use.

V. From the defect of Spirits, which is known by the foregoing of dissipating Causes. It is Cured by those things that Cheer and Comfort, as odoriferous wine, &c.

VI. From a hot Distemper; touching which the second Book is to be Consulted.

Chap. 2. Of Fainting or Swouning.

Fainting or Swouning is a sudden and Precipitate sayling of all the Spirits, and especially of the vital powers and strength, with a pulse much weakened, and almost totally abolished, as likewise with a cold sweat, arising from an extraordinary great weakness of the Heart, through the fault and defect of the vital spirits; of which those that remain retire also from the External parts of the Body unto the Centre, to wit, the Heart.

According to the diversity of the degrees of this sad affect, so are the names thereof various and different. *Eclusis* is a small and light fainting; *Leposimia* and *Leipopsychia* is that which is somewhat more greivous; and *Syncope* is the most sad and greivous of them all; which last, if it proceed so far, that the pulse or beating is abolished in the whole Body, it is then termed *Asphyxia*; the reason whereof shall be declared in its definition.

The Signs (and that first of the affect not yet present, but very neer approaching) are, especially in persons unaccustomed thereto an Anxiety that neither was nor indeed could be foreseen, a *vertigo* or twimming in the head, a representation, as it were, of strange and various Colors, an often reiterated change and alteration of the Pulse. The Signs of the Affect present, are, a sudden fall and failing of all the Powers of the Body, a Pulse most weak and obscure; and so it is distinguished from the *Apoplexy*, & the strangling of the womb, the Chills and Coldness of the whole Body, but more especially of the extrem parts, a cold sweat, and therefore termed *synoptick*, breaking forth, and chiefly in the temples, neck and Thorax; which if it be with an abolition of the Pulse it is then to be accounted a sign Pathognomick.

The CAUSE is a sudden sayling of the vital spirits, without which neither the heart, nor indeed any other part of the body can perform its actions; but as touching this we shall speak more fully in the differences.

There is *some hope* of a Cure, if it be only from the single or simple distemper of the heart; if it proceed from evident and apparent Causes; and if it be by Consent: There is no hope, if the patient fall often into these fainting fits, and that without any manifest cause; if it befall a weak body; if the sick person be not raised out of these fits after the sprinkling of Rose water upon his face, and the drinking of wine; nor yet even after *sneezing wort* hath been administered; if the heart primarily lie and labor under this affect; and lastly, if it affect those that are Feverish and (by reason of the great store of humors) with an inflammation of the stomach and the Liver. The Cure hath respect. 1. Unto the paroxysme; in the which the Spirits are to be refreshed and cheered with the vinegar of the *flowers of tunica* (a kind of Gilly-flowers) the vinegar of *Rue*, and of the *Elder Tree*; the balsam of *white Ambor*; and likewise by putting to the nostrils wine, *Rose water*, *Cinnamon water*; and carbuncle water, &c. When the disease is hot, then cooling Medicaments; but if the Affect be Cold, then those Remedies that heat and warm, are to be administered; and unto women those things that afford the most strong and stinking savour. Unto the Region of the Heart Epithems, and inunctions of *treacle*, *Mitridate*, and the oyl of *Citron*, are to be applied. *Wine* that is old and *odoriferous*, is here most efficacious. II. It respecteth the *intermission*; touching which more shall be sayd, now we are come in the next place to speak of the differences.

The Differences are taken from those Causes that produce a defect of the Spirits.

I. One is, that *Spirits are not generated*, either by reason of a defect of Matter, to wit, the blood overmuch evacuated, and the Air corrupted; or else by reason of some defect in the faculty, as well in regard of the more noted and considerable diseases of the Heart (whether they be from its distemper, or whether they be instrumental) as in regard of the Affects of the Brain and the Liver, yea likewise of the stomach and the womb; and of all these there ought to be a special and due regard had in the cure.

II. Another is from the *Dissipation* of those spirits that are generated and bred; which is caused. 1. by those *insensible evacuations*, that are either habitual, or else happen from the over great rarity and thinness of the skin: (and in this case we must have recourse unto perfumes and sweet smelling medicaments, and

to those kind of meats that afford a good and wholsom Juice, the skin is to be conduted and made thicker with the oyl of the mirtle tree, and with the oyl of Mastick) or else it is from the thinness of those things that are to be retained; and therefore here those meats that are not over fluid, and easily dissipated have their place, as being most fit and proper. 2. By *Evacuations* that are *sensible*, as well of the blood, as of other humors: (where Note, that these Evacuations are to be stopped; that the body ought not to be besprinkled with those things that are cold; that in a large and abundant sweat, only such things as close and bind the skin are to have any place or use) 3. By diseases, as overmuch want of rest and sleep; (of which enough before) a vehement pain, the gnawing or pain of the stomach, the Colick pain, the Nephritick, or pain of the stone in the kidneyes or bladder, the pain of the Teeth, &c. a sudden breaking of an impostume; in which there may a restauration be made by restorative meats sweet smells, and rest. 4. By such things as are *evident* and apparent, as namely, extreme hunger, the immoderate use of venus, too much and over violent exercise, &c.

III. Another from the *alteration and corruption of the spirits*, (which is caused by a malignant matter, whether external or internal, as for instance, the rottenness of humors) poyson drunk and taken down, the biting of venomous Creatures, and then the Cure is to be sought for in its peculiar and proper place.

IV. Another from the *suffocation of the spirits*; which is caused, 1. By *overmuch blood*; and then there are present and appear signs of a plethory; and in this case the opening of the Basilick vein helpeth much. 2. A *humor* that is *Crude* and *thick*, very much abounding about the heart, and the veins and arteries thereof, the capsula (or purse of the heart) and the neer neighboring members; and this is either there collected, or else transmitted either from the head and other parts; and then the habit of the body is *Hydropical*, neither can the patient undergoe and bear either the opening of a vein, or purgation: Frictions or rubbings downwards, anoyntings with oyls that open and loosen, the use of *Oximel* with the decoction of other things that cut and divide, and fasting, (unless the pulse be suddenly changed and discover an extraordinary weakness) all these help and conduce much to a Recovery. 3. By *fuliginous vapours*, gathered together in great abundance about

whol Breasts or Paps Wax hard, and that the swelling so add hereunto the Thorax or Chest, that without extreame peril it may not be thence removed. Another by *Resolution*, in which the thinner part is dried up by preposterous Medicaments; and which *Galen* Cured by an Evaporation of the sharpest and sourest Vinegar, poured forth upon the *Pyrites* stone, (we cal it the fire stone) Red hot, but this was after the use of liquid and moystening Medicaments. In the *Curing* of them al, we must be sure that we have a special regard unto the Spleen, and the suppressed Courtes, and that Emollients and Resolvers succeed one the other, and be interchangably applied.

2. The Scirrhus not *Exquisite is known* by this, that the swelling is bigger than in a Cancer, of the color of Ashes, with an hardness, and the Veins thereof somewhat black and blewish in the outward parts; and that it sometimes vexeth the Party, especially upon the neer approaching of the Menstrua or Courtes. *It ariseth* from Black Choler mingled together with Melancholly, especially in such as are barren, or such which soon ceased their Child-bearing, or else, lastly, those that have altogether a suppression of their Termes, or monthly Courtes. In the *Curing* hereof, among the Repellers without astringtion, there is commended the Unguent of *Frogs*; of which see further in *Castrensis* his first Book of the Diseases of Women, Chapter, 21. See likewise touching the Manual Operation in the Same Author.

IV. A *Windy Tumor*, which is known by this, that the pain is very acute, especially in the left breast, with an Excruciating and torture of the Arm, the whol side, the Ribs, and the Shoulder blades. *It ariseth* from an Exhalation that is thick and drawn up from the Menstrua, or the Seed suppressed, or else from some other Excrements, and so extending the said Paps. In the *Cure* hereof, take notice, that a Linnen Cloath soaked in *Soapsuds*; or else wet in Water, and then dried, is commended for dissipation, and when there is occasion to disperse and Scatter; and that the Pain is wel mitigated with bread taken hot out of the Oven, and then moystened with the Oyl of *Nard*, the shops cal it *Oleum Nardinum*, and of *Rue*.

Article, II. Of the Cancer, and Greatness of the Paps.

I. The signs of the Cancer in the Breasts, as

also the Causes, and the Cure, may be known, and sufficiently understood by what hath been already said in the Second Book touching a Cancer. Let it suffice here only to add, I. That the Cancer that is not *Exulcerated* may be rendered and made more milde and gentle, if the Courtes being recalled return to their pristine state and condition, either by the Course and Vigor of Nature, or else by the assistance of Art, and the help of Medicaments; or else if the Body be preserved free from a *Cacochymy*, either by a good order of Diet, or else by Medicaments. There may likewise be applied unto it that Unguent that it compounded of *Lithargyrum*, two ounces thereof, in a Marble Mortar drawn about with a Leaden Pestle, and incorporated with *Rose-water* and the Oyl of *Roses*, of each three ounces. II. For the Cure of the Cancer *Exulcerated*, see in *Huriman*, who writeth that the said Cancer may be perfectly Cured with *Aqua Fuliginis* that hath in it a cleansing Faculty, and with the Oyl of *Arsenick fixed*, and wel tempered in *Plantane Water*.

II. The *Magnitude of the Paps* (unseemly as it is) is expoted unto the sight. *It ariseth* from the often handling and stroaking of them, and especially from the great abundance of Flatulency and windinets, the Retention of the Courtes, &c. The Cure hereof ought therefore to be Endeavored, because that by how much the greater and bigger they grow, but so much the more easily they may be affected with the Cancer. *It is performed*, 1. By *Meats* that are Astringent, but little or not at all flatulent or Windy. 2. By *Driving back* the blood, or other the Humors flowing unto them; and here the Juyce of Hemlock, and the Partridg Eggs, anoynted upon the place, are much approved of. 3. By the *Discussion* of that that is already gotten unto the part affected; for which purpose that Unguent that is compounded of the Dirt or Clay that is to be found in *Barbers Mills*, two ounces thereof, the Oyl of *Myrtle* one ounce, and Vinegar half an ounce, is much commended. 4. By the *Compression* of them by Artificial ones of Lead anoynted on the inside with the Oyl of the Seed of *Henbane*, &c.

Chap.

Chap. 2. Of the Symptomes of the Breasts.

Article, I. Of the want of Milk, too great abundance thereof, and its Coagulation or Curdling.

THe Symptomes of the Breasts are, the Defect, Redundance, and Coagulation of the Milk.

I. The Defect of Milk (according to the Nature of the Causes) is twofold.

For one is from a Fault in the Blood, which faileth by reason of Diseases that over dry the body; from a distemper in the Liver, from much fasting and Ipareness of Diet; and lastly, from extraordinary Evacuations; of al which there must be care taken in the Cure. Now to generate and breed Milk, these things following are experimentally found to be good, Namely *Crystall* prepared, the leaves, Roots, and Seed, of *Fennel*, while they are fresh and green; the powder of *Earth-worms* prepared, and taken in Wine, the *Electuary* of *Zacuthus*, in the Ninth Book of his Pract. Hist. and last Chapter.

Another is from something amiss in the Lactifical or Milk breeding Faculty, when it is so weak, that it can neither attract the blood, nor contract it, either by reason of External refrigerating Causes, and such as are likewise Astringent; or else by reason of other Diseases; unto which we ought to have due respect in the Cure.

II. The Redundance or over great store of Milk proceedeth from the abundance of blood, and a strong Lactifical Faculty. In the Cure, the Luxury and prodigality of Nature in the

breeding of Milk is to be restrained; and the Milk that exceedeth and is over and above, ought to be dissipated and dried up. For this purpose venesection in the first place, is approved of; and then driving back by Medicaments, which ought to be put upon the Paps, towards the Arms; And also those Medicaments that wast away and lessen the Milk, such as that they cal *Muria* (a kind of brinish Liquor, or Pickle) with the powder of *Cumin*, and *Hemlock* Boyled in Chervil Water and Vinegar, &c.

III. The Coagulation or Curdling of the Milk is then Caused, when the more thin and subtile parts do by little & little exhale, & the thicker remain behind; from whence the Glandules or Kernels wax hard, and swellings, yea and also impostumes arise. In this Case the Infant ought not to be suckled out of the Breasts affected; and yet notwithstanding the Milk is to be suckt out, lest that which is bred anew should be Curdled by that Milk that is already become (as it were) Cheese, and that part of the Curdled Milk that begins to be dissolved should putresie. For the Dissolving hereof, excellent good is that broth that is made of the stalks of the Herbs following, (together with an Ablution or washing of the Paps with Water, Wine, and Vinegar mingled together;) a Fomentation of the Decoction of *Marsh-Mallows*, *Penugreek*, and *Melilote*, &c. A Liniment laid thereupon of the Oyl of *Roses*, *Sweet Almonds*, the Juice of *Smallage* and *Parsly*, and *Vinegar*, in which there hath been first dissolved the Curd or Runnet of a Hare. The Water of *Hemlock* is thought to be good for both the foresaid Purposes.

And so much of the Diseases of the Chest or middle Region.

THE



THE
 TENTH BOOK
 OF THE
 IDEA
 OF
 PRACTICAL PHYSICK:

Concerning the Diseases of the lower Belly.

 Title, I. *Of the Affects of the Gullet.*

Chap. I. *Of the Diseases of the Gullet.*

 The Diseases of the lower venter comprehend under them the affects of the Gullet, stomach, Guts, Anus, Mesentery, Liver, Spleen, Kidneys, Bladder, Genital Parts in Men and Women, the Navel, and Belly.

The Diseases of the Gullet are, Distemper, Tumor, Straitness, Wounds and Ulcers.

Article, I. *Of the Distemper and Tumor of the Gullet.*

I. The Distemper of the Gullet is a recess-

on of it from its Native to a preternatural Temper: its known, by the swallowing being hurt. 'Tis divided into a hot one, which happens from without, from fumes, pouders, &c. from within; from Vapors in burning Fevers, a hot and dry Distemper of the Womb; and then there is perceived a Redness and Roughness on the Tongue, with thirst, which is cured by cooling means & somewhat cleansing.
 2. into a cold one, which either proceeds from too cold drink, or otherwise, and is taken away by things that heat. 3. Into a moist one, which issues from the Defluxions of catarrhes, Salivation, &c. and Causeth a Relaxation of the Gullet, so that the lower part of it, and the upper mowth of the Stomach lie open.
 4. Into a dry one, which ariseth from dry things and Causeth Roughness, and is Cured by supplings of Chicken Broth, or fresh butter.

II. A Tumor of the Gullet, is its excess in its Magnitude. 'Tis known by the pain in swallowing, most of al in the hinder part and back; by the stoppage in swallowing, so that

if a great bit be to be swallowed, sometimes the drink runs through the Nose; it proceeds from the same Causes, from which we said Tumors in general did arise. 'Tis often hard to cure, because it endangers Suffocation, but after the same manner as other tumors, viz. In the beginning by repling means, in the Augment by external and internal resolves, in the state by difficultes; let vomits be avoided for fear of suffocation, unless when tis come to suppuration that the Tumor ought to be broke. 'Tis divided. I. Into a *hot one*, with which is Joynd a Fever, great thirst, pain, in the Cure of which bleeding takes place: and into a *cold one*, in which the pain is less, and in the Cure of which the repellens ought to be gentle, the resolves and difficultes stronger. II. Into that *which possesses the upper part of the Gullet*, and then meat cannot go down, and into that *which infects the lower part*, and then the Meat after it hath descended a little way stops there.

Article, II. *Of the Straitness, wounds, and Ulcers of the Gullet.*

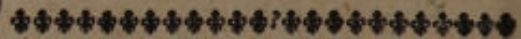
I. The *Straitness* of the Gullet is when its *Passage is Contracted*: 'tis known by this, that liquids are easier swallowed than solid things. 'Tis divided according to its Causes, for one is from *external Causes*, as from astringent medicines, or some things swallowed; and then the business is known from the standers by, or the Patient himself: it must be cast up by vomiting or Coughing; or furthered by moistning and Emollient means applied outwardly and inwardly; or be thrust down with a Sponge Dipt in Oyl of sweet Almonds, or taken out with that excellent Instrument of *Fabricius Hildanus*. Another Cause is from a *Tumor*, *Worms* ascending out of the Stomach and Guts; from *Scorbutical*, and *Hypochondriacal Vapors* distending the Gullet, and compressing the rough Artery; from the *Luxation* of the *Vettebræ* of the Neck and back, which may be seen in their proper place. *Another is from thick Flegm*, kurdled milke, &c. Sticking in it, where Oxy-mel of squils and vomits takes place.

II. The *Wounds* of the Gullet in respect of their Causes are twofold, for either they are Caused by a weapon, and then the situation of the wound shows it, if vomiting happen, somewhat is cast forth through it, and tis hardly Cured: Or from *some final bones* swallowed, and then tis easily manifest. Medicines that are grateful to the Stomach ought to be administered.

III. An *Ulcer* of the Gullet is known by the pain, when some sharp, sour, or Salt thing is swallowed though in little quantity, by its biting, and by the casting up of matter. 'Tis hard to be Cured because the parts will scarce grow together in a Membranous body. It hath its *Differences* from the Causes, for one is from external corroding things, as *Aqua Fortis*, *mercury Sublimate*; and then we must work with *Lenient Vomits*, and such as are clammy, as the Mucilage of quince Seeds, *Fer broths*; *Another* is from a wound, *Tumors*, *imposthums*, another from the casting up of sharp Humors, &c.

Chap. 2. *Of the Symptomes of the Gullet.*

Amongst the *Symptomes* of the Gullet, the Principal one is the *hurt of swallowing*, which is twofold: for one is by Reason of the resolution of the Gullet, the faculty being hurt, by Reason of the Resolution of the Nerves of the sixth or seventh Conjugation; its known by this, that solid things are easier swallowed than liquids, as being thrust down with less labor, for these require a greater force, to make them yeeld to the impulsive Body. It ariseth either from a *Defluxion*, and then there is felt a heaviness in the Head, a distension of the Neck, and the Rheum it self; or from some other Disease, tis dangerous, and ought to be cured by Medicines good against Palies: the *Second* is by Reason of *Convulsions*, which ariseth also from a wound, and tis most dangerous in old people. There is another from the affects of the part, of which we have treated formerly.



Title, II. *Of the affects of the Stomach.*

Chap. 1. *Of the Diseases of the Stomach.*

The *Affects* of the Stomach are either diseases, or Symptomes; to those belong *distempers*, *Tumors*, *wounds* and *Ulcers*, the other see hereafter.

Article,

Article, I. Of the Distemper of the Stomach in general.

The Distemper of the Stomach is a preternatural constitution of its similar Parts in the first qualities.

The SIGNS of that are the hurt appetite and concoction, a change in the Excrements, a heaviness in the Stomach, and waving of it, and distillations from the Head which most commonly happen.

The CAUSE is whatsoever can Internally or Externally alter it. The CURE is performed, I. By the alteration of the distemper by contraries, then the Medicines ought to be grateful to the Stomach, rather solid than liquid, rather meats than Medicinal than exact Medicines, mixt with astringent things that the Stomach be not Relaxed, nor sharp, Salt, corroding, lest they offend the mouth of the Stomach: if the Medicines be external, they must be applied to the sword-like Cartilage towards the Navel, and upon the back to the twelfth and thirteenth Vertebrae. II. By taking away the Causes both External and Internal. III. By Strengthening the Stomach, where appropriate Medicines take place, as the Magistral of red Coral, the inward Coat of a Hens maw, &c.

'Tis divided into a distemper without or with matter, of which in the following Articles.

Article, II. Of the Distemper of the Stomach without matter.

A Distemper of the Stomach without matter, is a preternatural disposition of the similar Parts of the Stomach in its qualities, produced by external and Internal Causes without the presence of any Humor.

Its SIGNS and Causes shall be explained in the differences, the Cure relies only on alteration, and removing the Causes.

'Tis divided according to the qualities.

I. One is Hot, which is known from the want of appetite to meat, inodorous Belchings, clamminess of Spittle, dryness of the jaws and Tongue; it ariseth externally from the six non Natural things encreasing its heat; internally from internal Diseases, burning Feavers, Inflammation of the Liver, Spleen, &c. 'Tis Cured, 1. With cooling things, but lightly and not too long applied. 2. With cooling

Diet where Barley Water takes place, and Emulsions of the four greater cold seeds.

II. Another is cold, which is known from the greatness of appetite, unless it be too cold, by four belchings, if neither much nor cold meats have been eaten, nor flegm do abound, by wind and too much spitting. It ariseth externally from the six non Natural things, internally from the parts incumbent, as the Liver, Spleen, and Muscles of the Belly which induce a coldness. 'Tis Cured, 1. By appropriate heaters, but not too much, inwardly and outwardly moist, lest dryness be caused. 2. By Diet, where Wormwood Wine takes place; it is distinguished into a positive, of which we have now treated, and a privative, which is conjoined with dryness. It ariseth from the defect of innate heat which is Caused by things that heat too much, as the frequent use of Wine, the want of nourishment, the heat and dryness of the incumbent Parts, as of the Liver, of the muscles of the Belly, and the Cal.

III. Another moist, which is known by want of thirst, by abundance of spittle, &c. it ariseth from external Causes inducing moisture, it is Cured, 1. With dryers without eminent heat or cold, as are the ashes of Hens Guts, of Swallows, burnt harts horn, red Coral, troscbishes of Vipers, Galangal, burnt Salt. 2. By a contrary Diet.

IV. Another dry, which is known by the extenuation and Contraction of the Region of the Stomach, which is accompanied with a slenderness of the whole body. It ariseth externally from a drying Diet, too much emptying and fumes of metals; internally from the dryness of the incumbent parts. The cure is the more difficult, because with the Feaverish heat it induceth a consumption; if vomiting happen it argues a great want of innate heat; the Cure is performed, 1. By moistening which is best of all accomplished by nourishments that are medicinal; 2. by Diet, where Milk takes place, beginning with a small dose, new layed Eggs, Almonds, Raisins, Pine Nuts, &c.

There is another compound, the Nature of which may be collected from the simple: those that labor of a hot and dry distemper, have little blood, unfit for nourishment, are lean, bound in body, with Veins eminent, subject to the dry Scab.

Article. III. Of the distemper of the stomach with matter.

A distemper of the stomach with matter is, when the stomach falls from its temper by reason of some humor either generated there, or falling thither from some other place.

The Signs and causes are put in the definition: in the differences they shall be more largely Explained.

The CURF is twofold. 1. By the alteration and evacuation of the peccant humor. 2. By strengthening of the part by appropriate external meats. Looke into the differences.

The Differences of this Distemper are Divers.

One is from the matter generated in the stomach; then the symptoms appeare continually; the whole body and all the members are found. It is cured by emptying of the matter, which is comodiously done by medicines of aloes, hiera picra, mechoacan; and by corroborating the part. Another is from matter falling from another part, then that part which was periodically affected, is no longer troubled; some accustomed evacuation is suppressed; or the usual diet hath bin changed, or somewhat stops in the whole body, or in some particular part. The symptoms are more remittent. For the cure we must have respect to the parts that send the matter.

II. Another is from the matter sticking in the cavity of the stomach, then there is a waving or nauſeouſness which is attended with vomiting or a looſness. Another from the matter impacted in the coates of the stomach, then there is a nauſeouſness without vomiting, oftentimes with the hiccups.

III. There is another cholericke, viz. hot and dry, which besides the former signes is discovered by nauſeouſness, bitterness of the mouth, with a certain sense of knawing, and sometimes by cholericke vomiting. It arises from choller; either sent thither from the bladder of gal, or generated there from corrupt meats. It is cured. 1. By dyet, wherein chicken broth seasoned with lettuce and endive doth excel. 2. By emptying of the matter, both by vomits made of the powder of the down or flower of walnuts dried in the smoke and given a dram weight in honey and water; and purgers compounded of hiera picra. 3. By alteration and coolers and moisteners, amongst which do excel succory and violet wa-

ter, syrup of pomegranates, of coral of Quercetan, of strawberries, currans; tincture of roses, lettuce and succory condite, &c.

IV. There is another flegmaticke, to wit cold & moist, which is known, both by the signs formerly reckoned up, and by a sense of heaviness in the stomach especially some hours after meat, by a waving & slow belching, it proceeds from thin or thick flegm; is cured. 1. By emptyers both by vomit, to which in thick flegm we ought to premise things incisive given in a solid form (amongst which excels diatrion pipereon, diacalaminth, the essence of balmé, pennyroyal, &c.) and by purging; so that the purges be administered either alone, or mixt with preparatives. The vomiters are, viz. of salt of vitriol given in broth, oxymel with the decoction of radish, *Heurnius* his vomiter of helbor. 2. By strengtheners, amongst which excels inwardly taken, the roots of callamus aromaticus and citron pills, and of oranges, with the philosophical spirit of vitriol, and the Elixir proprietatis: outwardly, ointments compounded of the distilled oyls, of wormwood, mint, cudmin; peneroyal, mastick, a cerote of one part of pure Ladanum, with 100 parts of wax applied an hour before dinner, is good. 3. By a contrary diet.

Article. IV. Of the tumors of the stomach.

A tumor of the stomach is when the same is elevated into a bulke or magnitude, greater than is due. It contains under it three things.

I. Inflammation, which is known both from the general signs, and also from the vehement pain, heat, thirst, a most burning fever, vomiting or often going to stool, unless when the orifice or pylorus is possess, to these are added the symptoms of the principal faculties, if the brain be drawn into consent. It arises from blood preternaturally poured forth by the veins derived from the porta whether it be pure or mixt, whether sent thither or attracted. It is cured after the manner of other inflammations, where observe. 1. that emptying by vomiting or stool is not convenient, unless where there is an eruption of matter collected. 2. Bleeding is rather to be repeated, than to take much blood at once. 3. Amongst external repellens, sugar of saturne with plantane or nightshade water, adding a little of wormwood or mint, is commended; internal things ought to be administered with a moderate actual coldness. 4. resolvers which ought to be gentle and emolient,

Emollient, must be corrected with astringents by reason of the excellency of the part, 5. If suppuration cannot be prevented, the heat must be cherisht with things moderately hot, moist and clammy, both inwardly and outwardly. 6. The imposthumation may excellently wel be broken either with the juice of Scabious alone, or mixt with honey. 'Tis divided according to the parts of the stomach. One is of the whol stomach, in which what posture soever the sick lyeth down in, he is full of pain. Another is of part of the stomach, 1. Either external, in which the pain after the concoction of the meat is encreased, by reason of the intension of the transverse fibres, the appetite is not very bad, nothing of the imposthumation is cast up by vomit. Or of the internal part, in which all things are contrary; but 'tis better, if the matter pass into this, than under the peritoneum; because there it may easily be purged forth, but here not so. 2. Either of the upper part, in which because 'tis endued with exquisite sense, there happen most greivous symptoms, and the strictness is most of all perceived towards the latter end of swallowing, where the attraction is strongest. Or of the lower part, in which the pain is encreased more in the digestion of the meat. 3. Or of the former part in which the tumor may be perceived by the touch. Or of the hinder part, in which if the outside be affected, the sick can hardly lie down on his back, if the inside, not easily on his face.

II. An *Oedema* and *Scirrhus*, of which we meet with nothing remarkable.

III. An *Inflation*, when the magnitude of the stomach is encreased by wind contained in its capacity, 'tis known by its distension, molesting the region of the stomach above the navel by the tumor, and by its resisting the touch, by belchings with which the malady is eased. It arises from matter ministring wind, of which in its differences. 'Tis hardly cur'd, if it befall one recovering, because it signifies a relapse; if it be in acute Feavers, because it shews that the natural heat is wasted by the preternatural; if it last long, because it endeth in a dry dropy. How it may be cured, see in the differences. 'Tis divided according to the nature of the causes, 1. One is from *windy nourishment*, which is known by the patients relation, 'tis cured with good dyet and discutives, towit with ballsome of fenel, oyl of caraways inwardly and outwardly applied, by baths of warm water, in which are boyled danewort roots, by baggs, by bread hot out of the oven sprinkled with oyl of Rue. 2. Another is from a *flegmatick matter* which causeth wind, and is known from the

signs of a flegmatick distemper, 'tis taken away by emptying the matter prepared, and discussing the wind, a great cupping glass, also doth discuss being applyed with much fire, without scarification, and often repeated, and one dram of sows pasterne bones burnt and prepared with Rue water given in a draught of wine.

Article, 5. Of the wounds and ulcers of the Stomach.

I. The wounds of the Stomach are known from hence, that the belly is loose, deeper over against the Stomach, hickops, and vomiting of choler do ensue, sometimes the meat and drink is cast up again. They are no waies cured, if the whol body of the Stomach be perforated, or if its upper part about the orifice be wounded; very difficultly, if only the outer coat, and if the bottome of the Stomach which is fleshy, and able to endure medicines. The cure is accomplisht as in other wounds; mastick any waies taken is good. The wound that penetrates, and is large, ought to be sowd up, leaving an orifice in the lower part; they must abstaine from all sharp things in their dyet.

II. An *ulcer of the Stomach* is known, by the pricking and ulcerous paine, by a heat molesting above the navel, caused by the receiving in of hot meat; by stinking belchings, by causes generacing ulcers, by a slow feaver, &c. It arises, 1. From external things, as sharp medicines and poysons, and then the relation of the patient which shew it. 2. From sharp humors there derived from some other part, or generated there; and then we must have recourse to the distemper with matter. 3. From an imposthumation broke after inflammation, and then this was precedent. 4. From the rupture of a veine, and then vomiting of blood proceeds. 'Tis hardly cured, both because deterives cause paine, and because being alwaies moistened by the chyle it cannot be dryed. Inveterate ulcers cause a lientery. In the cure note, 1. The humors if there be any, ought to be brought forth only with lenitives. 2. Vomits are wholly to be shunned, lest that which is ulcerated be delacerated more. 3. To internal consolidating medicines, somewhat moderately absteriive is alwaies to be mixed.

Chap 2. Of the Symptomes of
the Stomach.

Article. 1. Of the pain and heat of the
Stomach.

THe Symptomes of the Stomach are *Paine, Heat, want of appetite, too great appetite, a vitious appetite, too great thirst, hurt of concoction, hiccups, belching, rumblings, nauſeousness, Vomiting, and the Cholericke paſſion.*

I. The *paine in the stomach*, is a ſad ſenſation of the ſame, ariſing either from things that diſtend it, or knaw it, and ſo diſſolve its continuity.

There is no need of *Signs* in this ſymptom, unleſs the patient be diſeaſed in mind.

The *Cauſe*, is explained in the definition, and we ſhal be more large of it in its differences.

The *Cure* hath reſpect unto. 1. The ſymptome it ſelfe, if it be too urgent, in rebating of which a bagg made of the roots of marſh mallows, camomel flowers, red roſes &c wormwood, is good. Quercetans anodyne water in his Pharmacop. reſtitut. Oyl of chamomel ſaphirine, a bolus made of three drams and a halfe of eleſtuary diaphenicon, and two ſcruples of philonium romanum is moſt commended by ſome. Four grains of laudanum opiate with the decoction of chamomel. After the uſe of all which, things that ſtrengthen the ſtomach muſt be applied. 2. The cauſe it ſelf, of which in the differences.

The differences are taken from the parts
and Cauſes.

I. There is one pain of the coats which is ſimple, and to which the former things ought to be applied: another of the mouth of the ſtomach, which diſcovers it ſelf by faintings and ſwounings, ſometimes by immoderate ſweats and anxiety: and then it ariſes both from an attrition of the Stomach, which happens after taking of meat with coldneſs, a ſtoppage of the pulſe, and breathing, either from the meat boyling in the Stomach before it be ſent forth, or turned into flegm; and tis cured with oyl of ſpiknard applied hot to the Stomach, and one dram of pepper exhibited. And from the aſtriction of the Stomach, which happens by reaſon of the aſtriction of both oriſces, and the meat deſcending it ceaſeth; they ought to

be diſtinguiſht. The cure is paſt hope, if it beſal them who have an oriſce of exquisite ſenſe; if their extreme parts be cold, and if it proceed from poiſenous things.

II. Another is from external cauſes, as kernels, pins, ſharp, corrupt, or much meat, and then a vomit does good; and if poiſon have been taken, things alexipharmacal muſt preſently be applied.

Another is from internal cauſes. 1. From humors, viz. Cholericke, Flegmaticke, either falling thither from ſome other part, as it wont to be in feavers, or generat ed there, which if by mixing with the meat they become leſs acrid, upon taking of nourishment the paine is aſſwaged; if cleaving to the coates they are ſtirred by taking of meat, or ſticking to the bottom they be raiſed up; the paine is increaſed after meat. The cure ought to be fought from the chapters of diſtempers. Obſerve that hiera in a rough humor ought to be mixt with ſtronger medicines that it may overcome the matter. Zacutus his ſyrup and powder, Lib. ult. c. 2. n. 11. hiſt. is very good. 2. From vapors either contained there, of which Tit. 2. c. 1. a. 4. Or ſent from ſome other part, from the womb, worms, &c. 3. From worms aſcending to the oriſce, of which in its place.

III. Another is from diſeaſes moleſting the Stomach, viz. diſtemper, tumors, wounds, ulcers, &c. of which we treated before.

II. The heat of the ſtomach, is an ebullition of humors in the ſtomach cauſed by the power of preternatural heat, ſo that the heat is perceived even to the throat.

There is no need of ſigns in this ſymptom.

The CAUSES, are acrid vapors raiſed either from meat acrid in its own nature, in cholericke bodies, during the concoction of the meat, and the Stomach troubled with ſtrong motion: raiſed up from a cholericke humor, which while they are compelled to break forth by the gullet ſticking there, they burn that, and the mouth of the Stomach.

The CURE, is more difficult in thoſe whoſe ſubſtance of the ſtomach is as it were beſmeared with choler, becauſe the Region of it is dyed by the bladder of gal with a ſaffron color, and the ſame ſtain doth penetrate even to the internal membrane. It doth reſpect, 1. The heat it ſelf, to allay the which many remedies are given; the cheſt are theſe, a Bolus compounded of two drams of ſugar of Roſes, two ounces of crabs eyes prepared and bole armenick half an ounce, twallowed in parcells. A powder compounded of Chriſtal calcined one dram

and an half; Pearles prepared one scruple; Coral prepared, Chalk, each one dram, Sugar Candy two drams: the dose is one dram given in drink. Spirit of vitriol coagulated one scruple given in drink, which ought to follow a liniment of the best pomado half an ounce: Camphure one dram, oyl of bricks two drams, badgers greate half a nounce; Salt of vitriol one dram. 2. The cause of the heat, which is to be tempered, and emptyed.

Article, 2. *Of the want of Appetite.*

An anorexy, is the prostration of appetite in relation to all meats, arising from the defect of the sense of sucking in the upper orifice of the Stomach.

This symptom needs no Signs, The patient complaineth, and 'tis observable by the standers by.

The CAUSE, is the defect of the sense of sucking in the lower orifice of the Stomach, which from whence it proceeds, shall be said in its differences.

The CURE is doubtful, if it happen in the declination of a disease, or from the long continuance of it, or from weakness, or immoderate evacuation, because it indicates the extinction of natural heat, and threatens a relapse. If it befall children, who are naturally great eaters, and want much nourishment, because it signifies a great preternatural excess. If it afflicke in a disease of long continuance with sincere stools, because it shews an extinction of the appetitive faculty in the orifice of the stomach, either by reason of extraordinary cold, or of some matter extremely putrefied. If it arise from the brain by the hurt of the nerves of the sixth conjugation. Of little hope, if in some disease there presently follow it a great appetite to meat, no crisis preceding, nor an abatement of the disease, because, it signifies a hurt of the brain, and an extinction of the sensitive faculty. It relates to the causes, of which we shall treat in the differences.

The differences of the prostration of appetite are various.

I. One is Greater, which is properly called *Anorexy*, in which nothing at all is desired, with which agrees the former definition. Another is less, called a *dysorexy*, in which meat is desired, but less or later than nature requires it, it and arises from the sense of sucking weakened or overthrown.

II. There is another without nausea and bating of meats, which may be called *inappetency*; of the Causes of which shall be treated in the following difference. Another with hating, and tis called a loathing of meats. It ariseth from Cholerick and corrupt Juyces, yet void of acidity and saltiness, which because they are unfit to nourish the body, they are not sucked in by the veins, yet do possess the Orifice of the Stomach. 'Tis Cured with those things which do correct a hot distemper, and empty the Humor. See the Cataplatme, in Zacutus 4. vlt. c. 1. n. 5.

III. There is another from the want of Sucking, which is Cauled, 1. By the abundance of nourishment in the whole body, in which the strength is not cast down, the which is taken away by fasting, exercise, frictions, &c. 2. By an *inpotency in the Stomach*, to corrugate or wrinkle it felt up, either by reason of a distemper, either hot, relaxing the stomach, and diffusing the matter; or cold, destroying the Native heat, the first Cause of appetite: or by reason of a redundancy of vicious humors, especially crude Excrement, insipid, Clammy and Flegmatick, whether generated out of the meats; or flowing thither from some other part. The Cure ought to be fetcht from the Chapter of distemper. 3. by a defect and weakness of attraction. Either by reason of a cold and moist distemper, or by reason of the interception of the passages, by the obstruction of the metaick and hollow part of the Liver, in the Cure of which, those parts must be respected. 4. By *hindrance of Evaporation*, either when the substance of the body is not emptyed, either by reason of the constipation of the pores and thickoets of the Skin, which a Bath of sweet water will take away; or the weakness of Native heat whether acquired by a cold distemper, or idleness, or by reason of the tenacity, fixt and firme concretion of the substantiall moisture, which doth not easily yeild to the gentle and pleasing heat that feeds upon it.

There is another from the not perceiving of the sucking, which, 1. by Diseases of the brain in which either the Nerves of the sixth pair are affected, or the Animal spirits are not generated, or their influx is hindered, or which happens in acute Feavers, they do languish, or the faculty, as in the Phrenitical, &c. is converted another way. The Cure ought to respect those Diseases. 2. by Diseases of the Stomach it self, whether they be of distemper, or of Composition, or of solution of unity, of which

which we treated before. The appetite is raised by taking away the causes, partly by cooling things if a hot Cause did precede, partly by heating things, if a cold. Wormwood Wine is very much commended.

Article, III. Of too great Appetite.

Too great Appetite is distinguished into two Species, viz. A Dog-like Appetite, and Bulimus.

I. A Dog-like Appetite is a continual insatiable desire of Eating, arising from a Vehement sense of sucking in the mouth of the stomach, afflicting sometimes with vomiting, sometimes with a looseness.

There is no need of SIGNS, whereas they are express'd in the definition.

The CAUSE is a Vehement sense of sucking and pricking in the Orifice of the stomach, but whence it comes, is explained in the Differences.

The CURE which is timely to be administered, least the sick fall either into a custome of vomiting, or into the Cæliacal passion, or into a dropie, doth respect. 1. The hunger it self, which is allayed either with the Use of Fat things; or with the Yolks of Eggs hardened in Water, or what is best with Wine. 2. The Causes, of which we will treat in the Differences.

The Differences are taken from the Causes urging the Suckings.

I. One is from the too great want of nourishment in the Body, or by Reason of worms feeding on the Child, which shew themselves by biting, and they are cast forth by the use of Hierâ Pica; or by reason of too great Evacuations both sensible and insensible, by the habit of the Body, by Reason of too great a heat of the moisture, to which conduceth much, the tenuity of the Humors, and thinness of bodies, Laxness of pores, &c. And then sweats do molest; The Cure is to be turned to the Particular Diseases. Or by reason of the long use of Deterfive Nourishment, as Figs, Lobsters, &c.

II. There is another from cold, acid, and more austere Humors, wrinkling the Orifice of the Stomach, compressing and pulling it: as are acid Flegm, and Melancholly poured into the Stomach, and then the signs of a cold distemper are present; amongst purger Hierâ Pica is good, as also Zacutus his Wine, Lib. Ult. Hist. Prax. ca. 2. n. 9.

II. Bulimus is a great Appetite, Periodical, which oftentimes ends in a Nauseousness with Faintings away, and loss of strength.

The Signs are explained in the Definition.

The Cause is doubted of by Physitians: yet most do hold that tis a cold distemper of the Stomach, whereupon tis wont often to happen to those that make long Journeys through deep snow.

There is no Cure, if it happen in Chronical Diseases, sometimes after Feavers and other Diseases it threatens a relapse. It respects,

1. The time of the fit, when the swooning happens, in which we must use frictions and revivers, as the smel of Wine, Vinegar, &c. 2. The time out of the fit, in which after the sick hath recollected himself, meats of good juyces must be ministr'd, bread dip't in Wine, &c. And by external means the heat must be restored to the Stomach.

Article, IV. Of a Depraved Appetite, or Pica.

Pica, which is also Citra and Malacia, (is so called from the bird Pie which is sick of this disease) it is an absurd appetite to a strange substance liquid or solid, beside the nature or essence of nourishment, from a sad sense of sucking, and corrupt judgment not discerning things fit, or unfit for eating, from a Vicious Excrement imbibed in the coats, by a peculiar propriety of substance molesting the mouth of the Stomach.

The SIGNS are manifest, because they desire meats of Vicious qualities: there preceded excess, indigestion, use of meats and drunks of evil qualities, a suppression of the Courses, &c.

The CAUSE is a sad sense of sucking Molesting, which is Caused by the matter impacted in the Coats of the Stomach, either acting by its whol substance, or by a manifest quality, arising from an evil Course of Diet, or sex from some other part, as from the womb, whereupon tis familiar to Childing Women about the second and third Month: but there is wont at the beginning while the Causes do alter, to be raised a desire of contrary things; but when by long custome there is a familiarity contracted, things like are desired.

The CURE must be haistened, lest a Cacochymy or Dropie be cauled.

The peccant matter is most commodiously cast

cast forth by vomit, which in Childing Women must be Caused by those which are more gentle. The Stomach may be strengthened with water of Cinnamon, of Orange Pils, magistral of Corals, &c.

Article, V. Of too great Thirst.

Too great thirst, or Poludipsia, is a greater and oftner desire of accustomed drink, by reason of a sad sense of sucking in the Mouth of the stomach, arising from the defect of moist nourishment, and the alteration of its proper Humidity.

The SIGNS of the Symptom are manifest of themselves.

The CAUSE is a sad sense of sucking which the want of moisture, and the plenty of heat have raised: but whence that proceeds, shall be explained in the Differences.

The CURE doth respect, 1. The too urgent Symptom, which is mitigated by Crystal or Coral held in the Mouth, cold water corrected with a little Vinegar, the juyce of live Crabs with water of violets and Houssleek, sprinkled; with a little Niter, a Lohoc compounded of the Mucilage of the Seeds of fleawort and quinces, of each half an ounce; Sugar Candy of violets powderd, Starch, Tragacanth, of each one dram; Syrup of violets as much as is sufficient. With spring Water boyled with Sugar Candy, adding a Pome Citron cut in two, &c. II. The Causes of which shall be treated in the Differences.

The Differences are taken from the Causes.

I. One is from the defect of the dewish substance of the Stomach, which is known from the preceding Causes, absence of loathing, &c. it ariseth from those things which can waste moisture, as are Labors, watchings, fastings, immoderate Evacuations, &c. The CURE is to be perfected with meat rather than with drink, water which causeth vomiting and a looseness in them, is to be shunned: the beginning must be taken from moistning, which a gentle cooling ought to follow.

Another from the dissipation of the moisture in the Stomach through heat, which is known by the loathing of meat, roughness of the Jawes, bitter, Saltnicious taste. It ariseth, 1. Either of it self, or from external things, the hot Aire, sharp, Salt meats, hot Potions, Vehement Motion of the Tongue, poysons; all which ought to be removed. Or from internal

Causes, as chiefly from an unequal distemper of the Stomach, where we must empty; and moisten with an Emulsion of the four greater cold Seeds. 2. Or from other Diseases; viz. A Fever, heat of the Lungs, a dropsie, &c. The Cure of which must be fetcht from their proper places.

II. There is another without a Fever, which Cholera, or Salt Flegm do Cause.

Another with a Fever, in the beginning of whose sic no drink is to be administered, lest a greater heat be kindled, but the thirst must be deluded by things held in the Mouth; in the Vigor we must use moistening and cooling Gargarisms; in the declination, unless the Patient wil abstain, drink may be allowed; that sweats may flow more plentifully.

Article, VI. Of the hurt of Concoction or Chylification.

The hurt of Concoction, is a fault of the concocting faculty in its action about the nourishment, by which it comes to pass, that it either doth not concoct at all, or slowly, or depravedly.

It contains therefore three things under it, Bradupepsy, Apepsy, and Dyspepsy.

I. Bradupepsy, is a slow and weak concoction, when the meat is left either half crude, or is not digested but in a long time, by reason of the frustration of the faculty, and weakness of heat, chiefly proceeding from a cold distemper.

The SIGNS are, a distention of the stomach by winde after a full Concoction of the meat; the sent of the meats rising to the Palate many hours after; sour belchings, Flegmatick vomitings, stools moist and crude, the Concoction of meats easie to be concocted, scarce done in a long time. The Adequate cause is the frustration of the Concocting faculty, which either is hindered by some Organical Disease, as a Tumor, inflations, &c. Or is weakened by a cold distemper induced by those things, which either do cool, or suffocate, or dissipate, or withdraw the nourishment, or tis hindered by an external error, which either Excrements heaped up in the stomach, or sent from some other part do Cause; or nourishments not regularly taken; in just quantity, quality, time and order; or sleep.

The CURE, unless the griefe proceed from an external error; is principally to be directed against a cold distemper; for this inwardly

wardly, are good, the tincture of amber, magistral of corals, Elixir proprietatis, Diacorum nobile, the fruit of Eglantine condite, extract of calamus aromaticus, of Juniper berries, of Zedoary, spirits of vitriol if grosse humors are presumed to be in the stomach, but 'tis then worst of all when the heat of the stomach is languishing, for this, the blewish or green spirit of wormwood, *Mynsichtus* his elixir of vitriol, syrup of Juniper berries, conserve of roses vitriolate, the philosophical salt compounded of salt of niter prepared and molten, gemma, each two drams; of wormwood, blessed thistle, tamarisk, each one dram; of galangal, cubeb, mace, each two scruples; *Birckmannus* his powder of the root of cuckowpint prepared in *Quercetans* Pharmacopea. The distilled oyl of orange pils, of wormwood, *Bartoletus* his potable oyl, of nutmegs, cinamon, mastick, &c. outwardly do best agree, *Cratoes* stomach oyl, *tacamahac*, balsome of Peru, *Hartmans* stomach scutum, *Stokers* cerote of ladanum, &c.

II. *Apepsy*, is the concoction of nourishment in the stomach quite abolished, proceeding from the privation of its alterative faculty, by which it comes to pass, that it descends crude into the guts.

The SIGNS of it are, the precedent causes, belchings after the space of 6. or 7. hours, favoring of the nature and qualities of the meats, the casting up of them inconcocted, or voiding them so by stooles, &c.

The CAUSES are stronger than those, which were alledged in a Bradypepsy.

The CURE also ought to be fetcht from thence, the arcanum of tartar is commended, if ten grains of it be taken every day in broath.

III. *A dyspepsie or diaphthora*, is a corruption of the meat, and a change of it into a strange qualitie, by reason of the frustration of the concocting faculty of the stomach.

The SIGNS of this are, nidorous belchings, adust, acid, fat, stinkings, which are often attended with rumblings of the belly, murmurs, pains bitings, vomitings, very stinking stooles, impatiency of hunger, anxiety, &c.

The CAUSE is the distemper of the stomach, and that oftentimes hot, which burns up, corrupts, and putrefies the meat; but every thing corrupted, according to its nature puts on a strange quality: hence it is, that things smel so diversly. Chiefly the nidorous corruption is the off-spring of heat, which ariseth from hot diseases, nourishments of the same quality,

and easily corrupted, as milke, fishes, mushrooms, fading fruities, the slow corruption proceeds from cold.

The CURE is to be turned to the distemper, the hot one chiefly, of which we spake before; here the Spirit of lotrel, and *Quercetans* syrupe of corals challenge the first place.

Article. VII. Of the Hickops.

The Hickop is a convulsive motion of the stomach, consisting of the distension and dilatation of the fibres of its upper part, by which the expulsive faculty being irritated, doth endeavour to cast forth things hurtful that are fixt in the coats of the stomach, especially of the mouth of it and gullet, with a noise and vehement contorsion.

There is no need to reckon up the signs, 'tis heard by the standers by.

The CAUSE is matter residing sometimes in the whole stomach, but pulling the stomach either by an inimicous quality, or by compressing it.

There is no Cure, if a Dilerium happen with it, because it is an argument, that either acrid vapors are raised up to the head from the stomach inflamed or that the brain being inflamed, the evil is communicated with the nerves of the orifice of the stomach, if it arise in a deepe sleepe, in swooning fits, or convulsions. The cure is doubtful, if fainting be feared with it, if it befall old people purged above measure, if it arise from an inflammation of the liver; if it invade after vomiting, because it is a signe the stomach or braine suffers no smal inflammation; if it happen in sincere vomiting, because there is signified some great burning of the parts about the stomach; if it proceed from the Ileon, because 'tis an argument that some nervous part w^{ch} hath consent with the brain is affected, if it be joyned with losse of speech. It respects, 1. The symptom it self, which is restrained by things stupefying, as of *philonium romanum* one scruple; saffron, cinamon, each two grains; *Laudanum Opiate* one grain, with oyl of sage as much as is sufficient. 2. The causes, concerning which consult with the differences.

The differences are taken from the causes and other things.

I. One is from external causes, as refrigeration, either by reason of the ayre, or cold drinke, where holding of the breath, and anointing of the back and stomach with hot oyls

oils doth help. From sharp nourishments or medicines, where Ptiffan drink, or oyl of sweet almonds is a remedy from too much emptying, which is followed with a driness and corrugation of the stomach, where an imulsion of the four seeds with temperate anolepticks takes place. From corrupt meats, w^{ch} aloes will purge forth; from poyson taken, which treacle relists.

Another is from internal causes, as are, 1. hot and acrid humors, which require a vomit or gentle purge, by the use of terra sigillata, or bole armonick, they grow more mild. 2. Cold humors, which must be prepared and emptied; the extract of castor is of force, oxymel of squils, Elixir propriates; and sneezing takes its place. 3. Winde, which is discussed by a nodulus compounded of dil and poppy seeds, by oyl of Cumming seed, or by the imposition of oake ashes sprinkled with mallego wine, a plaster of bay berries. 4. Matter which is wont to be in an inflammation of the liver. 5. internal diseases, as an inflammation of the liver, wombe, stomach, brain, or some other part; also a feaver, in which observe, in the beginning of the feaver it ought to be taken away by gentle evacuation; in the state we ought not to feare, because tis a signe there will be a crisis by vomiting; in the augment it signifies either that the humor flows to the cavity of the stomach, and then the hickops is sildomer, and by taking of meat, or a gentle medicine 'tis layd: or into the substance of the stomach, and then the hickops is so frequent, that by reason of it the patient seems to be choaked; it must be stopt by stupefactives, if by reason of the vehemency of the feaver we may not purge.

Article, 3. *Of belching and rumbling.*

I. *Belching is a violent breaking forth with noise of wind residing in the Stomach, through the upper parts.*

There is no need of signs to discover it, for it is manifest.

The CURE must not be neglected, for if they be frequent and much, they signify the vehemency of the cause, and trouble digestion; if they be before meat they dispose to the colick, if after, to the dropfy. Yet belching is good if it be supervenient to an asthma; if it happen in a long looseness, when as it was not before, because it is an argument that there is againe some concoction. It respects principally the cause, of which elsewhere.

The CAUSE, is wind generated in the stomach, or sent thither from other parts especially from the hypochondria.

As concerning the differences 'tis divided threefold.

I. *One is moderate* which (because it voids by the mouth windy excrements) is not to be stopped; another frequent, which is to be taken away.

II. *Another is acid*, which is either from meats of hard concoction, or from a cold distemper of the stomach, and then honey, sugar and other things turne sowl. If it continue long it threatens a dropfy or lientery. The sick are not easily subject to a pluresy. The cure is to be turned to the distemper.

III. *Another is Nidorous*, which is either from the meats sending such a vapor from them as are radishes, onions, fryed meat, fryed eggs; or from the too much heat of the stomach. So corrupting the meats, whether it be so, either essentially or by consenc.

IV. *There is another insipid*, which proceeds either from flatulent meats, or from the plenty of it; and if a long time after the taking of the meat it savour of the same, it signifies a great weakness of chylickation.

II. *Rumbling is a sound of the belly caused by humors or wind, running up and down the Stomach or guts.*

It hath the same causes; the differences are allotted, both according to the diversity of the sound, whose cause is plenty of excrement, and the largeness of the passages; and the nature of the part in which it is contained. For it is dry and thin which makes an acute sound; moist and thick which makes a grave or base. It is either in the thick guts, from whence the graver sounds break forth; or in the smal guts; from whence the clearer and acuter; and if there be moisture with it, there ariseth a smal murmuring, which is the fore-runner of a moist stool at hand. It is either in the cavity, or within the coats: nay there hath been knowen a wind that ascended to the throat, making shew as if it would suffocate, and after an hours space hath returned to the stomach.

Article, IX. *Of nauseousness and Vomiting.*

I. *Nauseousness is a vaine desire to vomit with a sad molestation, heat and anxiety, by*

which the stomach, contracting the lower parts, and dilating the upper, doth endeavour to cast forth those things which are offensive to it; but by reason of weakness, or the scarceness or continuance of the matter, it voids nothing by the mouth but a thin watry humor.

There is no need of Signs, the causes are declared in the definition, and differ only gradually, from those which cause vomiting; therefore we shall treat of them, when we do of vomiting.

II. Vomiting, is a sensible and palpable casting up with violence through the upper parts, the matter contained in the capacity of the stomach.

There is no need of signs, when as the symptome is manifest. But the business is not of that which is Critical, which happens as the work of nature for the benefit of the sick, and either lessens, or takes away the matter: but of that which is symptomatical, which is foretold, by a paine in the head caused by consent, darkeness appearing before the eyes, rigour, coldness of the lower parts of the hypochondria moving of the lower lippe, the flowing forth of much drivel, &c.

The cause is whatsoever can offend the upper orifice of a weak stomach, and irritate it to expulsion, either by its plenty, or biting quality, or by the nature and disposition of its substance.

The Cure is difficult, if all colours be vomited because they signify dangerous affections in the body, if that vomited be of a leek color or black, because it indicates an excessive heat in the veins, and great corruption of the humors, unless it proceed either from the crudities of some meats, or be critical. 'Tis past hopes; if the matter be livid, and smel strong, because it denotes putrefaction with an extinction of the native heat: If with it, there be other matter which from the corruption in the body hath contracted blackness, it being by nature not black, it relates to, I. The urgent symptome it self, which is to be stopped, 1. By revellers, whether they be strong and sharp Clysters, or hot things applyed to the extreame parts, 2. By things that compress the motion of the expulsive faculty, and strengthen the Stomach. Inwardly are commended, Zacutus his Pills, lib. 9. hist. prax. cap. 1. num. 4. Lignum aloes powdered and given with the syrup of the sharp juice of Citrons. The crude juice of quinces taken a spooneful, laudanum opiate, a vomit. Outwardly a plaister of treacle,

Zacutus his cataplasme, an epithem of the decoction of wormwood, mint, made in smutch water.

The differences are taken chiefly from the causes.

I. One is from external causes, as are meats either taken into great quantity, or offensive, by their hurtful qualities, vomiting medicinets (then are commended new treacle, spirits of wine) imoderate drinking and drunkenness, vehement motions after meat, unaccustomed going to Sea, violent coughing, the phantise and beholding of things loathsome, blows on the body, a wound of the skul, poyson taken, &c.

Another is from internal causes, either diseases, or humors, of which shall be treated in the following difference.

II. Another is from diseases infesting the stomach, as are, Ulcers, tumors, straitness and smallness, the stoppage of the lower orifice, which must be considered in the cure.

Another is from humors, which are either bred there, and then there was some fault in the dyet, with a continual nauseousness; or flow from some other part, and then there must be respect had to those parts; or they lie in the cavity of the stomach, and then they are cast up with a little straining, there is a distension and anxiety after meat, and vomitings when they have taken no meat: or they adhere to the coats, and then they vomit not, unless upon taking of meat nauseousness is very troublesome. These humors are, 1. The Chyle, which must be suddenly remedied lest an atrophy steal upon us; this happens in an ulcer of the Stomach. 2. Excrements, which are cast upwards in the Iliaca passio, as also Glysters. 3. Blood, which is cast up either by reason of the cutting of some member, or after the suppression of some evacuation of blood: where it must be dissolved lest it putrefy, with oxymel in which a dane-wort root hath been boyled, afterwards it must be emptied, at last it must be stopped, with two ounces of the water of the greater nettle, & spirit of vitriol as much as is sufficient for a grateful sharpness, with the essence of crocus Martis, & gelly of Quinces, with the old conserve of roses given with gum tragacanth; Or by reason of the opening of the vessels, where the same means must be used. Syrup of purslane with terra sigillata is powerful in astringion. 4. Cholera sometimes comes theither, if the channel of cholera be inserted

ferred into the Stomach; and then the nature of the humor cast up must be considered: vomiting troubles them most when they are fasting: 'tis sometimes happily stayed by opening the *Salvatella*, if we may credit *Zacutus*.
5. *Flegm, melancholly, matter, worms, stones, &c.* which are best of all discovered by their proper signs.

Article, X. Of Cholera.

Cholera, whether it come *apoteles cholera*, that is from yellow cholera, from which it most frequently ariseth; or *apotoncholodon*, that is fit on the gutts, is twofold, moist, and dry.

I. *Moist cholera*, which also is the true, is a continuall and imoderate casting off of an evil humor, with great perturbation and violence, both through the upper and lower parts, arising from the violent irritation of the expulsive faculty.

The signs are, often voiding of choleric humors, a great paine in the belly and bowels, paine at the heart, thirst, a pulse smal and frequent, to which do oftentimes succeed, faintings, and coldness in the extreame parts.

The Cause is a sharp and corrupt matter, whether arising from meats bad in themselves, as the eggs of the barbel fish, mushrooms, melons, cowcubbers, plums, fat things, herbs, leeks, onions &c. or bred elsewhere and sent to the stomach, as shall be said in the differences.

The cure must be hastend by reason of the acuteness of the disease; yet there are some, in whom this choleric passion & a lack at certain periods, doth empty al the superfluities of their bodies. It respects, 1. The furthering of either of the evacuations, if one be too much, the other to little. 2. A tempring of the humors. 3. A strengthening of the part. 4. A restoring of the strength and spirits, too which end wine is good, if there be no fever. 5. A mitigation of the Symptomes, of which in the differences.

As for the differences.

There is one, when the matter that irritates is contained in the Stomach, which is known by this, that there is present, nauvousness, a straining, knowing and pain of the stomach; It ariseth from strong purging medicines. Concerning the Cure observe. 1. That the flux must not be stopped, if the evacuation be plentiful, and the strength be not impaired. 2. Where the irritation is great, and the eva-

cuation smal, vomiting must be furthered by gentle vomiters, and purging by benigne purgers and laxatives. 3. Where the evacuation is great, and irritation smal, we must use astringents and strengtheners together; 4. If vomiting be excessive, we must move by stooles, if a looseness be too much, we must act with vomits composed of rosey with syrups of roses. 5. Inwardly *crocus martis* rightly prepared doth stop it best of al. The decoction of *Cloves, Mastich, and Red Roser*, made in red wine; *Laudanum opiate*: the sponge that is wont to grow on sawallows given four grains weight in red wine. Outwardly a Sea sponge boyled strongly in vinegar and laid upon the stomach.

Another is, when the matter flows from elsewhere, as from the liver, pancreas, gutts, meientery, into the stomach. 'Tis known by this, that for the most part there is present a malignant fever, and convulsions trouble them: the matter offending then is, *Cholera like yolke of eggs, yellow, adust, or salt, nitrous, and corrupt*. In the Cure, 1. The course of the matter flowing thither is not presently to be stopped. 2. If it flow too much, it must be diverted by medicines either to the skin, or to the passages of urine, or it must be called to the outward parts, by frictions, ligatures and the like. 3. It must be qualified and the parts strengthened. Inwardly *Christal* is good, given half a dram weight. Outwardly epithems made of the juice of *Endive, Purslane*, with barley flower. In course of diet bread dipt in the juice pomegranates is good, &c.

II. *Dry cholera*, which also is the bastard, is a voiding of a flatulent spirit through the upper and lower parts, with a puffing up of the belly, with noise, and a pain of the loynes & sides.

The SIGNS and immediate cause, are exprest in the definition.

The CURE, which also must be hastend, doth respect. 1. The bringing forth and discussing that flatulent spirit where Clysters and carminative decoctions take place. 2. A Removal of the Cause from which it ariseth, of which in the differences.

As concerning the Differences.

One is From the fiery heat of the stomachs corrupting the meats, and converting them into a nidorous matter and sharp vapors, in which the cure must be turned against a hot distemper, and outwardly the boyling hot hypochondries must be cooled.

Another is from sharp and windy notes

ment

ments, as Raddish, Rocket Seed, fryed Eggs, and the like: and then the matter must be emptyed, and give dietion Piperion.

Another is from *Black-choler* and other acrid and Salt Humors lurking about the Hypochondries, and growing hot by the mixture of another Humor; as we see Salts and saline spirits being mixt with acrid spirits, do yeild a great quantity of spirits.

Title, III. Of the Affects of the Guts.

Chap. I. Of the Diseases of the Guts.

THE Diseases of the Guts are chiefly, *Inflammation, Straitness, Wormes, Rupture, Wounds, Ulcers*, and the affects of the right Gut.

Article, I. Of the Inflammation of the Guts.

An inflammation of the Guts is a swelling of them arising from blood out of its vessels falling into them and putrefying.

The *SIGNS* are a fixt and distending pain, the perceiving of a Tumor, that the Guts may be perceived to be rowled up like the strings of an instrument, costiveness of body, a stoppage of the Urin, a Fever present.

The *CAUSE* is explained in the definition. In the Autumn the blood chiefly flows thither, by reason of its thinness, because the thin and moveable Humors generated in the Summer, by the inequal cold of the Autumn, are driven to the center of the body.

The *CURE* must be ordered according to the rule of other inflammations, and that quickly, because the evil is acure, and oftentimes turns to a gangrene, and mortification. The cooling Medicines, which are administred for it, ought to be without astringion; we must wholly abstain from Purgers, lest the place affected be exasperated.

'Tis divided according to the place and Causes.

I. One is of it self, of which we have now treated; another from the *Navel Rupture*, of

which in its place. Another from the *Rupture of the guts*, in which the Guts ought presently to be put back into their place. Another from a *contusion*, in which, to those things which are applyed for the inflammation must be added somewhat lenifying and concocting.

II. One is in the *small guts*, which is most common, in which a distention of the stomach, straitness of breathing, daily vomitings, do molest, that they are not able to contain their drink, the pain and Torture tends most to the upward parts. Another in the *great Guts*, in which the pain reaches more to the Hypochondries, there is a heaviness in the Loins, and vomiting is not so continual.

Article, II. Of the Straitness of the Guts.

The *Straitness of the Guts* is known chiefly by this, that the Excrements of the Belly are not rightly cast forth by stooles.

It hath its *Differences* according to the Nature of the Causes.

I. One is from *External things* that are astringent and drying, as quinces, and other things, which is known by the relation of the Patient and standers by. In the Cure are required things moistening and mollifying, fat things, &c.

II. Another is from the *Excrements hardened*, obstructing them, which is known by this, that there is no Tumor, pain, yet the Excrements are not cast forth. It ariseth at that place especially where the small and great Guts end, either from too dry matter, and drink too much diluted, or from the heat of the neighbouring parts sucking up the moisture.

'Tis Cured by Mollifiers, by a bath of sweet Water with emollient Herbs, by the Grease of a roasted Goose cast in by a Clyster, by blowing up the Guts with a Pair of bellows, which must be followed with a strong Clyster with half a dram of Sal gemæ.

III. Another is from *Inflammation*, of which we spake in the former Chapter.

IV. Another from the growing together of the *Guts* which is incurable.

V. Another from a *Rupture* or worms, of which shal be spoken hereafter.

VI. Another from *thick Flegm*, which is known by this, that Causes generating that went before; crudities, slowness of the belly to stooles, and much wind abound. It ariseth from the fault of the Diet, and the feeble heat

of

of the Guts: and if it stick there long, it grows so thick that it wholly stops up the Guts. It is Cured by things that cut flegm, and sharp Clysters, concerning which consult with the Chapter of the Cholick.

Article, III. Of Worms.

Worms are small creatures wholly preternatural, generated in the guts out of a thick clammy and viscous Humor, having in it the principal of life in its kind, by a vivid heat raised up by putrefaction, which do hinder the actions of the Guts.

The common signs are many, to wit, a stink in the mouth, disturbed sleep, with skipping, trembling, noise and gnashing of the Teeth, Itching and often rubbing of the nose; a pale face, sometimes by fits ruddy, hollow and dark Eyes, the white of which is changed into a Saffron or Pale, running of drivel from the Mouth more than usual, a distension and puffing up of the belly with murmurs, a knawing in the belly, & that exasperated in the time of hunger, sometimes a loofness, vomiting, falling-sickness. If in the morning while Children are fasting, cold water be sprinkled on the Mouth of the Stomach, they will al gather together, and this sign hath most weight with it, if the Age of the Child wil bear with it.

The CAUSE is a viscous and Flegmatick Humor which ariseth from much eating, meats that easily corrupt, & generate a thick juyce, as cheese, Milk, pulse, decaying fruits, sweet things, sugard things, honyed things, &c. It hath somthing analogous to seed endued with a formative faculty, and a vivifying discretion, which doth dispose the matter to receive this, and no other form of worm, and being disposed doth Cloath it with that from, as we see peculiar worms do proceed out of wormwood, Sea Salt, a Horse, a calfe, Mulberry leaves, Cheese, Honey.

The CURE, which is *Difficult*, if there be many, great ones, red and of divers colors, living; if in the beginning of Feavers and acute Diseases, as also in the augment, by the malignity of the Disease they be Symptomatically voided, *Is Performed*, I. By things that kil them, those which are bitter, acrid, Salt, or enemies by their whol propriety, ought to be given upwards, but alwaies mixt with sweet things, downwards premising sweet things, then when they are in the lowest places or in the right Gut: with them Oyl ought to be mixed, that they may be stifled in it, with cheese

butter, which they exceedingly fear. The chiefe things that kil them are *hot*, as *Coraline* given in powder one dram, *Wormseed*, *centory the lest*, *peach flowers*, *Myrrh*, *Aloes*, *Zedoary*, the *Juyce of Rbadish*, and *creffes*; *Cold*, *bearts horne burnt*, *Purslane Water*, *juyce of Endive*, *Grass Water*, with a little *Vinegar* and *Sugar*. Of *Internal Compositions* the *Powder of Dr. Mencilins* my wives *Grandfather*, excels; 'tis compounded of the *Flowers of Centory the lest*, *tansie*, *St. Johns wort*, each *two drams*; of the *flowers of Wormwood*, *Savine*, *Peaches*, of each *one dram* and *an half*; of the *Roots of white dittander*, *gentian*, *asarabacca*, of each *one dram*; of *red Corals prepared*, *burnt barts horn prepared*, of each *two scruples*; *Seeds of Artichoke*, *Purslane*, *citron*, *cummin*, *Seseli*, *Coleworts*, *Coriander prepared*, *Sorrel*, of each *half a dram*; *Choice Rhubarbe* *one dram*; *Myrrh*, *Saffron*, of each *half a dram*; *Scammony prepared*, *Trochisks of Albandal*, of each *two scruples*; *Salt of Wormwood* *half a scruple*, *Coralline* *half an ounce*: Of which you may give from *one scruple* to *one dram* in *Cows Milk* upon an *empty Stomach* *two hours* before *meat*. *Outwardly* is commended the *cerote* compounded of *Myrrh*, *Saffron*, *Liver colord Aloes*, of each *as much as is sufficient*, with *Rose Vineger* and an *Oxe Gal*, and applied both to the *Mouth of the Stomach*, and to the *back*; see more amongst *Authors*. II. *By things that drive them forth*, which are, *melted butter*, *great quantity of Oyl*, a *Bath of sweet Milk* *siming hot*, if the *Worms* be yet *alive* *Diaturbith with Rhubarb*, *Ruffus Pills*, and *de Tribus Solutivis* if they be *dead*.

The *Difference* is taken from their *figure*.

I. Some are *smooth* or *round*, in which the *knawing of the Belly* is more *vehement*, a *dry cough* more *frequent*, the *hickops*, *nauseoutness*, *loathing of meat*, *faintings of the heart*, *troubled dreams* with *trembling*, *rising up*, *crying out*, *motion of the Jaws*, &c. *Clysters* are not *convenient* for these, unless they be *dead*.

II. Others are *broad*, in which the *Excrements* are not *unlike* to *gourd Seeds*, there is an *insatiable desire of meat*, and a *quick casting forth of the Body* of that which is taken, a *greater leanness* and *wasting of the Body*, a *pain* sometimes in the *right side*, sometimes in the *left*. *Fearn*, or its *water* is good against them, *Walnuts*, *Treacle*, with *Vinegar* or the *Juyce* of

of Lemons. Concerning the broad worm, see *Tulpius* in his observations.

III. Others are called *Ascarides*, in which there is a continual pain, a most troublesome itching about the Fundament, as if it were full of Aunts, with a heaviness in the back, continual Motions to stool, moch-like worms are every where mixt with the Excrements of the Belly, which smel very strong, &c.

Article, IV. Of the Rupture of the Guts.

A Rupture of the Guts, is a falling down of the Guts out of their place.

'Tis called by the Greeks *Kele*, by the Latines otherwise, *Ramix* and *Ruptura*.

The SIGNS are a Tumor which sometimes encreaseth, sometimes decreaseth, according as a greater part of it it falls down, or is filled with wind or Excrement, there is no pain, unless by chance the Excrements be fallen thither. The Patient being prest down or laid on his back the guts slide back into the belly, and that with a murmur, &c.

The CAUSES are those things which can Relax or break the process derived from the Peritonæum, as shall be said in the Differences.

The CURE is not to be neglected, both because that thin and Nervous Membrane cannot easily be united, and because sometimes the Patient his Guts being inflamed is brought into danger of his life, and the Guts inflamed do mortifie. It respects, 1. The Replacing of the Guts, which if they be swelled with wind, as the rumbling in the Guts and breaking of wind do declare, it must be done by discutives: if they swel with Excrements hardened, then both with Emollient Clysters and Cataplasmes and Fomentations. If with *Flegmatick matter* it must by little and little be emptied by Clysters and suppositories, and be attenuated by internal incisive means: if there availe nothing, we must flie to Chirurgery (concerning which consult with Authors.) 2. The retaining of them in their place; here are proper, *Horse Tongue*, which is most excellent, the powder of *Moose-Bare* given with meats, *Trough wax*, *Rupture wort*. The Ashes of a sucking hare given to drink in red Wine. The Seed of *Flix weed*, the plant fern powderd and given, each half a dram,

The Differences are taken from the Causes and places into which they fall.

I. One is from a Rupture of the Peritonæum, which is known by this, that a Tumor is suddainly raised, and also is quickly increased; the Gut falls down to the very bottome. It ariseth from violent Causes, falls, straining to cast forth the Child, or the Excrements of the Belly, holding of the breath, straining of the voice, wounds of the Peritonæum, &c. In the Cure a Ligature being applied, shall be given inwardly one Spoonfull of the essence of the greater comfrey, with two drops of the balsome of *Sal Gemme*. Outwardly must be applied *Villanovanus* his Plaister of a *Rams* Skin. *Mynsichtus* *Armam*. p. 364. And the same Authors *Unguent against a Rupture*. p. 352. The fat of a *Hedge-Hog*, concerning which see *Hartman*. If theie do no good, seek for help from Chirurgery, (of which see *Platerus*.)

Another is from the Relaxation of the Peritonæum, which is known by this, that the Tumor grows by little and little, and the Gut doth not descend to the very bottome. It ariseth both from the moisture of the Peritonæum, whence Children often fall into a rupture: and from those things which break it, if by degrees and often they assaile the Peritonæum, though not so violently.

II. There is another called *Osteocele*, when the Guts descend into the very Cod, 'tis known by seeing. Another *Bubonocele*, when they fall down no lower than the groin: This sometimes doth very much distend the Skin, and is stretched out under it, and causeth a great Tumor. Both of them is either *Enterocoele*, when the Ileon Gut chiefly fall down, or *Epiplocoele*, when some part of the Cal. See *Geigerus* in his *Kelegraphy*. Hither belongs *Exomphalos* or *Omphalocoele*; when the Navel either Relax or broke struts forth sometimes the bigness of a nut, sometimes of an Apple; nay sometimes there is a Tumor raised like a Bag. If it be lately, first of all foment it with a Decoction of *tree Moss*, self Heal, made in astringent Wine; afterwards lay a Cataplasme of *Plantane* and *Lentils*. If it be Old, after the like Fomentations, 'tis Cured with the Oyntment of *Misbrams*, of *Nuts* outwardly applied with convenient ligature, inwardly with the essence of the greater comfrey with the Arcanum of *Sal Gemme*.

Article;

Article, V. *Of the falling down of the Fundament, and of the wounds and Ulcers of the Guts.*

I. *The falling down of the Fundament, is a hanging forth of the outer part of the right Gut.*

There is no need of SIGNS. The CAUSES shall be spoke of in the Differences.

The CURE requireth. I. *A putting up of the Fundament fallen down, which is performed gently with the Hand, premising a Fomentation of emollient and moistning things if it be swelled.* II. *The retaining of it being reduced to its place, either by astringent Decoctions, or by pouders, of Frankincense, mastick, &c. Inwardly is comended the Decoction of the Root of wild self-heal being drunk. Outwardly the Althes of beetles, of sheeps dung strowed upon the Gut.*

The Differences are taken from the Causes. 1. *Either it is from great straining, which is Either in forcing out the Extrements, and then the Belly must be kept loose, or in labour.* 2. *Or it is from a great irritation, which afflicts either in a dysentery or tenesmus, against which the Cure must be directed; or from the weakness of the Muscles, which are wont to draw back the Fundament thrust forth, after the emptying of the Belly; or by reason of the often falling down of the Fundament, or by reason of some cold, and then the Nerves must be strengthened and the cold distemper be corrected.* 3. *Or from a Resolution either by reason of a contusion of the Nerves about the Region of the Os Sacrum or Rump bone, where things consolidating take place: or by reason of some Extraordinary refrigeration of them, of which we spake even now: or by reason of some impostumation or fistula arising about the sphincter Muscles.*

II. *The wounds of the Guts (I pass by the Perforations made by worms, wind, &c.) are either of the smal Guts, in which the meat and drink comes forth, Cholera is cast up by vomiting, there are great pains with a Fever, and theie because the Guts have a Nervous Coat, and full of many Vessels, are by no means or very difficultly Cured. Or of the great Guts, in which the Excrement comes forth, the body is bound, the which if they be long waies, and smal, they are the easier Cured; if they be large and Crosse the Guts, the harder no; waies*

Cured if they become blackish. See their cure in Practitioners.

III. Concerning *Ulcers* we shal treat in a dysentery. *Mortification* is wont sometimes to follow a Rupture, the Iliack Passion, and an Inflammation: it happens also in wounds if the Guts falling out of the Belly, be alcerd by the Aire, and become blackish.

Chap. 2. Of the Symptomes of the Guts.

Article, I. Of the Iliack Passion.

The Symptomes of the Guts are, *The Iliack Passion, the Collick, costiveness of Body, and a lark.*

The Iliack passion is a sharp pain in the smal Guts, arising from a violent solution of continuity, with a Tumor of the belly rowled up like a bundle of strings, and so great an obstruction of the Belly, that nothing goes downward, but the Humors and Excrements are sometimes violently cast up by vomiting.

The part affected is the Ileon Gut, and the other smal Guts, for though sometimes the great Guts also may be affected; yet there is no such vehemency and danger in them, because they are looser and more ignoble.

The SIGNS are, a fence of paine in the upper guts, rowled up above the navel, most sharp, extending it selfe upwards cheifly to the right side, a puffing up and vehement distension, an eminent swelling of the upper part of the belly and smal guts, a perfect restraint of dung and winde, vaine belchings bringing no ease, mutmurings of the smal guts, and cheifly of the upper; if the evil doe increase, all things are carried upwards. Hence follow vomitings, swellings under the ears, a coldness of the extrem parts and whole body, with a great difficulty of breathing and stoppage of urine, &c.

The conjunct cause is a violent solution of continuity, proceeding from obstruction, corrosion, and other things (of which shal be treated in the differences) for then the expulsive faculty of the guts, rising up to expel that which is troublesome to them, and whenas it cannot move its natural way downwards, because the passages leading to the fundament are possessd with a strong obstruction; or because the part

pained or inflamed cannot bear the weight or acrimony of the humors or excrements, by a converted and peristaltick motion, contracting the fibres of the guts it thrusts upwards first of all, things hurtful, afterwards by the violence of the motion, all things contained in the guts.

The *Cure is more hopeful* if the guts be affected but in part, if it befall children, because they have a strong innate heat, and humors less sharp and biting. 'Tis doubtful if it afflict old people, if a strangury succeed, unless a fever happening and dissolving the matter, plenty of urine flow forth; If the hiccups, or vomiting, or convulsion, or dotage succeed. *Of little hopes*, if upon vomiting up of the excrements either deadness or an acute fever, or with the same an elevated hypochondry, swellings under the ears do follow. *Its Respects.* 1. *The causes*, of which in the differences. 2. *The Pain* which must be mitigated by things emollient and anodyne. *The Blood of a bat* anointed on the hypochondries is confirmed to be of force by wonderful experience.

The Differences are taken from the causes.

I. *One is from external things*, as from the ayr, either too hot and drying, or cold binding up the passages, from deadly medicines and poisons, from the use of pease, serives, quinces, medlars, &c. then the business must be done by vomiting.

Another is from *internal things*, of which in the following Difference.

II. *One is from diseases of the neighboring bowels* which will appear by their proper signs. 2. *From a rupture*, of which we spake formerly. 3. *From an inflammation*, which is common, and chiefly happens in the autumn, which forces to the center the thin and movable humors that were bred in the summer, 'tis known and cured as was said formerly. 4. *From an ulcer and other tumors*, to wit, a schirrus with a continual hardness, and a cancer, which are scarce curable. *They reside* either in the *inward parts*, and then the tumor it selfe is visible.

Another is from the *obstruction of humors*, which are. 1. *Excrements hardened*, and in this all things are more milde, a long continued obstruction of the belly went before it; the cure is ordered by things mollifying, and fat things inwardly and outwardly applied: a suffumigation of a calves Cal and guts boyled in

broth is commended; inwardly *cream or tartar* given one dram and an half weight in broth.

2. *Humors* either thick and viscos, or sharp and biting, which if possible are to be cast forth.

Another is from *wind*, in which glisters of sulfurious and salt things are commended.

Article. II. Of the Collick,

The Collick is a pain of the Collick gut, arising from things that doth dissolve its continuity.

The *Signs* are a piercing and boring sense of paine in the great guts, especially in the left groine, where the collick gut is narrower, carried most of all from the navel downwards, a puffing up and distension of the lower part of the belly, a suppression of excrements and winde, a nauseaousness, belching, vomiting, difficulty of urine, all which will become more certain by the remembrance of things going before, and the demonstration of things consequent. 'Tis distinguished from the paine of the stone in the kidneys because it pricks more, possesses a greater space, is increased after meat by reason of the compression of the stomach, it doth less afflict the back and the thighs, 'tis wandering, and there appears no Gravel in the urine. *From that of the womb*, because this seizeth for the most part upon the stoppage of the courses, is communicated only to the hips and Groins.

The cure must be hastened, because the pain dissolves the strength and spirits, and draws the principal parts into consent. *There is little hope* if they vomit often, and cannot keep their drink, and little or nothing is voided: if it be changed into an impostumation of the Collick gut. If the matter which was contained in the hypochondries be poured forth and carried to the spina and pass into pains of the back, and by a malignity contracted doe produce a falling sickness. 'Tis performed. 1. *By taking away of the Causes* (of which we shal treat in the difference) 2. *By mitigating of the paine* if it be too vehement, where note that we act most commodiously with anodyne glisters, the frequent use of *outward applications* may be, if some evacuation have preceded that *narcoticks* or stupefying means must not be used, neither where the strength is dejected, nor in a cold cause. That *Compounds* are more safely used than simples, and that the same are more securely cast up into the belly, than taken by the mouth. That

we never be unmindful of things appropriate, as are the *guts* of a wolfe dryed and powdered, the *stones* of a horse, *Quercetans powder* compounded of the inward coate of a hens mawe, and the white dunge of the same each half an ounce, the powder of the inward skin which is found in eg-shells, two drams and an half, of rupture wort, cinnamon, each four scruples, of medlar kernels two drams, of anis and fennel seeds each one dram: the dose is from half a dram to a dram at the most with white wine, &c. *Crato* prescribes for preservation. 1. A glisters made of one pound of the decoction of speedwel in hen broth, adding half a pound of mallego wine, and half a dram of mirrh. 2. Outwardly, oyl of mirrh. 3. Three hours after supper one scruple of Zedoary sliced. 4. Every month in the morning before meat one scruple of treacle. See more in Practitioners.

The differences are taken either from the part it self, or from the causes.

I. One is of the *whol gut*, in which the pain is about both the loyns, and below the region of the stomach neer to the navel, which is very dangerous. Another is of part of the Gut, in which if the beginning of it be oppressed the pain afflicts in the right loyn. If the middle of it, the paine shows it self in the left. If the end of it, the region of the navel next to the left is pained. There is less danger ariseth because glysters may have access; but note, that sometime the loyn is affected with a pain above the navel in the hypochondriess.

II. Another is from diseases, as, 1. *Worms*, whose signis and cure see in its place, 2. An inflammation of the Guts, which was formerly described, and is increased by meats and drinks that are hot. 3. *From Stones*, of the cure of which elsewhere.

Another is from humors, I. *Thick and viscous* sticking between the coats of the guts, which is known by this, that the pain is, as if a stake were driven through them, by reason of the violent distension of the coats in that place, neither is it asswaged by belching or breaking of wind, and the gut it selfe is corroded, which proceeds from glassy flame. They arise chiefly in them who are given to drunkenness and idleness, and in whom cholera, which is the spurte of the expulsive faculty, flows not to those places. In the Cure observe. 1. That strong glysters cast in at first and often repeated do more hurt than good, because they stirre the matter but bring it not forth, 2. That we use not for attenuation things eminently hot, lest the matter being suddainly relolved, wind

be multiplied. 3. To attenuate and discuss, the oyle of Zedoary often given from three grains to one scruple is good. *White whorebound*, the decoction of Speedwel, the Oyl of Orange pills given four grains with wine, 4. If the paine continue, we must proceed to dry fomentations, by which that which was melted and attenuated, may be dryed up and discussed. 5. We must abstaine from *Agrick* for feare of vomiting, which at that time is in no wise safe. 6. Where gentle purgers do not good, the essence of the trochisks of albandal extracted with distilled mallego sack, and *Rulandus* his golden spirit of life, must be given from half an ounce to an ounce & half at the most. 7. we must wholly abstaine from opiates. II. From sharp and choleric humors sticking in the coats and vessels, which are known by the acute pain, thirst, bitterness of the mouth, watchings; though by the first glisters some excrements be brought forth, yet afterwards nothing almost is emptied. There are oftentimes joined with it certain Feavers, double tertians, bastard tertians. In the Cure note, 1. That the collick from those causes is of long continuance, and is wont to afflict the patient with many relapses. 2. That those humors transmitted to the joints do cause an arthritic, to the back, pains of the back, to the nerves, a palsey. 3. That they are best of all cast forth with the extract of *Rhubarb* or *Hiera picra* mixt with cooling things lest they offend by their heat. 4. If the pains continue after evacuation, *Mallego wine* may wel be administered with oyle of sweet almonds, 5. That warme milk may also be given in glysters with honey of mercury, 6. In dyer, the fruit of the guord by a certain natural propriety doth oppose the disease.

III. Another is from the retention of hard excrements, of which formerly, and in which we must at the beginning abstaine from giving any purging medicines by the upward parts lest they move the excrements.

Another is from wind contained in the cavity which cannot get passage, which is known by the distension of the belly, a rumbling, murmuring, which shew themselves in the bowing of the left side. It ariseth chiefly from meats apt to produce a fermentation of the humors, as are corruptible fruits, Grapes, new wine, new and thick drink, &c. In the Cure observe, 1. That the cure must be begun with anodyne and emollient glysters. 2. If these profit not, Some laxative must be given in fat broth, of manna, Oyl of sweet almonds, and

other things. 3. Afterwards we must use discutives. Inwardly are commended a glistre made of Mallego wine and oyl of Nuts, each three ounces; aqua vitæ one ounce; the distilled oyles of Juniper and Rue, each two drams: apply it very hot. A mixture of *Spirits of wine and Spirits of niter*, each half a dram on two scrupels given in common water warme. One spoonful of the tincture of orange peel extracted with spirits of wine. *Sperma ceti* with oyl of sweet almonds. Outwardly *gum taceamabac and Caranna* applyed to the Navel. The *antiapoplectical* balsome with one or two grains of *Zivet* &c.

IV. One is *exquisite*, of which we have hitherto spoken.

Another *Spurious*, whose cause sticks either in the peritoneum, or in the membranes which are spread over the abdomen and parts of the belly. 'Tis known by this, that the paine is most greivous, and very lasting, and cannot be mitigated neither by glysters nor medicines, nor fomentations, nor by those remedies, by which the true collick pains are abated; and yet it succeeds to long continued feavers, and other choletick diseases, whose solution is difficult. For nature endeavoring a crisis, and the expulsion of the hurtful humor by the stooles, when she can no where find a ready and cleare way to empty it, doth often cast it out of the veins and bowels into the membranes, whence do arise pains more greivous than the former disease. 'Tis observed by *Fernelius* that both continuall feavers, and tertians, and more frequently quartans are terminated with these pains, which a long time had their exacerbations at certaine circuits, and retained the like order of fits. See concerning this *Mathæus Martinus* on the diseases of the Mesentery.

V. Another is which tends to a particular palsey, which *Palmarius* was wont to cure with a syrup compounded of white wine six ounces; Rose water two ounces; powder of *Alarhazi* or antimony prepared one dram; choice cinnamon one dram and an half; infused all night & strained by gentle pouring it off adding of Sugar eight ounces. The dose is from half an ounce to an ounce, after a draught of chicken broath.

Article, 3. Of Costiveness of body.

Costiveness of body is no casting forth of excrement, or very little in proportion to the nourishment received.

There is no need of signs. The cause shall be explained in the differences. The cure is not to be neglected: for from thence the head is assaulted with vapors, the whole body grows heavy, the concoction of the stomach is hindered, the appetite destroyed, the loines grow weak (to wit the veins being burthend, and a preternatural heat caused in them.) Sometimes the belly is moved by sneezing and coughing, sometimes if the diseased walk on the ground bare footed, &c.

The difference is taken from the excrement, and guts.

I. One is by default of the excrement, which either are not by reason of fasting, and the use of meats of good juice. Or do not stimulate, either by reason they are small in quantity, or by reason of the want of choler, which either is carried to other parts as in the jaundice or is not produced out of cold meats. Or they are hard, either by fasting and a hot habit of body, or by a continued restraint there, by which it comes to pass, that they forthwith grow dry, and the veins of the mesentery do suck forth somewhat of their juice. Or by reason of gross, tough, astringent meat eaten at first, and not moistned by reason of the too great heat of the liver and kidnies; and then there must be care taken of those parts; we must act by mollesyers. *Solenanders liniment* is approved of, if the navil be anointed therewith, 'tis compounded of new oyle, of sweet almonds, goose grease, May butter, dialthea, each two drams; *Coloquintida* sixteen grains, Salt one scruple and half; the powder of *Simple hiera* one scruple diagridium four grains.

II. Another is by fault of the guts, which either do not feel, either by reason of their long custome, or by their stupidity, such as is caused by the drowsy disease, palsey, apoplexy; or by reason of flegme adbering to their coats; of which in the chollick. Or do not cast it forth, either by reason of the narrowness of the passages from the obstruction of the guts, of which formerly; or of some tumor of the mesentery or bowels pressing the guts; or from the fault of the muscles of the belly; or from the strength of the retentive faculty from the moderate dryness.

Article, 4.

Article. *Of a Looseness.*

Point. *Of a Lientery, and Coeliaca.*

Fluxes of the belly are, *A Lientery, Coeliaca, Diarrhy, Dysentery, and Hepatick flux.* *A Lientery is too sudden a voiding by the stool, the nourishment in that forme in which it was received, proceeding from the fault of the retentive and expulsive faculty of the stomach and guts.*

The **SIG NES** are evident, whether you consider the consistence, or the colour, smell, and other qualities of the aliments taken.

The **C A U S E** we have laid in the definition on the faults of the retentive and expulsive faculty, of which hereafter in the differences.

The **C U R E** must be hastened, because this symptome proceeds from a great prostration of the natural heat, and a weakness of the tone of the stomach. *'Tis difficult* if it be supervenient to acute and chrouical diseases, because the strength is impaired. *It respects,* 1. The cause, which must be taken away. 2. The symptome, which must be stayed by astringent means and things that strengthen the stomach and guts.

The **Difference** is taken from the causes.

One is by default of the retentive faculty which is hurt, 1. By the refrigeration of the guts, which is caused. I. By immoderate drinking of cold water, especially when the body is hot, by a southerne wind over moist and excessive cold, especially in bodies of a fine texture, &c. 2. A cold distemper, which ariseth from flegm either generated there, or sent from some other part covering over the wrinkles of the guts, doth make them laxe and slippery, duls their heat, and closeth up the mouths of the mesarick veins. In this for the most part a Coeliaca was precedent. If sour belching which was not before, be supervenient to this of long continuance, it is a good signe. The Cure requires a casting forth of the matter either by vomit or stoole, to which end serve, *Myrobalans Chebul. Citrini tamarinds, Rhubarb.* A restraint of the same and strengthening of the stomach by the distilled oyles of masticke, wormwood, mint, &c. order of dyet, in which wine takes place. II. by a laxness from the continuall use of things oily, fat, and emollient, from whence is too great a mollification of the Mouth

of the stomach, whether also belongs the resolution of the nerve of the sixth payre that contracts the fibres of the inward coat. III. By a strange quality inered, and that either from an evil constitution of the aire, as happens in a popular lientery, or from the unseasonable eating of mushrooms, melons, cowcubers &c. IV. By a thick and smooth scar, such as is wont to follow a great dysentery, and a deep ulceration, which by its thickness stopping the Mesaricks, hinders the distribution, by its smoothness the Retention. This must be rubbed off, and wiped away as it were by eating of sharp things, attenuating and strong abstersives, as *musterd Seed, Onions, Garliche, boney of Roses, Oxymel of Squils,* with a Mixture of things a little astringent.

Another is by default of the Expulsive Faculty, which is provoked, 1. By an ulcerous Disposition, residing in the Superficies of the Guts and Stomach like pustles. 'Tis known from hence, that there was no Coeliaca going before, and there is a sense of knawing and pain in the stomach. In the cure if the Stomach be in fault, eschew vomits, let the Belly be loosned with lenitives, having some astriction, avoid Fat things. If the Guts be affected, vomiting is good. 2. By sharp humors, whether generated there, or falling from some other part, especially the Liver. It is known, as the former disposition. The cure is hard if it be of long continuance, because it passeth into a dysentery: if it be with difficulty of breathing; and a pricking in the side, and the humor fall down from the brain, so that part of it fall upon the breast, because it ends in a consumption. If it be long with gripings, wormes, and paines, because these being over it hath a swelling followes. The sharpness is abated with the decoction of barley, succory & other cooling things: if it continue long, rhubarb prepared in rose water is effectual. 3. From the taking of poyson, and then things alexipharmical must be mixed, the juice of dittander with syrup of pomegranates, is commended.

II. *A Coeliaca is a suddaine passing of drink and meat out of the stomach into the gutts, in which they flow forth like unto chyle, or a milky substance.*

The **Signs** are evident. This passage is completed within six or eight hours after meat, so that the thinner and subtler parts of the nourishment are altered and concocted, and so pass into the nourishment of the body, yet the body because it is not sufficiently nourisht, wasteth

eth a way. The pulse is frequent, and heat afflicts as if there were a fever; when they are going to stool some light faintings seize on them. Before it breake forth the belly is distended and struts out.

The CAUSE of it is cheifly the ill distribution of the chyle, which is bred by the obstruction either of the mesentery, spleen, or liver, and then the chyle is voided white, the obstructions must be opened. Or the weakness of the attractive faculty in the liver, and then the chyle is somewhat dyed with a little reddish colour, the liver must be strengthened. Or the immoderate Quantity or corruptible nourishments and drinks; for hence there is much filth heaped up in procees of time; being increased in those parts tis corrupted, and by its quantity or quality provokes the expulsive faculty.

The CURE Respects the Causes, as we have said, al the superfluous humor being emptied the flux staves of it self, sometimes on the same day it began, sometimes on the next.

Point. 2. Of the Diarrhy.

A Diarrhy is an immoderate, frequent, and continual going to stoole, in which excrementitious and sincere humors, by their quantity or quality stirring up the expulsive faculty of the stomach and guts, do flow forth without an inflammation, lientery, exulceration, Tenesmus, or vehement sense of paine.

There is no need to touch upon the Signes, for they are explained in the definition.

The Cause is al that which doth preternaturally irritate and encrease the expulsive faculty of the stomach and guts: on the contrary doth debilitate and destroy the retentive, whether it be done by it self, or by consent.

The Cure is difficult if it befall a great bellied woman, because it withdraws the nourishment from the child, by moving, relaxes the ligaments and by raising up of filthy vapors causeth abortion. 'Tis easier if vomiting succeed, because there is a revulsion of the matter from the lower parts to the upper. If it happen after an ophthalmy, because the matter is revelled from the upper parts to the lower. If it be supervenient to one sicke of a dropsie, though it be violent, at the beginning of the disease, in full strength and the bowels sound, because there is an evacuation made of the matter causing the disease from the whole habit of the body by the stool. It must not presently be attempted

if such matter be purged as ought to be, if it do good, and they beare it easily, if there be no fever. For oftentimes to have a flux for one day or more is healthful, if it stop within seven dayes, if it be presumed from the circumstances to be critical. 'Tis accomplished. 1. By Emptying of the matter it selfe, By rhu-barb in substance, mechoacan, tamarinds, myrobalanes, and syrup of roses solutive. 2. By revulsion, which is done by bleeding, vomiting, frictions, ligatures, urine, sweats. 3. By the use of astringents, of which if we consider the simples the cheife are, tormentil roots, Plantane, avens, sloes. The leaves of plantan, loosestrife, shepherds pouch. The flowers of Purslane, or cresses torrifed. The flowers of roses, pomegranates. Woods, red Saunders. Spices, Nutmegs. Minerals, terra sigilata, bole armynicke, Crystall, &c. If the compounds, they are, Tragæa of Elder berries, Quercetan in his pharmacopœa, c. 21. the bones of a man calcined, terra dulcis vitrioli, crocus martis, burnt hartshorn, new treacle, old conserve of roses, diascordium, sperniola compositum, and if the flux be too vehement, Philonium Romanum, and laudanum opiate. 4. The diet, in which steele water takes place; an immulsion of sweet almonds in tormentil water, or the decoction of Oake leaves, the powder of diatragacanthum in reer eggs, &c.

The Differences of a Diarrhy are Various.

I. One is from things external, as purging medicines causing a super-purgation, which is stopped with the root of dropwort given in wine, by steeled milk given by glyster, by laudanum opiate. From possons, against which alexipharmaca must be opposed, especially some graines of an emtald prepared in a convenient water. Another is from things internal, of which hereafter.

II. One is from the whol Body, which is either with a Fever, or without a Fever, as shal be said in the following Difference. Another is from some part, which see in the fifth Difference.

III. One is with a Fever, the matter causing the Flux being transmitted from the whol Body, which is known by this, that things very crude, moist and watry, are cast forth with a noise, either often and little at a time, or much and altogether, and there are present the Signs of a Fever. 'Tis hardly Cured, if in a disease of long continuance with lothing of meat

meat, stools be sincere, that is, such as have no watery moisture mixt with them because they shew a burning up of the native moisture by a weak heat: if they be voided with often noise, and too much, because that argues a crude stoole from vicious humors, this because the often labor of going to stool causeth deliriums, and these have danger of fainting depending on them: If the stools be thick, white, green, yellowish, frothy, because they demonstrate crudities, a disturbed flux, plenty of yellow choler in the guts, a mixture of a windy spirit with the humor. Sometimes by no means if the stools be black, fat, lived, like the rust of brasse and stinking. The cure is undertaken by the same means as before, having respect unto the Feaver. It is divided twofold. 1. Either it is *Critical*, which is to be stayed and promoted; or, *Symptomati- cal for a time*, which nature stimulated by the quantity or quality of the matter, doth order before concoction, but with strength of its faculty, which is neither to be stopped nor promoted, nor sometimes to be left to nature, but the matter to be employ'd must be revell'd, altered. Or *plainly Symptomati- cal*, which is from the irritation of the cause of the disease, nature being unwilling as it were, which must be oppos'd by the remedies before reheard. 2. Or it is *colliquative*, or not, of which see the following difference.

Another is *without a feaver, which is known* by this, that the humor is seldom voided under its proper forme, but changed, and that 'tis signified by no signs that it doth proceed from the too much heaping in of corrupt meats, or other causes; there are no signs present of any particular part affected. It is caused sometimes when serous humors the cause of a drop- sy are voided by the stoole, or when in sound men, whose veins abound with very much serum, the night or morning cold of the autum peircing deep into their bodies doth repel the serous humors from the outward vessels towards the inward, & into the greater passages of the vena Cava, which at last being carried to the bowels, and to the creeping branches of the mesentery, flow into the cavity of the guts. Concerning the cure, note, That medicines are best given in a *solid form*; That Oyle must not be mixt with *vomiters*; that we must act with things *incrassating* and *absterive* together; that the *Serosities* are best of all disperied by *sweaters*.

IV. Another is *colliquative*, which other- wise is called a *colliquative flux*, which is known by this, that the excrements are for the

most part endewed with divers colors, com- monly very stinking, Sometimes fat and vis- cous, that there is a feaver present, either burn- ing or malignant, or hec tick, the body sud- dainly is wasted beyond measure, &c. It hap- pens in burning feavers, a hec tick, putrick, in- flammations, in which by the great heat, not on- ly the humors in the veins, but the next aliment of the parts is melted, and if it be thinner it is dissipated, if thicker it flows to the belly. The cure is for the most part in vain, especial- ly in hec tick bodies and putrick, whose haire falls off: we must act with coolers, moistners, and somewhat astringent, which are not so much to be apply'd outwardly as inwardly, least the flowing forth of the preternatural heat be hindered.

Another is *not colliquative*, of which in the third difference.

V. Another is *from the guts* when the mat- ter causing the diarrhy resides in them, and then the causes are, 1. Sometimes *Worms*, whose signs will be ready, and they must be driven a- way with their proper remedies. 2. The *ob- struction of the mesaraick veins* that they attract not the chyle, which being collected there, doth by its plenty stimulate the guts; and then the chyle is voided white; a consump- tion followeth if the fluxe last long we must act chiefly with openers, and truly with such, which also are good for the liver, and do not provoke to stool.

Another *from the brain*, which sends an in- sipid or salt slegm into the Guts, chiefly in the night, the patient sleeping on his back, which either makes the coat of the stomach and guts slippery, or mixed with the meat weakens the concoction. 'Tis known by this, that there are present the signs of an infirme brain, and 'tis most familiar with stutters, by rea- son of their moisture. In the cure, *Gargarisms* and *masticatories* must be avoided, least the matter of the catarrh be drawn into the stom- ach. *Vesicatories* may be apply'd to the first and second vertebra of the neck.

Another *from the stomach*, which is known by the signs of the stomach affected. It ariseth either *from corrupt meats*, either of themselves then because nature is very much irritated, the other humors in the body are stirred up, an evil disposition is brought into the stomach, and this diarrhy is dangerous; or from the manner of taking them, and then there is less danger. Or from *excrementitious humors* heaped there by reason of depraved concoction; which some- times also are sent from elsewhere, by reason of their

their evilness are not attracted by the liver, and do stir up the expulsive faculty to excretion.

The Cure hath nothing Singular.

Another is from the Liver which is obstructed either in the hollow part, where we must act with openers; or in the Gibbous part, and then diureticks do good. Or abounds too much with Cholera, and then there will be the signs of a distempred Liver. In the Cure is commended for its attraction; Old Cheese broken small, washt with some cooling and astringent water, and fryed in a Pan. The Diureticks must not be sharp.

Another from the Spleen, which Casts off a Melancholly Humor collected there, or derived from some other part, so that the stool is sometimes black as Pitch, by reason of blood from some vessel opened in the hypochondries and poured into the Guts, and there burnt to a blackness, and then there are signs of the Spleen affected. Blood falling out of the Vessels and concreting, if it be stopped, causeth swoonings, and other greivous evils. Sometimes the Scurvy concurs. Least the biting Humor exulcerate the Guts, detersive and tempering Clysters ought often to be cast in.

Another from the womb, when the Humors and Courses being stoppt are carried to the Liver, from thence to the Guts. Then sometimes periods of time are observed; in the Cure regard must be had to the Courses.

Point, III. Of a Dysentery.

A Dysentery is a frequent, bloody, and Purulent going to stool, with a Pain in the Belly, and Exulceration of the Guts, from a sharp corroding matter peculiarly offensive to the Guts.

The Name of Dysentery is attributed also to a diarrhy, in which the Humors which are voided do Cause torments, although there be no Exulceration: and with this if blood sometimes be voided, that comes rather from an opening of the Vessels, than an Exulceration of the Guts.

The SIGNS are an often going to stool, because the Guts are stimulated by the acrimony of the Humor; sometimes continually if the matter be sufficient, sometimes it returns periodically every third day. The pain and torments of the Belly are especially at going to stool, and a little before the excretion. Those things that are voided are, sometimes Cholera-

ick, and of divers kinds, sometimes mucous and bloody, sometimes wholly different from the natural kind of excrements. A Fever sometimes ariseth presently at the beginning, sometimes when the Disease hath lasted for some daies, by reason of restlessness and putrefaction. See the difference from an Hepatick flux in the Chapter of that; It differs from an impostumation, at whose breaking there follow eliquations as it were of matter, because in that a beating pain doth precede near the affected place, and there is neither biting nor looseness, &c.

The CAUSES are sharp Humors corroding the Guts, and peculiarly offensive to them, containing I know not what Antimonial, Helleborine, or somewhat like unto the Sea Lungs, offensive to the Lungs, and like to Cantharides inimicous to the bladder. These infected by a Dynterical Contagion, peircing into the Veins and arteries do cause a Fermentation and imprint a disposition like unto it self, by a stain on the wholes of blood, and stir it up with the other Humors as purgers do: they fix also an evil disposition on the Guts, so that the chyle passing by is changed into a vicious Humor, and the Excrements of the Belly receive not a natural Elaboration and quality. Sometimes in human bodies they are rendred such by the occult influences of the stars; hence sucking children, who never came into the open aire, and were only nourisht with their Mothers Milk, are sometimes taken with a Dysentery. But they have their Original from Waters carried through Leaden and Old condites; from the spring Aire, rainy and southerly after a dry and northerly winter, both by reason that the drying up of the Humors is hindred, and by the strong putrefying power in moisture: from a hot and dry Aire, thence at the beginning of the autum, and end of the Summer this Disease is raised, and Reigns chiefly in the hottest Countries. From evil and unaccustomary Meats, hence in Egypt and India 'tis common because they feed on the flesh of beasts which are nourisht by Cassia Fistula. From autum, Fruits, both because they easily putrefie, and because by their attraction they retaine those which are putrefied. The use of Grapes and new Wine, because they make a Fermentation, and are easily tainted with foulness, Blasting, dews.

The CURE is Difficult in women by reason of their tenderness and weaknes; in Children by reason their Guts are moister, and therefore subject to Putrefaction; in Old People

people by reason of the greatness of the cause that is the acrimony of the humors in a body indisposed, and Feebleness of strength. *'Tis doubtful* if the stools be sincere, that is, mixt with no waterish moisture. If the effusion of pure blood be joynd with it, for it shews that the greater veins are corroded. If loaching of meat afflict with a feaver, because the stomach being drawn into consent, the concoction is weakened, & there is some ulcerous putrefaction in the guts. If choleric vomings seize at the beginning, because it argues a great power of boyling choler which troubles the upper and lower belly. If the stools be continual, or that stopping a new dilute flux, bloody like to an hepatick flux; or a filty diarrhy do follow. If it invade with a feaver or with divers colored stools, or an inflammation of the liver. If it happen to a woman great with child, and hate not after the delivery of the child and voiding of the secundine. *Of some hopes*, if the excrements be changed, unless the change be to worse, if belching or farting succeed because it is a signe that nature doth begin to concoct. If it betail the splenick, because the melancholly humors are carried away, where we must wel distinguish between the melancholy blood concrete in the guts, and black choller. If it follow madness, because it betokens that the matter is translated from the head to the lower parts. *Of little hopes*, if black choller be voided of its own accord, no feaver going before, nor good concoction appearing, because it differs nothing from an ulcerated cancer. If convulsions and ravings succeed, because they shew the matter is carried to the head and nerves. If peices of flesh be voided, because the substance of the guts cannot be regenerated, nor a scarre be drawn over so great an exulceration. If any one releevd from an acute disease be taken with it, because his strength is not able to undergoe it. If in process of the disease the hickops follow, if a black puffle like to a vetch appear behind the left ear with a great thirst, because it signifies death on the twentieth day.

The Cure is accomplisht. 1. *By revulsions and derivation of the humors* rushing to the guts, where *Bleeding* takes place if there be plenty of blood: if it rush violently with the humors to the guts; if there be an inflammation, or if it be feared. If the Feaver be continual. If a hot liver minister matter. *Yet note* it must be emptied by little and little, timely and at the first dayes, least the strength be dejected, the median or liver vaine must be opened with a smal orifice: the vein of the ancle if some accustomed evacuation be stopt. 2. *By emp-*

tying the corroding humors, so that the strongest be avoided, because they move the humors to the guts. Let the purging be at the beginning, before there follow too great exulceration; and that very often that the humor may be taken away. The tyrup made of the infusion of *damaske Roser* is commended, *Myrobalans*, *Tamarinds*, the infusion of *Rhubarb* first of all not torrefied, afterwards torrefied if we would binde a little. *Mexicoacan*, by whose frequent use the belly is dried. The decoction of *myrobalans*, which see in *Sennertus*. 3. *By the absterision of the same humors* by glysters made of barley, the yelks of eggs, honey of roses, Sugar and other things, according as the exulceration is greater or less. 4. *By mitigation of the pain*, for which serve *cows milk*, so that the body be purged, and if there be a Feaver. Let it be mixt with plantane water, or let it be boyled with flints, with yelks of eggs, and the mucilage of quince seeds and cast in by glister. *Mulein*, goats suit mixt with the same, a clyster described by *Sennertus* of a *weathers bead*. 5. *By stopping of the flux*, by the medicines rehearsed in a diarrhy, to which ad *raw services*, if the flux be most desperate a *Nutmeg* roasted in the embers if there be no feaver; the decoction of the clay of the furnace in steeled milke, new treacle if there be no inflammation, the powder of a *dogs-turd* fed three dayes with bones, drank with goats milke, *Laudanum opiate*: but these ought so to be administered, that sometimes hot, sometimes cold things be given. To cooling things let hot things be mixt that helpe concoction; al in a smal quantity least the flux be stopt suddenly, and let them be given often, because they stay not long in the guts. 6. *By the use of mundifiers and things that fill up the hollow ulcer*, &c. in which observe that when as the pain is exasperated by the use of detersivnes, the glyster being voided, another must be given made of milk. 7. *By the application of topicks*, concerning which, note that astringents are of force rather in lean bodies than in fat, when as in these they cannot penetrate. Things very cold, neither vertyually nor actually must not be chosen: vinegar or thin white wine must be mixed with them. Cataplasmes are of no force in a dysentery from sharpe choller, when as they leave a biting quality behind them. 8. *By dyet*, in which biskit bread, milk of sweet almond, the flower of sugar, &c. take place.

The Differences of a Dysentery are Divers.

I. One is in making, when the exulceration begins onely in the superficies of the guts, and

Bb

there

there from them suffering an inflammatory disposition, their temper being destroyed.

Another is already made, when the corrosion peirces deeper, and either fibres and smal skins of the inward coat are voided with blood, or peices of the fleshy substance cut off from the proper substance of the guts are voided with membranous shavings and much blood and purulency, which is the utmost degree of malignity.

II Another is of the smal guts, in which the pain is most acute by reason that they are membranous; the stool is longer after the torments, the blood is exquisitely mixt with the excrement by reason of the longer passage, the blood is blacker. Purging medicines must be given by the mouth: 'tis almost incurable.

Another of the great guts, in which the paine is less by reason of their fleshiness, 'tis chiefly perceived about the navel, by reason of their situation; the stools are quickly after the torments; the blood & purulent matter swims upon the excrements of the belly. Note that for the most part the great guts are tainted, and being tainted medicines are best administr'd by glisters. Sometimes the stomach and neighboring parts are drawn into consent, sometimes the belly over against the ulcer and hole is perforated, by reason of the putrefaction communicated to it.

III. Another is from things external, viz. either from poisons, whose cure is performed by vomits; by things that dul them whiles they teare, as milk, rice, fat broths; by antidotes, chiefly six grains of an emerald prepared; but they must abstain ten hours from meat, and sweat. Or by purging medicines that are very strong, and then if you consider the cure, after abstersives 'tis good to drinke warme milke, new treacle, &c.

Another is from things internal, of which hereafter.

III. Another is epidemical and malignant, in which we must act with things alexipharmacal, amongst which are harts-horn, terra sigilata, Corals, saphyres, water germander, pulvis Bezoardicus aureus. The same may be mixt with purgers.

Another is simple, to which those things above may be applied.

V. One is from Yellow cholera, from which for the most part it begins, the which sometimes is generated in the stomach, sometimes in the guts, sometimes is cast from the bladder of gall, the meteraick veins, the whole body.

Another from Black cholera, which if it be voided by reason of a crisis in feaverish diseases it may be cured. It ought not to be purged

before it be tempered, and then with Lenitives.

Another is from Cholera of a leek color, and the rust of Brass, which though by Nature collecting it self it may be cast off, yet not presently.

Another is from Salt Flegm, which sometimes is produced in the head from a great heat, sometimes in the stomach; being carried to the Guts, and by its clamminess sticking long to them, it troubles them, and at length Exulcerates. 'Tis hardly Cured. 'Tis well rooted out with Agarick and Mechoacan.

Point, 4. Of the Bloody and Hepatick flux.

I. The bloody Flux is known both by the sight, and by this, that it is voided without pain and exulceration. It ariseth. 1. By reason of plenty of Blood proceeding either from a hot distemper of the Liver, and then there will be signs of fulness. 'Tis voided without pain and wasting of the Body; the Urin is thin, of a Goldish color. Thust oppresseth both by reason of the wasting of the moist substance, and the heat of the Liver. In the Cure the diet must be abated, the Liver must be corrected by succories and other proper coolers, steeld milk, &c. If Cholera be mixt with it, it must be emptied. Or from the cutting off of some member, and then blood must be let according to Course. Or from the suppression of some accustomary Evacuation, and then we must act by frictions, the stoppage must be opened. 2. by reason of a vein broke or opened, which is known by this, that it is cast up also by vomiting. Some vehement fall hath happened before. Fainting is Caused by reason of the putrefaction in the stomach. The cure is difficult.

II. An Hepatick flux is either Exquisite, which is known by this, that that which is voided doth look thinly red, as the washing of the flesh of a beast newly kild, doth not clod together, doth flow more frequently, yet not so often as in a dysentery; without any knawing, but yet not without a Heavy pain; the Eyelids are swelled and the Feet, the excrements are crude. It ariseth from a weakness of the Liver, and the defect of natural heat in it, from causes that do dissipate, or choak it up. The Cure must be hastened because this Disease Leads to an ill habit of Body, a dropse, and Consumption. 'Tis hard when tis beginning, and in young men. Almost incurable when its inveterate and in old men, and in them also whose spittle is bloody, somewhat pale, or clearly choleric. It excludes Purgers, and

Chap. 2. Of the Symptoms of
the right Gut.

THE Symptoms of the right Gut are; *Itching of the Anus, Tenesmus, the flux of the Hemorrhoids, and the stopping of them.*

Article, I. Of Itching and the Tenesmus.

The Itching of the Anus is a Certaine painful tickling of the same.

There is no need of Signs. The Differences are taken from the Causes. 1. One is from *sharp, Salt, and Viscous Humors* sticking to the Sphincter, which must be emptied: but the Arse must be washed with the Decoction of the Leaves of Mallows, Violets, Roses with Plantane water and a little Alum. 2. Another is from *the Excrements left there*, which are well washed off with the Decoction of Mullein. 3. Another from *Worms*, of which in their Chapter. 4. Another from *an ulcer*, to the which the Cure must be directed.

II. *A Tenesmus is a continual desire of going to stool, with pain, in which either nothing, or a few Mucous things are voided.*

There is no need to add any Signs; sometimes the right Gut falls forth, and a dropping or difficulty of Urin happens, by reason of the Neeriness and consent of their Parts.

The CAUSE is whatsoever is fixt to the extrem part of the right Gut, and can stimulate its Expulsive Faculty: but what that is, shall be explained in the Differences.

The CURE must not be neglected, because from neglect of it oftentimes a fordid Ulcer remains, which sometimes passeth into a Fistula. It respects the Causes and the pain which must be mitigated.

The Differences are taken from the Causes.

I. From *the too great cooling of the right Gut*, which is taken away with the Decoction of the Flowers of mullein, chamomel, Melilot, Dill, with the Seeds of Flax, Fenugreek, Bran.

II. From *the Stone or worms*, concerning which see in their places.

III. From *the cause producing a Dysente-*

ry, and then the manner of Cure is the same almost with that of a Dysentery. Let the quantity of the Clyster be but little, the Ulcer be washed and healed. *The Mucilage of the Seeds of quinces and Fleawort* extracted liquid with Water or Plantane, Nightshade is good, adding Bole armenick or washed aloes and cast in by Clyster.

IV. From *Cholerick humors, or Flegmatick and Salt* sticking to the same, where a Clyster of the broth of *weathers Flesh* with a few drops of Oyl of Wax being given takes place, &c.

Article, II. Of the Flux and stoppage of
the Hemorrhoids.

The Flux of the Hemorrhoids is too great a casting forth of blood by the Hemorrhoidal Veins.

This Disease hath no need of SIGNS: First of all there flows black blood, seculent and thick, and it comes forth as it were by drops whiles they wipe their brich, after wards good and ruddy, at last yellowish and pale. From thence the thighs grow weak, the Hips feel a heavy pain, the color of the Face is depraved. Sometimes it observes its Periods, sometimes it neglects them.

The CAUSE is whatsoever doth either Irritate the Expulsive faculty of the Veins and arteries of the Liver or Spleen; or hurts their retentive.

The CURE shews it must be suppressed, which is performed by *Revulsion*, by opening a Vein, and by the external and internal use of *astringents*. *Outwardly* are good by a propriety, *a girdle of the Leaves of Black Hellebor* bruised, fresh, and girt about the naked body; upon the use of which, if pimples be raised the pain must be taken away by its remedies. *Sponges* which grow under the seats of hot Houles in baths, if they be burnt to powder in a new pot, and strewed on. *Colcothar* or that thick Feces which is left at the distilling of Oyl of Vitriol, if they be toucht with it, one only being left. *Inwardly* is commended *Essentia Martis*, of which see *Hartman*. A Confection of *the refuse of Iron*. The Old Conserve of *Roses* with Bole armenick, &c.

The Differences are taken from the Parts and Causes.

I. One is of *the internal*, which ariseth from a branch of the Spleen, extended through the Melentery

the like matter, which either is collected there, or sent thither from some other part. It is collected either in its veins and arteries, and then because the breast hath the greatest consent with the hemorrhoidal artery, because the trunk from whence the artery ariseth descending from the heart, presently at its first rise, doth propagate the intercostal branches, there are continuall pains felt in the breast: or also in its glandules by their laxness easily drinking up the matter. The cure must not be neglected, because 'tis wont to fore-run a dry dropsy. But it hath nothing singular, except this, that by those arteries not onely the first passages, but also the whol body might be purged, whether you give purging medicines, or inject glysters: and this perhaps is the cause, that purging medicines layd to the navil do move to stool.

II. The obstruction of the mesentery is twofold, one when the milky veins are obstructed, which is known by this, that a chylous and white flux of the belly doth molest, and a consumption follows, the matter necessary for the nourishment of the body being denyed. That ariseth either from a thick, crude, clammy, viscous chyle, generated of the like meats, or from a tumor of the glandules compressing them. Another is when the mesaraick veins are stoppt, which is known by this; that the matter restrained, causeth a sense of distension and heaviness, beatings of the arteries about the back are troublesome, after taking of meat the evil grows more fierce, and the stomach is compress'd, &c. That ariseth either from vaporous and thick winds, or from sharp humors, and then the paine is more vehement, sometimes while the evaporation lasteth, the evil possesseth the whol cavity of the breast, that somewhat is at hand like unto a suffocation; sometimes there is a tumor raised about the mouth of the stomach, and vaine belchings are produced, those things being suppress'd that should be voided by the lower parts. The cure is perfected,

1. By openers, and those indeed gentle. That give strength to the liver and Stomach, penetrating incitive, drying, lesning putrefaction, and a little while astringent; not by sweet things but bitter reduced into the forme of electuaries or pills, but that liquor be drunk after them. By tartarous things: unless the saltness or sharpness of the humors do hinder, by things that favour of Oxymel. 2. By purgers, unless windiness do hinder, and those gentle, not constant, after the same manner, given by little

and little, liquid. 3. By vomiters, but not violent, Platerus his essence of broom is commended. 4. By diureticks that make thick humors fluid &c. the liver is strengthened by Leonius his pills of the refuse of Iron. By Mercatus his antidote of Steele. By Penotus his arcanum of vitriol, sulphur, and fallow, &c.

Chap. 2. Of the inflammation and impostumations of the mesentery.

AN inflammation of the mesentery is a tumor of the same arising from humors poured forth with the nourishing blood into its spaces, or deeply impacted in its glandules, and putrefying by the accession of external heat.

The signs are a slow fever, for the most part a semitercian, a pain in the Loins, sometimes on both sides, sometimes in the right, which extends it self to the fore part of the belly, above and about the Stomach; costiveness of body, chylous stools, which for the most part a thin matter doth follow, sometimes sincere and yellowish, sometimes mixt with the excrements. It differs from the pains of the stomach, of the womb, Chollick, and Stone, by the signs expressed in them. From the Fatness of the Belly, because this may be all comprehended in the hand, because it cleaves to the upper skin, and may be separated from the muscles of the belly. From a tumor of the muscles of the belly, because that where 'tis prest causeth paine, and doth not so much bind the body.

The Cause is explained in the definition; the blood is poured forth thither, because the way for it to the guts is stoppt, either by astringent things, which happens in a dysentery ill cured, or by plenty of thick, clammy humors, suddainly rushing to the guts.

The Cure must not be neglected, for 'tis dangerous both by reason of the fever with which the patient waits, and by reason of the putrefaction, by which the mesentery is corrupted. But 'tis extended sometimes to the fortieth day, sometimes to the eighty, sometimes it lasts all the life time, a fever and collick paines sometimes returning, sometimes ceasing. 'Tis performed as in other inflammations, only note, that the coolers ought to be more benign

least the matter be more impacted. *The purgers* must be none or gentle, nor in the beginning left more be attracted, but when the inflammation tends to concoction. Neither is *Cassia* safe enough in the undertaking of the Cure.

As concerning the Differences, sometimes the *Guts* also are inflamed, and then all things are worse. Sometimes the Inflammation sticks about the *glandules*, and then they are lighter. Sometimes the neighbouring *Liver* is drawn into consent, and then a burning Fever for the most part goes before, the evil afterwards tending to suppuration, a slow Fever follows.

II. *Impostumations* that do molest the Mesentery are various; for, 1. If you consider the place, either they are above the Navel, or beneath it, or about it. 2. If the Constitution, sometimes the Mesentery is found made up of many great *Schirrous Tumors*. Sometimes *Stones* are found in it. Sometimes it hath infinite *Impostumations* without sense and pain, included in their proper bagg, and containing, a Gypseous, glutinous or liquid matter. But they are hardly known, and sometimes not till after death; yet if the Belly be swelled, and the Symptomes present, and there are no signes at hand, neither of a dropsie, nor of some other Disease of affinity with it, we ought to suspect them. But they are voided prodigiously. Sometimes of its own accord this filth breaks forth by the stool, and oftentimes fetching a circuit it returns again. Sometimes being copiously poured forth between the Peritoneum and Muscles of the Belly, it either falls into the Cavity of the belly breaking the Peritoneum, or breaks outwardly by an impostumation, &c. Sometimes this happens, the patient bearing it well, sometimes it hastens his death. Concerning their Cure these things in general must be noted. 1. That the belly ought alwaies to be loose. 2. We must make hast with resolving materials, but light, that have an aromattick vertue, mildly astringent. 3. Amongst deterfives *Mercatus bis Syrupe of Steel*, bears the Palm. 4. To Consolidate, *Cypres Turpentine* any way prepared is to be preferd before al, especially if the matter offending lurks in the Loyns, and about the Kidneys. 5. For the speedier ripening of the impostumation a Bath of sweet water must be often used. 6. That the strength is exceedingly confirmed with the essence of *Asmart*, and Oyl of

vitriol. 7. Sharp things ought to be avoided, because by their penetrating and absterfiv Faculty they corrode the Ulcers, and destroy the temper.

Chap. 3. Of the Pain of the Mesentery, and the affects of the Caul, and Pancreas.

THE pain of the Mesentery is a said sense of it, which ariseth from a hot and sharp matter thrust into the membranes of it, afflicting with a perpetual Pain of the belly and Loins by intervals, especially the time of *Autum* drawing neer, and sometimes is dispersed into the head and whole body.

The Signs of that to come are a Jaundice disposition conspicuous in the eyes, and every where about the temples, the appetite lost, a heaviness increasing in the Hypochondries, seldome going to stool, ruddy Urin. Of that present, a strong suppression of Wind and Excrement, a vehement Pain of the Belly and Loyns, a casting up of Medicines by vomit, little success of Clysters, &c. The strength is not to be Judged by the Puls, for that is smal in al great pains. Of that Increasing, the sick cast off al Hopes, the stone for the most part gathers strength, the neighbouring Muscles of the Belly and the Peritoneum from the internal putrefaction gather Corruption, the pains diffuse themselves into the whol compass of the belly, nay they pass to the utmost joynts, yet chiefly to those of the shoulder and Feet, at last Convulsive motions possess them. It is distinguished from the pains of the Womb, Kidneys, Ileon, Sciatica, by the signs which are delivered there.

The CAUSES are sharp putrid Humors, endowed with a quality inimicous to al the bowels, especially the liver and stomach, which after Nature hath in vain tryed to empty by stool, are cast into the Mesentery, which is nothing else than the peritonæum doubled and fastend to the Loins.

The CURE is doubtful if the pains be low, because they are the stronger. If they be felt above the navel, and are not dissolved by any Medicines, because they end in a dry dropsie. If pains of the Kidneys succeed by reason of the neerness of the mine of corruption. If

new obstructions succeeding, the evil from thence grows more fierce. Of little or no hopes if vomitings molest, cold sweats, and often hiccups. If they last long, the patients be feverish and loath meat; because 'tis to be feared, least the paine proceeding to the head, do suddenly kil them after the manner of convulsions if watchings preserve and be vehement. If an inverted courle of nature draw neer. If a hectick arise, or a suppuration of the peritoneum and neighboring parts. 'Tis performed, I. By taking away of the Causes, where do take place, 1. Glysters, which to mollesy ought to be made of Goats milk with cassia and oyle of violets. To cleinte we must ad a little hiera picra, and honey of violets, 2. Purgers by intervall repeated, if you perceive obstructions by the ruddy water, gentle, from which notwithstanding we must exclude manna by reason 'tis abundantly windy, 3. Preparatives and openers of the decoction of *Scorzonera*, grass, strawberries, with the cordial flowers, to which we must premise anointing of the belly with Oyle of Violets, dil, Chamomel, a little butter in which a Snakes Skin ought first to be boyled. 2. By mitigation of the pain by cataplasmes, unctious, fomentations, baths of sweet water, narcoticks also mixt with purgers, &c.

II. The Pancreas doth chiefly labor of obstructions, whence the stomach by reason of its neerneis is affected, pains and the sence of a weight are caused about the region of the stomach, and pulsations in the back, by the compression of the celiacal artery, and also a difficulty of breathing molests them by the content of the midriffe. The cure is perfected by the same remedies, as the obstructions of the spleen.

III. The Caule by twiggs from the spleen branch, doth oftentimes receive feculent humors from the spleen, in that part especially, which is between the spleen, the midriff, and the stomach, in its cavity in the left hypochondry under the diaphragma, arising from the connexion of the stomach, Caule, colon and bowels, and having no passage out. Oftentimes from thence the belly in the left part towards the navel is raised up into a tumor, oftentimes the belly being prest, a sound and noyse is heard. They cannot be emptied unless they vanish by the continued drinking of bath or sharp waters. If it putrefy or suffer an impostumation the cure is in vaine,

 Titile VI. Of the affects of the Liver.

Chap. I. Of the diseases of the Liver.

Article, 1. Of the Distemper of the Liver.

The diseases of the Liver are, distemper, obstruction, inflammation, a scierus, wounds and ulcers.

The distemper of the liver, is a swarving of the same from its natural temperament by reason of external and internal causes.

The Signs are fetched from the hurt of its action, and others (of which in the differences.)

The Causes are either not natural and external, or the neighbouring parts, as the stomach, heart; and that either by contact, or by communication of matter: or the collection of matter in the vessels or parenchyma, by reason of some fault of the liver, either innate, or acquired.

The Cure varies according to the nature of the differences. Internal remedies, because the liver is situate in a lower place, ought to be the more efficacious. 'Tis performed, by alteration, and removing the matter offending.

As concerning the Differences, the distemper is fourfold.

I. One is hot, and that either simple or without matter, which is known by this, that there is a loathing of meat, and most of all of flesh, and nevertheless fastings doth hurt, a vehement thirst troubles them, the whole body is hot, especially the palms of the hands, and soles of the feet, and either they are moist or dry, the belly is somewhat dry by reason of the extraction of the moisture from the chyle. It is cured by coolers, amongst which the cheise are, the roots of Dandelion and Strawberries, the leaves of Succory, Endive, the seeds of Sorrel, the greater and lesser cold seeds, the wood of Saunders, fruits of Cherries, Currans, Strawberries. Of compounds, syrupe, of Corals, Strawberries, Sorrel, Citrons, Succory. The Salt of Coralls. Pouders, Diatrion Santalon, diarrhodon Abbatis, Diamargaritum

Diamargaritum Frigidum. Mynsichtus his niter vitriolate. Amongst external things, *Saccatum Saturni*, a Cerote of *Saunders*, oyle of *green olives*. The mixture compounded of the *Water Lillies*, *beubane*, the flowers of *white lillies*, *plantane*, *Red Roses*, each one ounce and an half. Salt of *Saturne*, *Campbure* dissolved in spirits of wine, each one scruple: *Sal Prunella* half a scruple, adding a little of *Tragacanth*, and applied to the right hypochondry, &c. Or with matter, which is known by this, that a bitterness of the mouth, a loathing of meat, and a vehement thirst doth trouble them, and a fever either an intermitting tertian, or a slow fever, or erratick, doth vex them, by which the body by degrees is dried up. That cholera doth break forth by vomiting and stooles, first of al thin and pale, afterwards thick, truly yellow and stinking. It ariseth from cholera, either generated in it, or sent from the bladder of gal laboring of obstruction, or from some other part. It is cured, 1. By revulsion, by opening a veine in the arme, by scarifying, or friction, if the humors flow from some other part. 2. By attraction, by *Succories* cheisly, if the humors be already flowed thicher. 3. By evacuation, either by the stool, where syrup of *Roses*, of the *Leaves of Rubarb* and *tamarinds* take place, or by urine, where *wobey*, *grass roots*, *barley* take place. 4. By strengthening of the liver that it collect no more.

II. Another is cold, and that either is simple and without matter, which is known by this, that there is a greater desire of meat, no thirst, a voiding of flegmatick, crude, and oftentimes of liquid matter, there is generated a watry and crude blood. 'Tis hardly cured because 'tis more repugnant to the nature and office of the liver; and 'tis cured by things that alter, amongst which the cheise are. The roots of *burnet*, the true *acorus*. The leaves of *Wormwood*, *Agrimony*, *Centaury* the less, *Betony*, *Maidenbair*, *Raisons*, *Cloves*, *Nutmeg*, *Cinnamon*, *Agallochus* of compounds, *Mynsichtus* his tincture of *Cassia lignea*, *treacle*, *mithridate*, *Mynsichtus* his aromatical rowles. *Cratoes* confection of *Rhubarb*. The pouders of *Diamargaritum calidum*. Or with matter, which is known from the foregoing of the like causes, the white color of the face and whol body, a soft habit of body, flegmatick stools, a heaviness in the right hypochondry. The rise and cure do follow other distempers. The essence of *Mars* is good, the preparation of which see in *Hartman*.

III. Another is moist, which is known by the soft pulse, watry blood, liquid excrement, thick urine. The cure is performed by dryers.

IV. Another is dry, which possesses in a contrary manner, neither is there any things singular concerning its cure; for the most part it troubles in composition.

Article, 2. Of the obstruction of the Liver.

The obstruction of the Liver, is a narrowness of the vessels in the liver, caused by a matter filling up their cavities, and hindring the distribution of the nourishment.

The signs are heavy and obtuse pain in the right part of the hypochondries, which after the taking of meat is increased, especially if soon after meat, some violent exercise be undertaken. The excrement varying from their natural manner, oftentimes more liquid and copious, because the chyle is not received. A change of the color especially in the face, by reason that the sanguification and distribution are hurt, &c. But it is frequent that a veine from the porta dispersed through the substance of the liver in most fine branches is obliterated; and it hath others no less smal from the *Vena Cava*, through al which the nourishment ought to be produced and carried.

The Cause, is the matter filling up the cavities of the vessels, or also the very substance of the liver, whether it be generated there, its action being hurt, either by a distemper, or by some external error: or whether it flow from elsewhere, either by reason of its attraction, or reception.

The Cure is difficult, both by reason of the narrowness of the veins in the liver, and because more diseases do follow upon this. It is performed by things that open obstructions, amongst which are commended, *Riverius* his extract of pills of *amoniacum*, made of *gum amoniacum*, dissolved in *Vineger of squills*, three drams; the species of *biera picra* one dram and half; *crude aloes* four scruples; *Myrrh* one scruple; *Saffron* six grains; With Syrup of *Wormwood*, *Quercetans Pilule tartarea*, reformed by *Sennertus*. *Tinctura Martis* whose description is in *Petrens*, from one ounce to two three and more; *Deodates* pouders compounded of the species of *diarrhodon*, *Diatragacanth*, each two drams; *Agrimony*, *Madder Roots*, *Ferne poudred*, *Sorrel*, *Purflane seeds*, each one dram; *Magistral* of *pearles*, *Corralls*, *Crocus Martis* made without corrosives, *Crocus Martis*

prepared by oyl of fulfer, each foure scruples, with sugar-candy as much as is sufficient given one dram, the former tincture being drank after it. *Pils of Steele.* The decoction of the *whitest tartar* mundesied and poudered one pound, made with foure ounces of *crude steel* and two gallons of spring water, and given two ounces in opening broth. *Penotus his opening spirit* &c. In the *cure* these things come worth obseruation. 1. That universals must be premised before particulars and topicks. 2. That medicines ought not to be given to drink but a long while after meat, least they carry with them crude humors to the liver. 3. Astringents must be added to mollifiers, as spicknard, burnt Ivory, that the tone of the liver may be preserved. 4. That things attenuating, discussing and resolving ought to be moderate, least the thinner parts discussed, the thicker doth remaine. 5. That we use sweet things, not as meats but as sauces. 6. The medicines must be given liquid, or finely poudered. 7. Topicks must never be applied actually cold. 8. After the use of steel-medecines the body must be stirred; unless black excrements do follow we must abstaine from them.

The Differences of this obstruction are various.

I. One is lately, which is the easier cleared. Another *inveterate*, which causeth putrefaction and a Feaver, and produceth a jaundice, schirus, and dropsie.

II. One is in the *bollow part* of the liver, which is *known* from hence, that nothing is perceived outwardly by reason that the part lurketh deep, the stomach is drawn into consent, from whence is loathing of meat, nauseousness, vomiting, thirst, liquid excrements. *It must be cured* by things that empty by the stool.

Another in the *gibbous part*, which is *known* from hence, that the belly prest on that place doth resist the midriff, especially because the liver is joyned to it; the excrements of the belly appeare bloody by reason of the light change of the chyle into blood. The *Cure* is the easier, by reason of the penetration of medicines, and the emptying of the obstructing matter by a larger passage, we must act chiefly by things that move urine.

III. One is from *Blood* either *pure*, which is remedied only by the opening of the basilica in the right arme; or *choleric* hot and which is joyned with paine, being a long time preternaturally imprisoned in the liver, and not timely purged it grows wonderfully thick. Or

flegmatick, viscous, and thick, which ariseth from gross meats, viscous, too much by baths, or motion, forced or carried into the smal veins: sometimes it falls from the brain into the stomach, by and by passing through, by degrees it penetrates with the nourishment into the smal veins of the Liver.

Another from *Winde* that is grosse, imprisoned under its coate, or sticking in the veins, which is *known* from hence, that the paine is greater, but not continual, there is such a great tumor of the right hypochondry, that it fills up the whole hypochondry, so that the ends of the ribs cannot be perceived: yet tis without heaviness, and being prest it yeelds, it makes no murmuring, and gives no suspicion of an impostumation lurking there. *It ariseth* either from *windy meats*, from which they must beware; or from the *weakness* of the liver not able to overcome the matter; & then the matter prepared must be emptied; or tis sent from the *neighboring parts* and the whole body, especially in *flegmatick Feavers*. The *Cure* in general requires carminatives, of which in the dropsie.

Article. III. Of an inflammation of the Liver.

An inflammation of the liver, is a hot tumor of the same arising from blood imparted and putrefying in the substance of the Liver, afflicting with a continual feaver, a heavy paine, and sense of a weight in the right hypochondry.

The *SIGNS* are a sense of *heaviness* in the right hypochondry, from the membranes, with which the liver is joyned in some to the bastard ribs. A *tumor* in the same, which appeares greater the sick lying on his left side, less the body being bowed to the right, and the liver sliding under the bastard ribs: A *paine* reaching from the throat to the bastard ribs, by reason of the heape of matter restrained, which puls the membrane that lines the Breast. A *Feaver* whose vehemency follows the greatness of the inflammation, and at night is exasperated the inflammation growing hot. A *dry cough* by intervals by reason of the vapors raised up to the lungs, and afflicting the midriff by compression. A *Difficulty of breathing* because the feaver brings a greater necessity of cooling, uneasy lying, both on the right side, because the liver is prest by the stomach and guts, and on the left, because the liver hanging the membranes are retch. A *swift and unequal pulse*, by reason of the necessity

cessity of cooling increased by the hot distemper, &c. It is distinguished from an inflammation of the muscles of the belly, and pleura, by the signs mentioned there.

The CAUSE is blood impacted and putrefied, which either is attracted, or transmitted, or flows thither; either by default of its quality, viz. its thinness, heat, and acrimony; or by reason of its quantity and abundance; or by the impulse of external causes, as while hot medicines are applied to the stomach.

The CURE is difficult because a principal part is affected, and by occasion of it, there is imminent the feare of a dropsie or consumption. Of little or no hope, if the hiccups follow, because it is a signe that the liver is come to the highest inflammation, and so by communion of the nerves the mouth of the stomach is drawn into consent. If a looseness follow, because this voiding of crude matter proceeds from the weakness of the faculty. If a burning and continual feaver accompany it, because it signifies that bowell is exceedingly inflamed. If it come to *Supuration*, which is known by this, because that happens after the twentieth day if nature be not weak; paines and feavers with other symptomes grow strong, yet most by night: shakings assail in no order, and with no reason, which are attended with an exacerbation of heat: because from the impostumation there ariseth a sordid ulcer, because tis perpetually washt with the nourishment, and filch of humors; and whereas the solid substance of the liver as being spermatical cannot be repaired, tis incurable if it tend to *induration*, which is known by this, because after forty dayes the feaver and paine doe falsely vanish, without any sensible evacuation, the tumor and hardness remains in its place with dejection of appetite, and a dayly wasting of the body. Of some hopes, if there be ground it wil resolve, which happens from the first moment of its invasion, to about the fourteenth day, and is known by the abating of the symptomes, and colour of the urine. It is performed by the same means with which other inflammations are cured. Yet Observe. 1. That the basilica or median of the right arm, be presently opened the first or second day. 2. That the repellens ought to be gentle, least that the passages of the liver being too much straitned an obstruction be caused, or a schitrous be produced by things too much cooling, or the quit or breathing from the inflammation be cast back into the Liver. 3. That the same ought to be

gently astringent, corrected with those things which are moderately opening and absterfive.

4. That things actually cold must not be applied, unless there be an erisipelas, and eminent heat. 5. The impostumation breaking to the kidnies, Goats whey must be drank with the immulsion of the foure seeds. 6. The substance of the liver being cleft and eaten into, if the matter fall into the cavity of the belly, we must proceed to burning and incision of the belly; concerning which see authors. For diffusion 'tis thought wil serve wel, a Cerote made of oyle of Mercury one dram; dulcedinis Saturni two drams and half; oyl of Galbanum half an ounce; red wax of cinnaber as much as is sufficient, and mix with mistletoe of juniper, with the juice of Colts-foote or Galbanum, and laid on.

The Differences of this inflammation are some.

I. One is Great, in which all things are more vehement. Another Smal and obscure, in which the liver is beset with smal swellings and impostumations like to felons, with no tumor or paine of the hypochondry, there is a feaver but not much burning, with thirst and loathing. It is dissolved by a flux of blood of the same side issuing from the right nostril, on the first seven dayes, sometimes on the ninth, eleventh, very seldome on the fifteenth, especially if the patient be under five and twenty years of age.

II. Another is in the gibbous part in difficulty of breathing, which Paulus called suspirium irruptum, a cough and heavy paine pressing the throate are more troublesome, lying on the right side is more difficult, as by which the part affected is prest; the paine by touching and pressing growes sharper. The urine is slow, which if it be also with content like vetches it signifies a colligation. The Tumor is readily perceived. Sometimes tis prominent and conspicuous to the Eyes. 'Tis dissolved by bleeding at the Nose if it be of the same side, with good sweats, and plenty of Urine. Things that move Urin, are far more profitable than purging Medicines.

Another is in the Hollow Part, in which nauousness, Thirst, loathing of meate, the Hiccups, Cholerick vomitings or stools are more urgent, lying down on the left side is greivous and painful. The Tumor is not readily obvious to the touch. 'Tis dissolved by stools Cholerick, bloody, by sweats and vomiting. Gentle Clysters may be administered,

we must beware of *Purgers* given by the Mouth.

III. Another is from *pure Blood*, which is called *Exquisite*, and in which all things are more mild. Another from *mixt*, which is *Spurious*, and that either *Cholerick*, and then there is a burning *Fever*, fear of a *Consumption* perplexes, vomiting of sincere *Choler* affects them, and sometimes voiding it by stool, which either inflicts a *Diarthy* or a *Dysentery*. Or *Flegmatick*, which is seldom, and in which we must add to *Topick Medicines*, *Mastick*, *Spikenard*, *Wormwood*, and the *Oyls* made of them, &c.

Article, IV. Of a *Schirrus* of the *Liver*.

A Schirrus of the Liver, is a hard Tumor of the same without pain, generated of a thick Humor, impacted in the substance of the Bowel, and hardened.

The *SIGNS* are a *Tumor* of the *left Hypochondry*, which is discover'd by the touch, if the *Belly* be slender and void of *Fat*, and is easier observ'd the *Patient* standing upright, or bowing to the *right side*, than lying on his back; but tis bounded by the *Scituation* and *Figure* of the *Liver*, and lying on the *left side*, with its bulk it lies on the *Stomach* and *midriff*. An obscure pain, because the neighbouring parts endew'd with sense are compress'd by the *Tumor* of the *Liver*, &c.

The *CAUSE* is explained in the definition, but it doth not suddenly Cause a *Tumor* but by little and little, for first it stuffs up the *small Veins* of the *Liver*, then being increased it redounds to the whole substance of the *bowel*, afterwards being much more fully heaped up, it distends the *Liver* into a vast bulk, that it appears swelled, least of all being dried, and the thin part dissipated by force of the heat, all the rest grows hard.

The *CURE* which is of little Hopes, is order'd. 1. By *Lenitive* preparatives and emptyers, as was said in obstruction. 2. By things *Emollient* and *discussive*, with moderate *astringents*, lest from those alone there may arise *putrefaction* and a *Cancer*, from these alone the danger of a greater induration. There are commended, *Labdanum* with *Indian Balsome* and *Wax*, the *Plaster* of *Hemlock* and *mandrakes* with *Ammoniacum*. *Fabricius Hildanus* his *Oyntment* of *Hemlock*, &c. 3. By things that open obstructions, among which excels *Tartar Vitriolate* with *Raisons*, *Cinnamon*, and the *Leaves* of

Agrimony. *Barcoletus* his *Tartar Tartariz'd*, which moves by *Urin*, &c.

As Concerning the *Differences*.

I. One is *Beginning* joynd with pain, which is called *Spurious*, and it yeelds to cure. Another *Confirmed*, *Exquisite* without pain, which cauteh a *Droplie*, and cannot be *Cured*.

II. One is from a *Cholerick matter*, which is known by this, that *Causes* heaping up a *Cholerick juyce* went before, the signs of *Choler* abounding and a hot liver are present. It follows a *Jaundice*, and hath a slow *Fever* its Companion, and precipitates into a *droplie* which is called *Ascites*.

Another is from a *Flegmatick matter*, in which *Causes* heaping up a thick *Juyce* went before, there are present the signs of a *Liver* cooled, a *Cachexy* and univ'ersal *Droplie* is Caused. The disease lasts long without any *discommodity*, and if it be turn'd to a *droplie*, first of all it passeth into a *Cachexy*, then into a univ'ersal *droplie*.

Another is from a *Melancholly matter*, the signs of which also will be present.

III. One is in the *Gibbous part*, where some good is done by *Topick* means. Another in the *hollow part*, in which also *internal* remedies ought to be administred.

Hither belongs *A Tumor of the Liver*, without a *Schirrus*, which is known by this, that it grows in a short time, is less resisting, the *Fingers* cannot be thrust under the ends of the *Ribs*. It possesseth only the *Membrane* that compasseth the *Liver*, yet sometimes it fills up the whole *Hypochondry*. It ariseth either from a *viscous Humor*, either sprung from meats of that Nature, or made such by cold alteratives given about the time of *Evacuation*. Or from a thin *crudity* arising from meats, drink, and other things inducing cold: or from a thin *wind*. The *Cure* is perfected by things opening and emptying.

Article, V. Of the *Wounds* and *Ulcers* of the *Liver*.

The *Wounds* of the *Liver*, which in *Aged* and ill habited bodies, are very *dangerous*, but by reason of the long effusion of blood are *deadly*, are either from *external causes*, which are *Cured* by things *astringent* and *agglutinative*, (red *Roses* dried are commended) or from a *Contusion*, which hath *Joyned* with it a vomiting

a vomiting or dejections by stool or Urin with blood, it is more dangerous than a wound, and degenerates into an impostumation. In the Cure it requires. 1. The opening of a Vein in the Arme. 2. Potions Compounded of astringent things. 3. The Flux of blood being stoppt, the dissolution of congealed blood by its Medicines.

An Ulcer of the Liver is a corrosion of the same from matter or juyce.

The SIGNS are an ulcerous pain in the right Hypochondry, a Cough, a Jaundice color of the Face, a voiding of putrid, sanious and bloody things by the stool or Urin, an Atrophy, because there is neither blood made, nor the man nourisht.

The CAUSES are, whatsoever things corrode the substance of the Liver, of which shal be treated in the Differences.

The CURE must not be neglected, although it be of little Hopes, for it grows foul by a perpetual filth, because tis continually washt with the nourishment; tis ordered as in other Ulcers.

The Differences of the Ulcers of the Liver are various.

I. One is in the Superficies, which is less dangerous; another in the Substance, which is deadly, because a spermatical part cannot be Regenerated.

II. One is in the Gibbous Part, which is known by putulent Urins without the signs of an exulceration in the bladder, and Kidneys, by difficult breathing, by pain of the midriff. Another in the hollow part, which is known by the bloody and sometimes putulent stooles, by the pain of the Guts by reason of the acrimony of the matter, by the sense of pricking and heaviness about the Liver.

III. One is which follows an inflammation, which hath ended in an impostumation, and this is dangerous, especially if the matter be contained in the substance of the Liver. Another is, which ariseth from sharp and corroding Juyces, which is known from hence, that it creeps on by degrees, the strength not impaired, a Fever ariseth in the progress, observing no type, which at length ends in a Hectick. Loathing of meat afflicts them, especially of flesh, &c. It ariseth from the default of corrupt or putrefying nourishments, generous Wine heats

the bowel, and dries it, and heaps up a certain putrid clamminess and matter.



Chap. 4. Of the Symptomes of the Liver.

Title, I. Of the weakness of the Liver.

The Symptomes of the Liver are, Weakness, Cachexy, a Dropsie, Jaundice, and atrophy.

The weakness of the Liver, or atonia, is a hurt of the faculties of the same induced by its Causes.

The SIGNS ought to be taken from the consideration of the Excrements of the Belly, of the urin, and color of the whol body; as shal be manifest in the differences.

The Causes hurting the faculties of the liver, are diseases of distemper, whether it be hot or cold; to which is added an external error. viz. when either the chyle is not rightly elaborated in the stomach, or being well elaborated, somewhat vitious is mixt with it, &c.

The Cure, ought to be perfected with things that strengthen the liver, and are appropriate to it, as are the liver of a wolfe, a calfe, of bens, snailers, raisons &c.

As concerning the Differences.

One is by reason of the Sanguifying faculty, which either is hurt by a cold distemper, or the defect of natural heat; and then the excrements of the belly are like to the washings of meat new killed, which the cold growing more intense do cease: crudities arise, with which the feet first, and then the other parts abound, because the veins do suffer with the liver ill affected, as being their original. For the cure of this serves, Rupert Cranerbil bruised, a lie of the pruning of vines with wine, &c. Or from a hot distemper, in which the chyle is burnt as it were, the excrements are like to the dreggs of blood &c.

Another is by reason of the attractive faculty;

ty, and then moist things flow down by the stool like creame, although there be no fault in the stomach, no obstruction of the mesentery.

Another is by reason of the *retentive faculty*, and then is rendered by stoole things like to the washing of flesh new killed, yet seldome moist and mattery. &c.

Article, 2. *Of a Cachexy.*

A Cachexy is a diffusion of the whol body into a watry and swelled softness by default of nourishment.

The Subject is the whole body, but those parts especially which are obvious to the eyes, as the skin and the muscles.

The signs are a color, by reason of the flegmatickness of the blood, sometimes white, by reason of the mixture of cholor or melancholly, sometimes livid or leaden. A tumor with heaviness and sluggishness, especially in the feet and hands, by reason of the descent of ferous humors, and their distance from the heart: and also about the eyes in the face, cheeks, eyebrows, because those parts by their laxness do easily receive ferous humors.

The Cause is the fault of nutrition. For though that which is put to the parts, doth concreate and adhere, yet by reason of the too great plenty of crudities 'tis not assimilated. To wit, *the blood is flegmatick, crude and ferous*; and that is generated such, either by reason of *impure nourishments*, corrupt, and producing abundance of ferum. Or by reason of the *bowels*, which either are *impure*, either from a Scrixhus as hath been said, or from the effusion of a corrupt humor, as hath been observed in a suppression of the courses, that purulent matter from the obstruction of the ureters, returning into the veins, the blood being infected, hath infected the whol habit of the body. Or from their corrupt substance; for so vicious and corrupt blood is brought forth, and carried out to every part, and there concreting. It leaves a vitiated substance instead of a good; hence the Cachexy is various according to the nature of the blood; The flegmatick affects virgins, and threatens a universal dropfy. Or they are *weak*, because they have been hurt either by the continuance of diseases, or by too much evacuations, or by long imprisonment, &c.

In the Cure we must diligently observe, 1. That regard be had to those diseases from which the cachexy proceeds, 2. If humors abound they must be emptied especially with things that purge water, 3. To open obstructions is

commended the *cachectick powder* of steele prepared one part, Cassia lignea three parts, of the whitest sugar four, the powder of young geese turds. 4. Sweats are happily moved with *antimony diaphoretick*, 5. The Cachexy of virgins is driven away by the distilled *water of Walnuts* fresh cut into thin slices, steeped in white wine twenty four hours, sweetened with Canary sack, and exposed some few daysto the sun; and taken three ounces weight, using exercise after it.

Article. 3. *Of the dropfy in general.*

The dropfy is considered either in *General*, or in *special*.

The dropfy considered in general, is a tumor of the body, or of part of it, preternatural, arising from a watrish and ferous humor, or a collection of wind.

The Signs of it are, a swelling and puffing up of the body, a heaviness, difficulty of breathing, an extensive pain in the right or left hypochondry, a filthy color of the face betwixt green and whitish, or declining to a yellowish or lead color; little urine and deep dyed, continuall thirst, partly from the defect of natural and alimantal moisture, partly from the ascent of hot salt vapors drying up the mouth of the stomach, partly by reason of the little aire drawn in, whence the heart and lungs also boyl with thirst. *But concerning the tumor of the feet*, we must note, 1. That they chiefly swel after exercise of the body and in the evening, because the waterish humor by its own weight tends downwards. 2. In the night concoction being finisht the swelling bates, by reason of the increase of the heat, the heat of the bed helping somewhat too. 3. They do often swel in those that are recovering either from acute diseases, or of long continuance, because the languishing heat cannot concoct so much, as the patient receives, and the crude and ferous part which ariseth from thence, flies to the feet without any eminent danger, if it be timely taken care of.

The Cause, is the fault of nutrition, proceeding from a cold distemper of the liver, which is induced either by the extention of heat either immediately by the six non natural things or mediately, by diseases of the whol, or of other parts. Or by the *dissolution* or dissipation of it either from too much heat, or from other causes.

The cure is not difficult, if the dropfy be of late. *Difficill* if after another disease it seize upon a body

a body weakned. If it be inveterate. We must observe in it. 1. That we begin with gentle things. 2. Because the disease is chronical, remedies must be used the longer time. 3. Least nature be accustomed to them, they must be varied. 4. Sometimes for a while we must forbear, least nature be oppress'd. See the manner in the species.

Article, 4. *Of an Ascites.*

The dropie considered in *Specy* is either an *Ascites*, or *Tympany*, or *Anasarca*.

An *Ascites* is a distension of the belly from a watry, serous, and Salt Humor, poured forth into its Capacity, by default of the Liver, Spleen and Kidneys, with a Tumor of the Feet, Thighs, and sometimes of the Cod.

The SIGNS are a swelling of the Belly, which begins from the lower parts as being most distant from the heart the fountaine of hear, a slenderness of the upper parts, the belly being struck a hoarse sound as from a bladder half full: the sick turning from side to side a noise like the Murmuring or waving of Water. The Disease growing strong there follows a difficulty of breathing by reason of the abundance of water lying on the midriffe. A Cough sometimes either from the compression of the midriffe, or from the peiting of the Water into the breast, from whence suffocation in a short time ensues, the impression of the Fingers Leaves behind it a manifest mark in the flesh.

The CAUSE is a watry and serous Humor, whence Dropie people pisse little; they that pisse much after great draughts, are not taken with a Dropie. And some by abstinence from drink have been restored to health. That humor is collected if you consider the place between the stomach and kidnyes, through which otherwise naturally the serum is wont to be emptyed: especially in the spleen veine, the mesaraick, and perhaps in the branches of the spleen artery, and the roots of those veins about the hollow parts of the bowe, gastrical and epiploical. Whence after quartanes and long continued feavers whose cause is in the mesaraick veins, a dropie follows. If the cause, 'tis collected from too much drink and moist meats, by the accession of the fault of the bowells which either attract, or contain the serum, by which it comes to pass, that it stays in the belly, and afterwards is poured forth into its cavity. But it is poured forth into the capacity of the belly, or that space which is be-

tween the peritoneum, the caule and the guts, chiefly by the epiploick and gastro epiploick branches: yet so as neither the *caul*, which hath veins only from the vena porta, and can easily receive the burthen of the mesentary and spleen; nor the *pancreas*, which in its middle hath a splenicke veine passing to the spleen with the left branch of the celiacal artery, are free from fault. The humor poured forth, although it be cold, yet because it contains many salt parts, and borrows heat from the neighboring parts, 'tis hot also, but by continuance of time it putrefies, from whence is raised a corruption of the bowels, a Fever, thirst, whiles the vapors strike the mouth of the stomach.

The Cure is of better hopes if the patient be young and strong. If a slave who is able to endure hunger, thirst, and other troubles, if more moisture be voided by urine, than is taken; if the water which is in the veins flow to the belly or stool, the bowels unhurt. Of none almost if it come from an acute disease, because the bowels, the radical moisture being waisted do contract a cold and hectick distemper which cannot be corrected. If the water break forth into the caul, and that be corrupted. If it happen to the splenetick after a longe dysentery, because by the passing of the evil humor, the symmetry of the innate heat is perisht in the guts and bowels. If a cough come upon it because it shews that the watery moisture is so much increased, that it penetrates into the breast, and doth already possess the rough arteries. If impostumations or spots break forth in the thighs, if being eased by remedies 'tis wholly renewed again, because it signifies the bowels are corrupt, and possess either with a schirrus, or consumption and hectick distemper. If it arise from a colliquation, because all the strength is dissolved, and the body languisheth. 'Tis perfected, 1. By the emptying of the water poured into the belly, premising a preparation of thick humors, if they intervene. But it is emptyed, 1. By the Stool, by medicines that purge water; the gentler, as *mechoacan*, *Fallop*, which may be given to one scruple and an half; the Juice of *Flowerdeluce* clarified, which may be given to three drams with syrup of endive six drams; Parsly water half an ounce; and the powder of diarrhodon Abbaeis one scruple; With peach flowers dried and boyled in wine. The stronger, as *gambugia* which is given from six grains to fifteen (see *Reudenius* concerning it.) *Rulandus* his extract of *esula*, *trochiskes* of *Alhandal*, or the same authors *Spiritus vite aureus*. The extract of *elaterium*

um most commended by *Massaria*, from one grain to three grains. The magistral, or *Crytital Luna of Tentzelius*, given chiefly at the Wain of the Moon from four grains to five. *Mercurius vitæ* fixt by longe digestion, *Crocus Metallorum Absinthiacus* of *Mynsichus*, the same authors *Tartarus Emeticus*, &c. All which must be given on even dayes, not too often nor the bowels too much corrupted, after the use of them we must see whether they bear it well, and the bowels must alwaies be strengthened. Concerning a Paracethesis or tapping, see *Anthors*. 2. By diureticks, which ought to follow purgers of water, amongst which beare the palme, the powder of earth worms given one dram weightwth the decoction of a paragus or fennel. The salt of ash salinated as *Billichius* delivers. Wine twice or thrice strained through the ashes of bean straw burnt, six handfulls, the tops of broome, Juniper, each two handfulls, and a halfe, woodbine one handfull and a half, and given six ounces weight. 3. By sweeters and dryers, as are the Root of swallow wort steeped and boyled in Wine. *Antimony Diaphoretick*, the decoction of *Sassafras wood*. Treacle in wine the quantity of a smal Walnut with a few drops of Oyl of Sulphur, *Lapis Serpensis*, concerning which see *Joel*. Outwardly, *Mynsichus* his Plaster de *Cimeribus*. 2. By strengthening of the parts, that the Water be not collected again; here are good, the Trochiskes of *Wormwood*, *Paracelsus* his *Diacubeba*, &c. 3. by diet, which see in *Anthors*.

The Differences are taken from the parts, by whose default the serum is collected.

One is by default of the *Kidneys* that do not attract the serum, either because they are *Exulcerated*, and then some matter appears in the urin, the piss is much less than in other Causes: or because the *Ureters* are broken, and then it ariseth suddainly. That comes to pass for the most part in expelling the stone.

Another is by default of the *Spleen*, which when as it is as it were spungy, it ought to draw the water from the stomach by the *vas breve*, that office being delegated to it by Nature; which may be carried from hence by the *Splenick Artery* into the *Celiacal*, by and by from the trunk of the *Aorta* by the emulgent Arteries to the veins: It doth that either too greedily by reason of an inflammation risen in the Veins, which is known by a pertinacious flux of the belly, which doth neither take away

the swelling of the belly, nor the pain by reason of a *Hectical distemper*, and either from the weakness of the veins not attracting the nourishment, or from the corruption of the same and continual voiding of *Cholerick Excrements*, it afflicts with a heat in the *jejunum gut* and *mesentery*. Or it neglects it altogether, either by reason of the obstruction of the passages tending to it, caused by thick humors. Or by reason of the dissipation of heat, from a *schirrous*, too much emptying, the use of hot things, the distemper of the neighbouring parts, acute Diseases. Or by reason of the suffocation of heat by the too much use of cold things, from the suppression of the Couries, from superfluous Evacuations, &c.

Another is by default of the *Liver*, either for the same causes not attracting the serum, or retaining it: or by reason of the same inflammation too much attracting; and then there is a desire of coughing; the Excrements are few and dry, by reason the serous Humor is sent into the belly, and the rest is burnt up by the heat of the Liver.

Article, V. Of a Tympany, and Anasarca.

A Tympany is a distension of the belly from much wind, raised up either by a weak, or burning heat, contained within its Capacity.

It is called also a dry dropie, although for the most part 'tis joyned with Water.

The SIGNS are these, the Skin appears retcht like the skin of a drum, and struck upon gives the sound of a Drum, the Navel hangs forth much. The puffing up of the belly is greater, but the heaviness less. Compressing of it doth not leave behinde it so conspicuous a mark, but the hollow print is presently filled up, belching and Farts often break out, noise and rumblings Obmurmurate. It must be distinguished from the distension of the breast after wounds, which doth possess the breast, back, Loins, Cod, Arms, Neck, nay sometimes the whol habit. It proceeds from hence, that the Air which ought to pass streit through the mouth to the Lungs, and from the Lungs again to be breathed forth through the mouth, a way being open between two Muscles, or the Muscles and the skin, 'tis blown from the wound as from a pair of bellows into the space between the skin & muscles: and hence furthermore it penetrates into the neighbouring parts.

The CAUSE is wind, which if you consider

sider, its rise springeth either from a weak heat, or from too much and torrefying, which resolves into Vapors that which is subtil being violently stirred, as is seen in black choler lying under the stomach. If the place, 'tis neither in the stomach, because it would be cast forth by belching, nor in the Guts, because it would be voided by stool, but for the most part 'tis generated between the coats of the mesentery and Guts. For in the dry Dropsie, the torments afflict about the Navel, greives and pains of the Loyns: but the mesentery forward is united to the smal Guts, backward to the vertebres of the Loyns from which it springs, from whence is this distention; yet it is found also in the Cavity of the Guts, and it insinuates it self thither through the Orifices of the Mesaraick Veins.

The CURE requires. 1. *The bringing forth of the matter* producing the Wind, where takes place, *Ferdinandus* his *Antipneumatical wine*, concerning which in the History, 38. The Coagulated Spirit of Salt, with Wormwood water, and Spirit of Elder. 2. *The Discussion of the wind*, outwardly by a great Cupping-Glass applied to the Belly; by frictions with *Garlick* bruised and boyled in generous wine; by a fomentation of a *Boyer Urin*, and *Lapis Prunelle*, concerning which see *Hartman*. Inwardly by the Decoction of *Ebony wood*, the Spirit of *Guaicum*, the Arcanum of *Cummin* and *Carravain*, the liquor of the flowers of *Mullein*, &c. 3. *The correcting of the hot distemper of the Bowels* if there be any; the strengthening, if it be weak.

II. *An Anasarca or Hyposarkidion, and Leucoplegmaty, is an equal increase of the bulk of the Body preternaturally throughout the whol body, arising from default of the nourishment.*

The SIGNS are an increase of the Corporal bulk, greater than in a Cachexy, equal through the whol body, so that the feet and Leggs swell in the begining, a softness of the body, a Laxness, Paleness, and weakness upon the least labor, a continual Fever, slow, with a puls final, oft, and unequal, the Urine white, thin crude, &c.

The CAUSE is the fault of the nourishment, which by reason of the immoderate coldness of the Liver and Veins (of which we spake in distempers) is Flegmatick and crude; nay the body is spread over with a clammy and congealed water, and though the nourishment doth both concrete, and adhere to the

part that is to be nourshed, yet 'tis not assimilated.

The CURE is *Easier* than in others, because a Flegmatick Humor, comes neerer to the Nature of blood, than a serous; besides a strong diarrhy comming at the beginning while the strength is firme, the Disease is Cured. 'Tis Performed. 1. *By emptying the watry matter*, dispersed throughout the body, both by things that Evacuate by the lower Parts, amongst which is commended the extract or Salt of *Hedg Hyssop* mixt with *Rhubarb*. And by vomiters, which see elle where: and by bleeding, if it arise from a Plethorick Cause or retaining the blood, least by the plenty of the cold Humor the heat be overwhelmed, which must be done at the beginning. And by sweaters, as the Decoction of *swallow wort* used, especially in a *Laconick Bath*, before you enter into it, some of *Weckerus his water* is wel administrated, (concerning which see *Hartman*) 2. *By strengthening of the Bowels*, the Liver especially and stomach, of which in their places. *Ferdinandus* commends the covering of the Patient in a heap of *Wheat* for to dry up the matter.

Article, VI. Of the Jaundice.

The Jaundice is either *Yellow*, or *Black*, of which shall be spoken in the Symptomes of the Spleen.

The *Yellow Jaundice is an effusion of a Yellow or greenish Humor into the habit of the Body proceeding from its Causes.*

'Tis called also from the Name of a smal bird *Galgulus*, from the variety of colors in the *Rain-bow*, *Arquatus*, and because 'tis tenderly handled at Court, *Regius*, or because 'tis beleev'd to be Cured with *Honey* and wine a Princely drink.

The SIGNS of it are, a yellowness of the whol body, a Citron or pale green, which is observed in the white of the Eye, and at its inner Angle, where the great Veins are. A distension of the Veins under the Tongue; a pain of the right Hypochondry, or a hardness too. Bitterness of the Spitte, with Cholerick Vomiting, the Hickops, and pain in the Head.

The CAUSE is a Humor of the same color, which is poured forth into the habit of the Body, for the Causes to be mentioned in the Differences.

The CURE varies according of the Nature

of the Differences. Yet it respects two things. 1. *The Cause*, which must be removed. 2. *The Symptoms*, which must be taken away, after universals have been premised. For the Face and Eyes is commended, the fume from *bot Vineger* in which *Rosemary* hath been boyled. *The Specificks* are, the extract of *Columbine*, and *Celandine*, which with a little *Bezoar* is given to the rich. An *Emulsion* of *Columbine Seeds* with the distilled Water of the same, for the poorer sort, the powder of *Earth worms*, three or four live *Lice* in a poched *Eg*, if we beleeve *Zacutus*, which is a most fordid medicine. *A live Moth* laid on the Navel til it die. *A live Spider*, in a Nut shell hung about the Neck, placed to the pit of the heart, til it die. Amongst *Magick things* are reckoned the Patients beissing of *Nettles*, Cloths dipped in his Urin and exposed to the Air, and many other things; concerning which see *Petræus*.

The Differences are taken from the Causes.

One is from those things that generate plenty of *cholera*, which are either *External*, as sweet things, hot meats and drinks. *Poysons* especially, as the *Gal* of a *Leopard*, the biting of *Vipers* and venenate things; and then we must act with things *Alexipharmacal*, peculiarly opposite to the Nature of the *Poyson*, in which also we must have regard to the manifest qualities. Or *Internal*, as are. 1. *A hot and dry distemper of the Liver*, and then the Urine is vehemently colored and thick, the Excrements of the Belly are dyed of a *Saffron* color, the Feet and hands are hot. 2. *An Inflammation and Impostumation* of the same; of which formerly.

Another is from those things which do hinder the purifying of the blood and the separation and Exclusion of *Cholera*, as are, 1. *The compression* of the bladder of *Gal* by a *Schirrus* of the *Liver*, or some other *Tumor*, which see above. 2. *The Obstruction* of the same from thick *flegm*, plenty of *Cholera*, stones and other Causes, which is either in the passage reaching to the *Liver* by which it is attracted, and then the Excrements are dyed, or in that tending to the *Duodenum*, by which 'tis cast forth, and then the Excrements are white; or it comes to pass by default of the *Liver*, and then the right *Hypochondry* is distended; if it become hard it foretels a *Drop sic*, or by default of the bladder it self, and then it invades suddenly, the belly is slow to stool, the Excre-

ments because they are not dyed, look white. It is cured, 1. *With things that open obstructions*, amongst which prevails, *Dodder of Vetches*, the *Decoction* of the *Strawberry Plant* with *horehound* and *Raysons*, the *Juyce* of *Nettle Roots* bruised in wine with *Saffron*, *Young Geese Dung* gathered in the Spring, dryed and given one dram weight. *Cremor Tartar* diluted with steeled Wine, spirit of *Tartar*, &c. 2. *With Purgers* given by course with openers; amongst which *Rhubarb* and *Hiera Picra* are the best.

Another is from those things which do suddenly expel cholera from the inward parts to the Circumference of the Body, which chiefly comes to pass in acute Feavers, in which either it is cast forth critically, and then there went before Signs of coction, and the Disease is Cured. Or Symptomatically, by reason of its plenty and Acrimony, and then it happens before the seventh day. If it be without a coldness, 'tis thought to be either from a weakness of Nature, or from an Inflammation: if with a coldness the Feaverish matter is cast forth from the Bowels and veins to the Skin. In the Cure we must have respect both to the Feaver, and the Liver.

Article, VII. Of an Atrophy.

An Atrophy is a drying and wasting of the whole body arising from the disappointment of its nourishment.

The Subject is the whole body, especially in relation to the soft Parts, the Fat and Flesh; the harder Parts indeed may be dried; but they cannot be so diminished, that from thence the whole body should decrease.

There is no need of SIGNS, whenas the affect is apparent to the Eye.

The CAUSE is the disappointing of nourishment, which proceeds either by default of the nourishment, when that either failes, that it is not taken, not attracted, not put to, is discussed, &c. Or is Vicious. Or by default of the nourishing Faculty, when the Native heat, or radical moisture failes.

The CURE respects. 1. The Symptom it self, where take place, a Bath of the Decoction of the Head and Feet of a Weather, of red fallow. Of sweet water in which have boyled the ashes of *Hazel*, *Flax Seed*, the bones of a Weather bruised. A moistning Diet,

ved in Vineger of Squils may rightly be applyed, Premising some convenient Fomentation. See *Solenanders strenghtning electuary* in *Hartman*.

II. *The Inflation of the Spleen is a puffing up of the same into a Tumor by winde.*

The SIGNS are these, a Tumor and distension is perceived with some pain, but without the sense of heaviness and a weight. A murmuring and sound is made. The Spleen being prest doth yeild.

The Causes are either too large drinking of cold water, or windy meats, as pease, chafnuts, beans, scallions. Or thick and viscous humors, which may be overcome by the weak heat and are resolved into vapors, which doe easily puff up the spleen, because it is spongy.

The Cure is as in others. The Chymists applaud the burning Spirit of saturn in the extract of ferne, and anoint the region of the spleen with the same thrice a day, purging in an external cause is disallowed, anointing with oyl of rue, cappers, &c. is sufficient.

Article. II. *Of an inflammation of the spleen, and schirrus.*

An inflammation of the spleen, is the lifting up of the same into a tumor, by blood poured forth into its substance.

Sometimes the whole spleen is affected, sometimes not.

The Signs are a tumor in the left hypochondry, bunching out as it were towards the fore parts, and as it were girting a man in the middle, so it is distinguished from the paine and inflammation of the left kidney which is higher than the right: there is a pulsation and palpitation of that side, by reason of the arteries with which it abounds, a continual feaver, observing the periods of a quartan, difficulty of breathing by reason of the compression of the midriffe.

The Cause is blood poured forth and putrefying, which is either pure or mixt, and discovers its self by its signs.

The Cure ought to follow the method of other inflamations, so that larger drinking after purging be avoided, least the humor be carried to the substance of the liver.

II. *A schirrus of the spleen is a hard tumor of the same proceeding from a thick, glutinous, and a hardened humor.*

The SIGNS are a resisting tumor with

an ablong hardness in the left side, and that without paine; to which are added a difficulty of breathing, a drincels of the mouth, a swelling of the feet, uneasy lying on the left side, troublesome sweats, &c.

The CAUSE is a thick and glutinous humor, which either presently was such, arising from meats of a thick juice, from labors, watchings which do waste that which is spirituous in the humors. Or afterwards, when being thin of it selfe, tis hardened either by the force of heat, or by medicines too much distilling, or by its tartarous nature tending to induration. This diffused into the whole body with the blood, makes it livid and colour'd; and leads to a consumption, because the spleen opprest is not able to discharge its office of sanguification.

The CURE is more difficult if the patient have a diarthy ensue, and a lientery, or water betwixt the skin follow it. It respects the same things as a schirrus of the liver. Amongst things that digest inwardly, are commended, the root of ferne, the powder of dead nettle in meats, the wood of tamariske boyled in steel water to a third part. The composition of ferne rootes one ounce; dodder of vetches two drams, boyled in eight uncnes of strong wine to the consumption of a third part. Outwardly amongst emollient things Fabricius unguent is of force, compounded of Gum ammoniacum one ounce; oyle of sweet almonds, white lillies, bens grease, each two ounces; the juice of hemlock foure ounces; vinegar of squils two ounces.

The Differences are the same as of a schirrus of the liver.

I. One is new come, which afflicts with pain extending it self to the very throat. Another inveterate, which is void of al paine, neither doth it easily kil a man, unless the liver be drawne into consent.

II. One affects the spleen only according to its substance, which also is bounded with the figure of the spleen; though this do sometimes according to its longitude appear, as round; sometimes according to its latitude, sometimes swels according to al its dimentiones. Another is poured forth into other neighbouring parts also, that for the most part it comprehends al the left region of the belly.

Article,

Article. III. *Of an Ulcer and wound of the spleen.*

Concerning an *Ulcer*, there is nothing to be observed, but that it followes inflammations and tumors, and casts forth its matter sometimes by urine, vomiting, or stool. It must be purged, cleaned, healed.

A *wound* is either in its *superficies*, which is less deadly: or in its *substance*, which by reason of the effusion of blood is deadly; where-soever it is it pours forth black blood, for the most part also it affects the stomach, causeth thirst and paine to the throat; the matter sometimes is voided by the urine, carried through the celiacal artery, to the trunk of the great artery, and hence to the emulgents. 'Tis cured also with vulnerary potions.

Chap. 2. *Of the Symptomes of the spleen.*

Article, 1. *Of the paine of the spleen, and black Jaundice.*

The Symptomes of the spleen, are, a pain of the Spleen, *The black Jaundice, the hypochondriacal affection, and the scurvy.*

I. *The pain of the Spleen* ariseth from the solution of its continuity, and distension of its membrane. This is caused both from *things external*, as blows, falls, &c. and *internal*, viz. inflammation, inflation, tumors, ulcers, &c. But it must diligently be distinguished both from those pains which are felt in the left side, especially after meat or riding which proceed either from wind, or from serous humors, which flowing into the spaces of the peritoneum that sticks close to the coates in that place, do distend them from the muscles: and from the paine of the muscles, which is felt if they be prest a little. *The Cure* requires no narcoticks, for when as it is cloathed only with a thin coate the paine is not exquisite.

II. *The black Jaundice* is a change of the skin of the whole body into black.

'Tis known by the color it self. It ariseth from the same causes, as the yellow Jaundice doth, except that there the liver, here the spleen is in fault. *But tis harder to cure*, because if it be by default of the bladder of gal, there is a greater corruption of choler, if by default of the spleen, the humor is more stubborn, and there is a fear of a droply. Medicines

of steele are commodious in it, and also a dry bath, after which the body must be clesed with an emulsion of hempseed, the face, with beane flower water mixt with wine.

Article, 2. *Of the Hypochondriacal affection.*

The Hypochondriacal affection is a filth of vitious humors collected in the branches of the *vena porta, celiacal & Mesenterical arteries*, by reason of the hurt of the spleens concoction, without putrefaction, and by sending forth of vapors, causing many Symptoms.

'Tis called *Hypochondriacal* by reason of the place of both Hypochondries, by which is understood that part of the body, which under the bastard ribbs reaches as far as the loyns on both sides, and comprehends with the muscles the bowells themselves. 'Tis called also the windy passion by *Diocles and Aëtius*, for the familiarity of winds contained in the left hypochondry, and it obtains the name of *Melancholly*, when as the brain is affected by consent. As was said before.

The Signs are fetcht from the symptoms, of the natural, vital, and animal faculties: there is. 1. A *crudity of the Stomach* by reason that it is ill nourisht by the *vena porta* from the Spleen, which is followed with a continual spitting, Flegme filling the mouth with moisture, vomiting up of the thicker parts of the humor, either generated in the stomach, or sent from the spleen, and sometimes so sour, that the teeth are on edge, there goes before it an ebullition of the same in the stomach, wind distending the neighbouring parts, that sometimes the patient falls into swooning fits: a discuffion of the thinner parts of the humor by insensible perspiration, sometimes with a Feaverish shaking, which a certaine heat Follows presently vanishing in sweat. 2. *Pains in the stomach*, which reach even to the back, returne upon taking of meat, when 'tis concocted or cast forth they cease; they draw the kidneys into consent by communion of membranes. 3. *Constiveness of body* both by reason of the dryness of the vessels in both sides, and because the meat is changed into a flegmatick & viscous humor, and so 'tis not moved forward by the gutts, and pertinaciously adhering to them, is the cause of astringency. 4. An *inflammatory heat* as it were of the Hypochondry, which by motion, meat, drink, hot things grows more fierce; which is attended sometimes with a redness of the cheeks and whole face by reason of

of vapors ascending: a diary Feaver vanishing in sweat, by reason of the dispersing of them through the whol body by large drinking. 5. *A Urine* sometimes thin by reason of the passages obstructed, and the retention of wind, from whence the fit begins; sometimes troubled and thick by the admision of humors, with a sediment sometimes of red sand, in which the tartarous parts of the blood are coagulated. 6. *A Flatulency*, and waving especially in the left hypochondry, the wind being imprisoned in the cavity under the midriffe, arising from the connexion of the stomach, caule, cholick gut, and bowels. 7. *Anxiety*, both because the meat half concocted is resolved into wind, and causeth a straitness, and because being carried to the neighbouring vessels affected with a hot distemper, it boyls as it were with that Fiery heat, and distends the hypochondries, and so causeth a straitness in those parts which have nerves from the sixth conjugation. 8. *A Palpitation of the heart*, either by consent of the stomach, or by the contention of the part it self against the malignity of the vapors, which is more frequent with some at the increale of the Moon, by reason of the greater plenty of serum than boyling in the mass of blood. 9. *A pulsation in the left Hypochondry*, which either the celiacal branch causeth especially after anger and motion, or the compression of the arteries in the mesentery by the glandules, the great one especially which is in the center. 10. *A driness of the Palate, mouth, and tongue*, by reason of the ascent of resolved vapors through the gullet and rough artery. 11. *Difficulty of breathing* both by reason of the affection of the nerves dedicated to the muscles of the breast, and of the effusion of the evil matter into the spaces of the muscles. 12. *A perturbation of the brain*, for the vapors resolved if they be acrid cause an *epilepsy*, if obscure, they darken the spirits and cause *melancholy dotage*; if many, they are authors of a *vertigo*; if dry, they cause *watchings*, which are wont to molest most men after midnight, because the chyle distributed, and carried to the second concoction, the spleen, and the neighbouring vessels, doth stir up the humors lurking in them, and raiseth up vapors from them. Which are carried towards the brain; if into the gullet, the muscles of the larynx, and rough artery, they cause a fear of *strangling* by reason of the distension of that, and the contraction of these; if into the nerves of the tongue, the armes, according to the tract of the nerves, they cause a *strepidity*, and a formicant pulse, sometimes in

one, sometimes in the other hand. And these are, the symptoms, yet they do not invade al.

The Cause is the flegmatick, choleric, and melancholy humors; yet melancholy chiefly, not only by their first and second qualities, as they are adust, viscous, fixt; but also according to their highest powers and strength, viz. hurting by their bitterness, saltness, sharpness and acidity. *They are collected*, if you respect the place, in the branches of the vena porta, the celiacal and mesenterical arteries, the greater especially, and which do wash along the left hypochondry: neither the *vas breve*, nor the arterial nor venal vessels excepted, nor the caul, which hath large veins from the vena porta. If the cause, they are gathered, 1 by reason of the concoction of the spleen hurt; and truly either by a hot distemper, by which it attracts crude juice, the watery first, afterwards the thicker; which stopping in the veins being destitute of a vehicle, is thickened and burnt, and yeelds matter for the generation of wine: or by dryness, hardness and scitrosity, its heat debating, by which the chyle not attracted subsides, and the excrements remaine not being cast off, as happens in a sedentary life; hence about the thirtieth yeare of our age the disease for the most part invades, or by an external error, when the chyle is not concocted, either by default of the meats, or of the stomach, or passions of the minde, which while the meat is concocting doe cal away the heat to other parts, mixe choler stirred up by anger with the meats, trouble the spleene in its action, which abounds with many arteries. 2. By reason of the fault of the glandules, which underprop the vessels of the mesentery, while they either compress them by a tumor, or being compressed in a sedentary life, they render them more streight.

The CURE is difficult by reason of the heape of symptoms. *The easier* if it be beginning, if it fall neither upon a full age, nor declining; if the hemroids, swelling of the veins, courses come upon it. If it affect men rather than women, the fat and faine, than the swarthe. If a bleeding of the left nostril happen. If blackish urines be piss freely without a feaver. *It respects*. 1. *Clystering*, by vertue of which blood must be let, where note, a veine of the same may be opened; if a great part of the matter is communicated to the vena cava, and any inflammation assault about the liver; that the external hemroid veins may very well be opened, because being inserted to the same right gut, their mouths doe communicate with the internal.

internal. 2. *Physick*, by vertue of which. 1. *The corrupt humor* sticking in the first region of the body *must be brought forth*. Where glysters take place, and vomits, especially if there be much in the stomach. 2. *The passages must be opened* and the humor prepared by things incisive and attenuating, where note that all things are rather to be used in a liquid forme, but if in a solid, a draught of liquor must be dranke afterwards: we must begin with the gentler, and end with the stronger. Amongst those things are, *of simples*, the roots of *scorzonera*, *male fern*, the herbs of *fumitory*, *spleenwort*, the flowers of *burrage*, *buglos*. Apples *Burstorian*. *Of compounds*, the syrup of *sweet smelling apples*, of *fumitory*, the powders of *diacurcuma*, the essence of *fumitory*, *gremander*, &c. of which formerly in the obstructions of the spleen and liver. After these, acid waters, baths, steele, must be given spring and autumn, which premising the evacuation of the first passages, may be given in conserve of burrage from two scruples to one dram and half; upon an empty stomach, first of all every third day, til the twentieth, before they are accustomed to it, afterwards, a draught of wine must be added, and walking up and down for two hours if they be able; four hours after taking of it, let them eat their dinner: if they voide nor black excrements, we must forbear; but if they be wholly supprest, we must move the belly. 3. *The humor prepared must be emptied*, by benigne purging medicines, corrected with moisteners, by little and little, given about the last quarter of the moon, interposing baths and moistening Fomentations, myrobalanes and cassia excluded. In a nidorous crudity things purging choler are best, in an acid, purgers of flegme and melancholly, taking meat two hours after that the medicine ascend nor beyond the liver. 4. *The vapors fuming up must be diverted* from the head and the heart by frictions, glysters, cupping-glasses, causticks, and other medicines, as *elixer proprietatis*, conserve of roses with spirits of sulphur and vitriol, 5. *The Parts which it offends must be strengthened*, and the symptoms taken away, of which in their places.

The Differences are taken from the parts.

I. One is *essentiall*, which we have hitherto explained.

Another by *consent* of other parts, and this.

II. One is *stomachical*, which is known by often spitting after feeding, by sower belchings and favoring somewhat rusty, by pricking of the mouth and jawes, with which those so affected desire cold drink, by vehement pains of the stomach, which in some proceed even to the back, the meate being concocted they cease, by and by upon the raking in of more they returne, &c. It is cured by emptying, by diversion, by bleeding and cupping-Glasses. If greate paine afflict, by absterives, dryers, strengtheners.

Another *hepaticall*, which is known by the pain of the right hypochondry, loathing of meats, a slow and erratick fever, the extension of the pain to the shoulders and cancell bones &c. in the Cure which see in distempers; if it be hot, whey is good with the juice of lemons, or of sweet smelling apples newly expressed.

Another from the *womb* whose vicious blood doth easily regurgitate either from the veins into the arteries by reason of their anastomosis, or out of the arteries into the hypogastrick, which gives branches to the stomach, pancreas, caule, inalguts, &c. and by and by into the coeliacal. It is known by those accidents which are wonte to befall those troubled with the mother. In the cure we must have regard to the affects of the wombe.

Another is *hemorrhoidal*, happening from the suppression of the hemrods, of which in its place. See *Matthæus Martinus* concerning the abstruser diseases of the mesentery, who handles these things very accurately.

Article. III. Of the Scurvy.

The scurvy is a cachexy arising from a melancholly humor, corrupted in a peculiar manner, afflicting with a weakness of the thighs, spots, swelling of the gums, and bleeding of them, loosness of the teeth, and other Symptomes.

The Scurvy was known to the ancients, partly under the name of *Oscedo*, partly of *Scelotyrbæ*, and *Stomacace*, partly of *Volvulus Sanguineus*, and is familiar to people inhabiting the Sea, and moarish places.

The SIGNS are put in the definition, and we shal treat of them hereafter. To these ad the Urine and pulse too much variable, that, for at the beginning tis thin and yellowish the tartarous matter subsisting in it, by and by chick and white: the humors being more corrupted tis red, and by the admission of an adust

saltness shining like a lye; and anon without any marke of putrefaction, and thirst, red sands oftentimes stick to the chamberpot. Sometimes tis thick and continues so, sometimes growes cleare, and casts to the bottome a red sediment which resembles flower of Bricks; sometimes many crude and flegmatick excrements stick above the sediment, as the suspensum: but in those whome the suppression of the hemroids hath occasioned this evil, in them it comes forth by drops with paine and heat, and contains a tartarous matter, Mucous, Salt and blackish. *This*, because the pulse sometimes is weak, unequal, and often vermicular, but fainting fits approaching, by Reason of its high necessity, and because the Heart endeavours to expel the Vapors, 'tis stronger.

The CAUSE is a *Melancholy Humor*, and that, 1. Crude, as both the Diet and the Symptomes shew, which do afflict Melancholy people. 2. *Serous* and *Ichorous*, that 'tis like a *Lie*, which consists of water and Salt, Feculent, and adust Parts, which is discovered by the wandering pains and Ulcers. 3. *The associate of Flegmatick* sometimes, and vicious Humors, for a Vein being opened, the blood in Scorbutick people is covered over with a white Glew waxing Green or Yellow. 4. *After a peculiar manner corrupted*, after it hath remained there a long time; hence many labor of an obstruction of the Spleen and Melancholy Humors, who are not affected with the scurvy; and in those Regions where the collection of a black Humor from the heat of the Air is Familiar, the Scurvy is unknown. 5. *Contagious*, which you shal not find in other Melancholy Diseases. 6. *Produced from meats destitute of volatil Salt, and therefore hindering spirituality in the Concoction from whence things Tartarous and Feculent stop in the first passages, and afterwards flow to the Spleen in such plenty, that they cannot be separated.* Certainly meats hardned with Smoak and Salt, in which there is either little of volatil Salt, or what there was is wasted by Smoaking, so that nothing but the fixe Salt and Tartarous remains, a thick Air, and maritine places do conduce to its generation. The medicines which are given bruised and tasted, send forth a sharp vapor, subtile and quickly vanishing, which proceeds from volatil Salt, the same dried or boyled work less, fresh and condite do worke more exactly. 7. *Primarily*, residing in the Mesentery, Caule, first Passages, and the middle places between the stomach,

Liver and Spleen, and bordering on both Bowels. *Secundarily*, in the Veins of the whol body. *That*, for if the Chyle be less purified by its spirituality, either by reason of the weakness of parts, or external error, it stops in them by reason of its thickness, by the arrival of more 'tis increased, and infects the same with its feculency and saltness which it hath conceived, it weakens and pollutes the neighbouring Liver, and the parts dedicated to concoction, both by contract, and sending forth of Fumes, from whence that quality is participated of by the same meats and Chyle. *This*, for that filth detained there for some time, by help of the serous Humor is carried to the Liver, from thence by the Veins and Arteries is distributed into the whol habit of the Body, the future Cause of so many Symptomes.

The CURE respects three things. 1. *The Diet*, which ought to be incisive, attenuating, absterfiv opening obstructions, where note, the eating of wild Pidgeons is commended, that this Disease in some places is Cured by the exercise of Venery, perhaps by reason of the explendency of natural heat. Things Sugard and Milks must be avoided. 2. *Chirurgery*, by Vertue of which the basilick Vein, the median, Salvatella, or of the Ankles must be opened; but so, that we forbear if the spots have already appeared: if there be no Hopes of the Hemorrhoids, and a Fever affect, let it be done. Let the Evacuation be sparingly least the strength be dejected. 3. *Physick*, by Vertue of which. 1. *The matter offending must be prepared*, the first passages being washd, so that we begin with the gentler; that we act wih things more attenuating if the Disease be now grown strong, or the men live in a thick Air; That those things be given which work by their whol propriety, and be administered rather in juyces, essences, conserves, than in Decoctions and extracts, in which the volatil Salt of medicines doth vanish. *Things appropriate* are *English Scurvy-Grass*, which is most commended, or *Brooklime*, which hath something of moisture in it, *Horse-Radish*, the lesser *Celandine*, *Pennywort*, *Mustard*, *water Trefoil*, &c. Of *Compounds* are, the *Danick* electuary made of the berries which they call multiber. *Foresius* his *Sceletyrbick* Syrup, and *Mynsichtus* his *Antiscorbutical* Syrup. The essence of *germander* and *Fumitory*. The Spirit and conserve of *Scurvy-grass*. *Mynsichtus* his *Tinctura Martis* strengthened with appropriate things, &c.

2. It must be emptied either by the lower Parts, where take place Quarcetans *Tartarous Pills*; or by sweats to ditcussle the remainder, which either in a Laconick Bath, or otherwise, are well raised by *Mynsichtus his Theriaca Saxonica*, the essence of *Fumitory* with Salt of *Wormwood*; or by *Diureticks* given with appropriate Waters. 3. The Parts, as the Liver, Stomach, &c. Must be strengthened.

The Symptoms, which afflict the scorbutical, are various, which affect for the most part by periods, are not al found in al people; some are more familiar, others less; but they are as follows.

I. *Difficulty of breathing*, and a staitness of the breast by fits, which affects without a noise, hissing and cough; sometimes it hath joynd with it, a darkoels cast over the Eyes, faintings, and the Patients despairing of health. It arisetb from Vapors or Humors Stricking in the Cavity of the Caul, and compressing the Midriff, which being stirred after vehement exercise make the Symptome more greivous. 'Tis Cured with Thoracical and Antiscorbutical means, to which add somewhat of *Eichstadius his Confection of Alchermes*, and *Saffron*.

II. *An Itching, Tumor, and Putrefaction of the Gums*, for whenas their flesh is soft and loose 'tis easily corrodod by the thinner and sharper part of the Humor ascending thither. It chiefly troubles Children, and affects with a blackness of the Teeth, Putrefaction and looseness, their holes being possest with the evil Humor, yet it suddainly vanishes, by reason of the recourse of the Humor. The Cure of it is helped by appropriate Waters, if the mouth be waitht with them. By the Decoction of astringent plants in austere Wine, adding Spirits of Vitriol and Alum, which are most effectual.

III. *Plenty of spots in the Thighs*, which for the most part trouble those of ful Age; first they are ruddy and like flea-bitings, by and by they become purple and somewhat livid, at last they decline to a black color. When there is many, Sometimes they invade the breast, the Neck, Arms, and Face: sometimes they vanish suddainly, sometimes last many yeates; sometimes they turne to scales; and by how much the more livid they are, by so much the more dangerous. They arise from the descending part of the Humor, thrust by Nature to the more ignoble Parts. They may be Cured by things ditcussive and mollifying, as Baths of

Juniper berries, cresses, Scurvy-grass, Chamemel, &c. if they be ulcerous they are hardly cured, whenas the whol thigh is gangrend by them.

IV. *A paine of the thighs*, which is distensive, dul, breaking the bones, lying deep, grows Feircer towards night, by reason of the motion of the melancholy humor about that time. It arisetb from serous humors, sometimes falling down from the head; and cleaving to the membranes, sometimes poured out of the veins from the seat of the filth by the crural branches of the vena cava, and insinuated into the muscles of the thighs. 'Tis mitigated with a cataplasme of coagulated milk, with flowers of chamemel, water cresses, and Juniper berries boyled in milk. 'Tis exasperated by giving of fat things before the spots break out.

V. *A pain of the belly*, which sometimes doth sogoad, that the sick fall into a rupture of the peritoneum. It troubles by intervalls with a pulse and urine scorbutical. Sometimes it lasts to the fortieth day, neither is it circumscribed with the course of the collick gut. And truly with a depression of the belly, that it is pulled inward with the navel, and this seems as if it were tyed to the loins; with a distension felt according to its longitude, a pulling of the right gut upwards, that nothing at al is voided. It arisetb from an effusion of that matter through the mesaraick veins, which do not open into the gutts, between the two coats of the guts. Hence is a distension, convulsion, pulling, drawing of the neighbouring parts into consent, a pregression of Feavers, whose Fewel is in the vessels of the bowels. It is cured by removing the cause; by mitigating it by laxatives and glysters, by which excretion ought to be provoked. The *elixir proprietatis* is very profitable.

VI. *A pain of the feet about the ankles and soles*, which is a fore-runner of the spots, and by reason of the thinness of the matter, it doth as it were penetrate the parts. 'Tis cured by a medicine made of the flowers of elder two handfuls, boyled in wine, adding two drams of soap, and applyed on a cloath to the part in pain.

VII. *Pains of the Hypochondries unbouded*, because the wind hath no passage out, *Nephritical*, either because the Matter descends by the emulgent vessels to the kidneys: or because being heaped up, and by the accession of an external cause, thrust to the greater vessels, it flows down to the kidneys. Of the

Loyns, which sometimes arise from vitious blood contained there, sometimes by way of a catarrh falling from the head by the veins upon the spinal marrow; hence the paines begin from the shoulders, and by degrees creep to the Loyns.

VIII. *Paines of the head*, which trouble about the evening, and are joyned with a certain Feaverish heat, which vanish away in the morning sweats; they afflict those principally who contract this evil from the suppression of the hemorrhoids. They arise from vapors ascending thither. They require, that *brooklime* be given in a greater dose, the quantity of hot things be diminished, the hypochondries be annoyed with things opening.

IX. *A Gout*, concerning which note, that it is *wandering*, especially if cold topicks; medicines be applyed; that for the most part 'tis joyned, with a light palsey, with a paine ceasing and returning. That it *ariseth* from ferrous humors, thin and apt for motion. That 'tis wonderfully *to be observed*, that if a live worne be layed upon the place that is fullest of paine it skips, winds and bowes it selfe about, waits away and dyes. Amongst *sweaters* that is appropriate, which is prepared of the roots of *Devils bit* one ounce; *rotund birthwort* three drams; the herbs of *Sage*, *betony*, each one handful. *Southernwood*, *Rue*, *Periwinkle*, *Savine*, each one pugil; &c. See *Horsfus* concerning the wandering scorbutical gout, Tom. 1. of his observations.

X. *A Palsey* which sometimes involves the the thighs, sometimes al one side. It differs from the *palsey of the ancients*, because some motion remains, 'tis interrupted, it assailes by little and little before it fixes, it follows no such fixt stupidity, paines of the colon and belly, tumors breaking forth in any part, and easily vanishing again. It *ariseth* from the scorbutical matter carried to the spinal marrow by that branch which is extended from the *Aorta*, not far from the mesenterical branch, and creeps to the back bone and its vertebraes. 'Tis Cured if the tendons be not rigid, the body being once or twice purged, by the use of *brooklime* and *scurvy-grals*; if they be hardened and rigid by emollient cataplasmes, premising *fomentations* of water, in which the leaves of *Sage*, *Betony*, *Rosemary*, with elder and *mélilot* Flowers have been boyled.

XI. *A Convulsion and contraction*, which sometimes grows so strong, that the sick are not able to extend any joint, and they are drawn

as it were round. 'Tis joyned sometimes with a rigidity of the turning joint of the mouth, on which the lower jawe under the place of hearing is reversed, so that the mouth shuts close, that it cannot rightly be opened. It *ariseth* from the rigidneis of the tendons, when in that tartarous but ferrous humor, this being disscuft that is left and dried. 'Tis cured by things mollifying and dissculsive.

XII. *A deepe sleep*, which sometimes afflicts, with a slow continual Feaver, sometimes with an intermitting; it comes with a fit, and that going away it ceaseth. 'Tis cured with *water-cresser* which grows in clear waters.

XIII. *A Palpitation of the heart, and swoining*. Concerning which we must know that it serves for the most part, when the patients rise in their bed the humors being stirred; sometimes 'tis so great, that they dye suddenly. 'Tis a certain sign of the *scurvy*, if it afflict in a disease that is final to the sense. It ought to be opposed by medicines given six or eight times a day with things antiscorbutical.

XIV. *Vomiting*, which is rather a vaine endeavouring, 1. To vomit, that hath no heaviness or pain of the stomach going before, it is not taken away by medicines that strengthen the stomach, 'tis rather quieted with milky things, that do lenify the humors.

XV. *Too much spitting*, which *ariseth* partly from vapors raised up to the mouth, from the bordering places of the stomach; partly from meats corrupted in the stomach, and carried up to the mouth along the course of the membrane lining the gullet: partly from a ferrous humor poured forth from the spleen into the stomach through the *Vas breve*. 'Tis prevented by avoiding of sharp and hot medicines which diffuse the matter.

XVI. *A Flux of the belly both diurnal and nocturnal*, which brings forth compacted excrements, but exceeding the meat in quantity, sometimes of a green, sometimes of an ash color. It *ariseth either* because the nourishment not attracted by the weakneis of the liver, is corrupted, or because the ferrous humor flows back from the spleen to the guts; or because the serum which might have been dissipated thorough the habit of the body in forme of a vapor by cold condensing the pores is driven back to the guts, or the vessels, especially in the morning time, when the body is open with heat, being bound up by cold, 'tis thrust back towards the greater vessels, and carries with it to the guts, whatsoever

blood went before, and causes enducing it, as blows, falls, &c. *'Tis dissolved with chervil water, dyers madder, with the seed of cresses, sperma ceti, and mummy, made into a powder.*

IV. Another is from *matter* which is generated there, or flows from some other part. It is known by the signs of an ulcer or impostumation in the kidneys, and the urine sometimes purulent. *'Tis cured by absterives.*

V. Another from *the stone*, of which shall be treated hereafter: in the meane while observe that *gravil* doth sometimes do it, which either is produced in the proper substance of the kidneys, which is known from hence, that 'tis hard and red, and thence rapt with the violence of the urine running is carried into its hollow part, afterwards is thrust down to the bladder, and when the water is made it doth sink, and is hardly bruised with the fingers. Or doth arise from the adustion of humors in the veines and liver, that which is voided in the declination of feavers both acute and chronical; *'Tis known* from hence, that it doth not subside, but is mixt with the substance of the urine, cleaves to the chamber pot like powder, and is easily bruised with the fingers.

Article. II. Of an inflammation of the Kidneys.

An inflammation of the kidneies, or nephritis, is a swelling of them from blood poured forth into their substance, and there putrefying, joyued with a vehement paine, fibrous or gravelly, excretions.

The *Signs* are a heavy and extensive paine about the loins to the first vertebra, which differs from the collick in these, because it doth not wander into the middle of the belly or about it with a murmur, doth not alwaies grow gentler the belly being purged, by its cruelty and fierceness it puls the peritonæum; 'tis very thick and frequent. There is a continant inordinate feaver, which sometimes increaseth, sometimes abateth, and about night is exasperated: a subversion of the bowels and stomach. A casting up by vomite, first of all of flegmatick things, afterwards of colerick; a scarceness, thinness, waterishness of the urine when the evil begins, sometimes a suppression, by and by that plenty and thicknes with a compulsion to piss from a certain fence of heat; A stupidity and numness of the next thigh, by reason of the compression of the nerve. A difficult raising of the body; lying down upon the

sick side mitigates the paine, upon the contrary exasperates it.

The *Cause* is blood, either pure or mixt, either heaped up in the kidneies by way of collection or thrust thither by way of fluxion, either from the whole body, or from a part, as is often said elsewhere.

The firmness and hardness of the kidneies seldom give occasion for a fluxion, oftentimes diuretick medicines doe, which carry the blood to the kidneies.

The *CURE* is easier if the hemrods come upon it, if the impostume being broke, a white, smooth, equal matter, not stinking, be voided through the passages of the urine if it tend to resolution. *Very difficult* if the Impostum being broke after suppuration, the matter take its way through the emulgents to the liver and guts. If it tend to induration. *Past hopes* almost if there flowe a white, thin, or purulent water, without the remission of the feaver and symptoms, and with a wasting on the legs and thighs. *'Tis ordered* as in other inflammations, yet we must observe. 1. That things moderately cooling and astringent be used with things anodyne for repulsion; outwardly indeed, least the humors subsisting about the external and fleshy parts be struck inward into the kidneies; but inwardly, least when they begin their striction about the belly, or liver and veins, they should either cast down the blood to the kidneies or by straightening the narrow passages, cause an ichury. 2. We must abstaine from purgers because they inflame and trouble the humors, yet gentle and benigne must be given, if cholera stick in the mesaraicks and stomach, least it be carried thither. 3. Diureticks must not be drank unless when the inflammation is perfectly alaid. Here takes place *tartar vetriolate* half a scruple, with the Julep of roses and cinnamon water two drams; and other things.

The *Differences* are taken from the part affected.

I. One is in the *Right kidney*, in which the loins on the right side are payned, the paine ascends more to the liver, the right thigh is benumbed.

Another in the *left*, in which the paine descends to the bladder.

Another in *both*, in which the symptoms oppress in both sides.

II. One is in the *fleshy part of the kidney*, in which a greater heaviness affects.

Another in the *parts in which the arteries are terminated*, in which a beating paine urgeth.

Article

Article. III. Of the Stone of the Kidnies.

The stone of the Kidnies, is a solid and stony substance, mucilaginous, slimy, tartarous, endued with a stone making faculty, arising in the kidnies by the help of heat.

The Signs are principally five, 1. A Pain, which affects in the loyns, causeth a sense of heaviness, by reason of the substance of the kidnies void of sense: in its descent into the ureters 'tis increased, by reason they which consist of a crosse and thick membrane, are distracted, especially if the stone be great, craggy, and rough. 'Tis distinguisht from the chollick, because 'tis neither so grievous, nor so large, because 'tis fixt, and is circumscribed with the region of the kidnies, and if it fall into the bladder, it follows the course of the ureters, and affects not with winde. 2. Bloody urine by reason of the wounding of the parts through which it passes, which at first is little and waterish, by and by supprest, the stones being removed out of the kidneys, 'tis turbulent, and having a sandy sediment. 3. A Numbness of the thighs which hapens not in the paine of the chollick, because the muscle on which the kidney lyes, and which is appointed for bending of the thigh, and is inserted into the inner part of the thigh, is compress'd. 4. A retraction of the testicle of that side, by reason of the retraction of the neighbouring vessels, which lead to the stones, and are inserted in them. 5. A nauseousness and vomiting; for the kidnies are knit to the stomach by the mediation of the peritoneum, whose membran each bowel participates, and two nerves of the sixth conjugation issuing from the stomach are implanted into the internal coate of the kidnies. The voiding of gravel is a signe of the stone in making.

The Cause is not flegme, for many are troubled with that, who have no commerce with the stone-growing juice; hence those that have the stone oftentimes make water, which is like mucous matter, and presently concretes into a stone. But this proceeds from the faculty of the nourishment, which if it be retained, glues it self to this or that part, by the new arrival of matter is dayly increased, being increased by degrees it is dried, and where it finds a viscous, thick, earthy matter, it coagulates it, and afterwards the internal spirit of the microcosmical salt comming, the which by reason of its natural viscoulness, or clam-

minefs that Tartar easily receives, and hides within it self, at last 'tis Coagulated into a perfect Stone.

The CURE is Difficult if bubbles for some daies are perceived to continue in the Urin, because they shew a great quantity of Tartarous and mucilaginous Humors, together with wind doth abound in the Kidneys. If from Urin remaine subtle, and last so for some time, because it argues a great obstruction. If the it an Ulcer of the Kidneys ensue. If the Patient be of Nephritical parents. It respects. I. Prevention that either it be not generated, or do not encrease, and then. 1. There must be care had of the Diet, in which meat and drink making for the stone must be eschewed; the contrary meats made use of amongst these are commended, asparagus moderately boyled, with Oyl of Vineger and Butter, taken at first Course, the fruit of Eglantine, the stones of the same boyled in broths, Chervil, Radish, Oyl of Oliver and sweet Almonds. 2. The matter collected must timely be emptied, that it do not concrete. By vomits given every month twice or thrice, by lenitive Medicines, especially Cassia, Turpentine, and those that purge water. By things that break it, if any thing be concreted, amongst which are commended the Decoction of the Nephritical wood, of Alehoof, the Juyce of Speedwel with the Water, and other things, of which hereafter. 3. The Reins must be reduced to their state, and here bleeding prevails, if the Liver hath raised a hot distemper in them, the administration of Strawberry, Purslain, Barley Water and anoynting with cold Unguents. II. The taking away of the stone generated, which is performed, 1. By clesing of the first Passages by gentle Evacuators, corrected with things that discuss wind. 2. By opening a Vein in the Arm, if there be a plenitude in the whole body, and the pain be great; of the Anckle, or Ham, if it be fallen upon the affected Part. 3. By Relaxing and making slippery the Passages, inwardly with the Syrup of Marshmallows, Liquorish, Violets. Outwardly with an Oyntment Compounded of Oyntment of Dialthea, two drams; Hens Grease, new Marrow of a Hart, each one dram; Oyl of White Lillies, one dram; of Scorpions, two scruples; Oyl of Wax distilled and spirits of Turpentine, of each one scruple; Wax, and Saffron a little. By a Bath of sweet Water, in which may be taken, Oyl of fresh

fresh Almonds, two ounces; Oyl of Turpentine, six drops, With a draught of Warm wine.

4. *By Removing, Breaking and expelling the Stone by Medicines that wil do that: the more Excellent of simples are, the magistral of Tartar Vitriolate, of Crabs Eyes, of the mandible of a Pike, and the Jewish Stone. Lapis Prunella, the essence of Crystals, the Nephritical Stone, the Aqua Vita of Juniper.* Horstius, T. 1. P. 481. Of compounds, Zacutus his Confection or conserve of the Nephritical Stone. l. 8. c. 16. Mysicbtus, his Nephritical liquor, Armament. P. 338. The mixture of magistral of Tartar Vitriolate dissolved, Crabs Eyes, Lapis prunella, the volatril Salt of Amber, and Untzerus his Saxifrage Water. *The generous Wine of the same Author, in which a sharp radish with the Rind taken off, and cut into thin slices, was steeped a whol day, given with the magistral of Crabs Eyes and spirit of Salt. The mixture of Muffet the English man, Cistæ Medicæ, p. 34. Of Libanius of white Saxifrage water, with Sugar of Violets and R. strained, with a little Spirits of Vitriol. Zuingerus his expeller of the Stone, Cist. Med. p. 35. 3. The removing of the pain, which is performed by the Oynments formerly prescribed for relaxing of the Passages, with a half bath prepared of things anodine, Cratoer Cataplasme of pellitory of the Wal, Parsly, Onions, &c. 4. The Discussion of wind, if there be any. See concerning the Stone, the excellent & most satisfying Treatises of Untzerus, Franciscus Collutius, and Beverovicus.*

Article, IV. *Of an Ulcer and Wound of the Kidneys.*

Concerning an Ulcer of the Kidneys, Let it suffice to have observed these things.

I. That it doth very seldom happen from an *Impostumation of a pblegmon*, by the Asrimony of the matter flowing thicher corroding the Kidney, by a blow, or fal breaking the Veins; yet if it do happen, the Cure doth require, that the falling down of Humors be stopt by Diet, by bleeding and purging; they already fallen must be temperd with coolers, nephritical means: must be employed with turpentine reduced with the yolk of an Egg into a liquor, or with the pouders of liquonish into a Bolus.

II. That it is alwaies truly Caused by a Stone restrained within it, which either by its

weight doth bruise the Kidney, or by fretting diminish and corrode it. Then the Ucin before it begins to be purulent, becomes bloody, especially after exercise and labor; none or an obscure feaver troubles them. If at any time the matter be stopt by the obstruction of the Head of the Ureter, that by degrees either redounding by the emulgent into the greater veins will defile the blood and habit of the body; or heaped up in that place, wil distend the Loyns, from which the Skin being opened it wil flow much and a long while.

III. *In the Cure the Decoction of Parsly, described by Doringius in his Mithridatechina, p. 150. Bears the Palm from al others.*

Concerning a Wound of the Kidneys, it shal suffice to have noted these things.

I. That it is known, by the Situation, suppression of Ucin, or difficulty of it, by its bloodiness, by a pain extending to the groins.

II. That it is divided into that which is in the Superficies and fleshy Part, and then much blood flows forth, the Ucin goes not forth; the stronger agglutinatives may presently be administrd: and into that which Penetrates even to its Cavity, and then the blood goes forth with the Water. In the Cure the blood must be stopt. This stopping, things agglutinating must be given inwardly and laid upon it; and here is of force, unguentum Sanctum of Andrew a Cruce, which see in Semernus, &c.

Chap. 2. *Of the Symptomes of the Kidneys.*

Concerning the Symptomes of the Kidneys, Viz. *The Separation of the serum hurt, and Pain*, few things present themselves.

I. *The separation of the Serum*, is hurt by the fault of the emulgent Vessels and Kidneys, which either labour of a cold distemper, and then the Ucin is not suddainly suppressed. Or of a streitnets, of which formerly. In the Cure, Diureticks must be given an hour or two before meat.

II. The Nature of the Pain may be fetcht from the Chapter of inflammation and stone of the Kidneys. At the seat of the Kidney is fixt and firm on either side, unless that sometimes

to the top of the bladder, and hangs down as it were from it, and then all the symptoms reckoned formerly, are more obscure, there have been those seen who have carried it without any pain: nay it can by no means almost be removed without injury to the patient. Of which see *Tulpius observat.* l. 2. c. 5.

Article, 2. Of an inflammation, scab, ulcer and fistula of the bladder.

An inflammation of the bladder, doth not so much possess the substance of the bladder, which is thin and bloudest, as the sphincter muscle of the neck of it.

The signs of it are, a bitter paine in the perineum with redness and heat, a suppression of the urine with a great endeavoring to piss, costiveness of the body (because the right gut is streined by the greatness of the inflammation) a distension of the pubes and pecten to the navel by reason of the abundance of water.

The cause is the same as of other inflammations.

The cure is difficult, because the affect is deadly for the most part about the seventh day especially, a Fever coming, and the stoppage of urine, and stools: yet if it be gentler, and the inflammation being changed into matter, the impostumation break inwardly, and is emptied by the urine, there is better hopes: and also, an erysipelas arising about the superficies of the skin, and plenty of water being made, sometimes tis suddainly dissolved. 'Tis ordered after the manner of other inflammations. Repellers must not be applyed long because the bladder is membranous, and is easily bound up, the urine suppress'd, and the nerves hurt.

II. A Scab of the bladder is known by an itching in the pecten, by the strong smell of the urine, by a brainy sediment residing at the bottom. It arises from sharp and salt humors corroding the internal superficies of it. 'Tis cured in old folks hardly, the humors are partly to be emptied, partly qualified by the four cold seeds, violet flowers, strawberries, either taken inwardly, or outwardly injected through the urethra.

III. There is no need to say what an ulcer of the bladder is, it appears from the former.

The signs of it are, scales and matter, which flow forth only with the urine, and sink in it, and so 'tis distinguish'd from an exulceration of the urinary passage, in which the matter and filth, either goes before the urine, or appears presently at first coming forth, or also flows forth without urine. There is a continual

torment about the bladder, pubes, and perineum; the urine also is thick, and sometimes mixt with matter, sometimes with blood, &c.

The causes are divers, of which in the differences.

The cure is of little hopes, both because the bladder is membranous, and because the urine which is biting by its continual running down, hinders its consolidation. 'Tis ordered after the manner of other ulcers.

The differences are taken chiefly from the causes.

I. One is from *cantharides*, and then if it be lately, we must give milk plentifully, by and by consolidate. If it be inveterate, it must be cured as other ulcers.

Another is from *sharp urines*, which the use of pure wine and hot meats hath caused, and then we must act with cooling diureticks.

Another from *sharp or salt humors*, as it were *knawing its internal superficies*, and then,

1. We must empty with *callia* and *turpentine*,
2. We must temper them with *water lillies*, *lettice*, *endive*, &c.

Another from *the stone*, of which formerly.

II. One is in the bottom, in which the pain is felt about the pubes.

Another by *the urinary passage*, in which at the time of pissing the pain is felt more; and especially when they begin, and when they make an end to piss.

IV. The cure of a *fistula*, see in *Langius*, l. 3. epist. 5.

Article, 3. Of the straitness of the Urinary Passage.

The straitness of the urinary passage, is an interception of the same proceeding from its causes and inducing a stoppage of urine.

The signs, causes, and cure, If you consider this affect in general, have nothing singular.

The differences are taken from the causes.

I. One is from *obstruction*, which is caused, 1. Either from *the stone*, which is known by this, that signs of the stone were precedent, the urine is sometimes made freely, sometimes the stone falling from the bottom of the bladder into its orifice, 'tis suddainly stop't, the pain utteth most at the root of the bladder; The cure consists in removing of the same, by shaking of the thighs if it be great that sticks at the orifice

orifice : by bringing it out of the extremity of the urinary passage, if it be small, and can be moved out of its place : by laxative fomentations, and things that break the stone, if it cannot be moved out of its place with the fingers. 2. Or from *clotted blood*, which is known by this, that a wound or rupture of a vessel went before the blood was poured forth, with the urine; outwardly common ashes may be applied with honey. 3. Or from *matter*, which either was in the kidneys, or bladder, or by the breaking of an impostumation in the upper parts was carried thither. 4. Or from *thick and viscid flegm*, and then the urine is almost totally supprest, there are present signs of flegm; we must use things incisive and attenuating.

II. Another is from a *constriction*, by a caruncle, a callosity, a wart, growing in the passage of the urine, which is known by this, that neither the urine is pist out freely, nor the seed sent forth, great pains are present; tis tryed by a catheter or wax candle put in. But because the urine alwaies flows alike from the stone, because 'tis never almost wholly intercepted by a flegmatick obstruction, upon that account 'tis known. It is cured by things that *soften, and consolidate*. Of those is commended, premising universals, *oyle of Mercury* with a little sugar of saturne and camphure, (amongst which I reckon the decoctions of China and saffras) the powder made of *mercurius dulcis* half an ounce; crude antimony one ounce; tutty prepared two drams; of the use of which consult *Hartmans Chymistry*.

III. Another is from *compression*, which is caused, either from the coldness of the right gut; or from the inflammation of the neighboring parts, or from the swelling of the yard, and neck of the bladder, or the contorsion of the bladder; or the falling down of the bladder into the Cod. The Cure must be directed against the diseases.

Chap. 2. Of the symptoms of the bladder.

Article, 1. Of the incontinency of the urine.

The Symptomes of the bladder are, incontinency of the urine, a diabetes, an Ischuria, a Strangury, dysuria, bloody pissing, purulent, &c.

Incontinency of the urine, is a sending forth of the same, by reason of the resolution of the sphincter muscle, or compression of the bladder, without any sence of acrimony and paine, beside the wil of our command.

There is no need of Signs in an affect so manifest.

The cause is cast upon the resolution of the sphincter (of whose causes in the differences) and the compression of the bladder; which comes to pals, either from a convulsion of the muscles of the belly, or from the greatness of the young one about the last months, or from a tumor placed upon the bladder: of al which respect must be had in the cure.

The cure varies according to the nature of the Differences.

The Differences are taken from the causes inducing the resolution of the sphincter, and the time.

I. One is from a palsy of the nerves, which from the loines are inserted into it, by reason of which it cannot contract it self: and then 'tis harder to be cured, if the spinal marrow be affected or the muscle it self wounded. The causes by reason of which a palsy comes, must be inquired from its chapter, and as they vary, so the cure must be varied.

Another is only from the laxness and softness of the sphincter, and then the patients can neither endure the acrimony, nor abundance of urine, when the animal powers are asleep. For the cure are commended, *Diacymium, Frankincense* drunk in wine; the throat of a cock, roasted and dried, that it may be ground to a powder, given at night in astringent red wine. The bladder of a goat dried in an oven and powdered given likewise one dram weight.

II. One also is diurnal, which afflicts the apoplectical and paralytick.

Another Nocturnal, which is wont to happen to children, by reason of the cold and moist distemper of the muscle, or not thinking of it: in succeeding yeates, the muscle of the bladder growing dryer and stronger it ceases. By reason of continual drinking for the most part it follows those of riper yeates to their death.

Article, 3. Of a Diabetes.

A Diabetes is a most quick and plentiful pissing of the drink unchanged, arising from the intense attractive faculty of the kidneys, and afflicting with a strong perpetual thirst.

The *Part affected* is the kidneys, yet so, that the bladder also oppress'd with the plenty of urine, contents.

The *Signs* are plentiful pissing, little or not at all changed, a strong thirst, not any satisfaction from the taking in of any liquor, a paine, pricking, and heaviness about the loins, a colliquation of the whole body, the belly dryed and withered.

The *Cause* is controverted amongst physicians, we hold 'tis the intense attractive faculty of the kidneys, arising from a very hot distemper of them, which is caused by an afflux of sharp and biting humors, viz. choller and salt flegme, impacted in the substance of the kidneys: the too great largeness of the emulgent vessels and ureters, the heate of the liver, pestilential feavers, the weakness of the stomachs retentive faculty, doe help. Thus when the kidneys draw plenty of serum from the veins, and cannot contain it by reason of their weakness, they send it to the bladder, the veins again draw from the liver, this from the stomach, whence the orifice of this being emptied and dryed, there ariseth a continual thirst, &c.

The *Cure* is too difficult, and for the most part passeth into a hectick, and dryness of the whole body. 'Tis ordered. 1. By things that correct the distemper of the kidneys, where bleeding also takes place. 2. By things that dul the acrimony of the humors, and make the blood, and with it the serous humor slower to motion. The essence of crocus martis described by Crollius, Baths made of smilix water, drink, but little of the decoction of harts-horn, salt of corals, &c. are thought to be prevalent.

As Concerning the *Differences*, 'tis only one.

One is an exquisite diabetes, of which we have now treated.

Another *spurious*, which is nothing else but a colliquative flux of urine, while the juyces in the veins, or in the substance of the body are changed into a serous matter, which attracted by the kidneys, slides through them, and descends to the bladder.

Article. III. Of an Ischury.

An *Ischury* is a suppression of the Urine by reason of the disappointment of the expulsive faculty, so that none of it can come forth.

There is no need of *Signs* in an affect so manifest.

The *Cause* is the disappointment of the expulsive faculty, the causes of which we shall explain in the differences.

The *Cure* must be hastened, least it regurgitate into the whole body, oppresse the liver, infect the blood, and cause a danger of suffocation. Oftentimes the humors putrefie, feavers are kindled, and unless they pisse before the seventh day, they dye. There is no cure if it arise by reason of the deadly concourse of fits; if it come from a wound of the back bone or luxation of its vertebrae. If the hickops or a tenesmus come upon it. It respects. 1. The *symptom* it self, that the urine be provoked, here meet us, a pressing of the belly with holding of the breath; putting up of a catheter, unless an inflammation doe hinder, or of a wax candle dipt in oyl of sweet almonds; suppositories and sharp glysters, by reason of the communion of the right gut with the bladder, fomentations of the pubes and perinæum with the decoction of pellitory of the wal, melilot, chamemel. *Caraplasms* of horse raddish bruised and fryed in butter. The juice of a cray fish baked and strained through hair, given in wine. The salt of beane coods. The decoction of buck-thorn in wine; of gillyflowers with their root dryed in the shade with wine of quinces. 2. The *Causes* of the *Symptom*, of which in the differences.

An *Ischury* is divided twofould.

One from *Diseases* of the bladder, which is known by this, that a continual desire to pisse doch oppresse them, the pubes is distended and pained by the collection of abundance of urine by putting in a catheter plenty of urine flowes forth with ease. Those *diseases* are. 1. A *stupidity*, by reason of which it feels not its spur, either by reason of a palsey and obstruction of the nerve, or the aversion of the spirits; and then although the bladder be full, there is no desire to pisse, nor no paine felt. 2. A *cold distemper* contracted from cooling causes, and then such causes went before; diureticks must not be used unless the body be purged first. 3. A *streightness*, either by reason of a tumor of the muscle compassing the neck; or by Reason of a stone, and other things formerly alledged, if from this, 'tis sometimes cured with an emulsion of the seeds of purple violets made with speedwel water. 4. *Too great an extention*, & then the urine hath been retained too long against the wil, we must act with fomentations of pellitory of the wal with oyl of sweet almonds.

Another is from the *streightness* of the urinary

mary passage, which is known from hence, that the urine is not voided by compressing the bladder, and that a catheter is difficultly put up. See the Cure in its chapter.

I I. One is exquisite, of which we treated even now.

Another *Spurious*, which is knowne by this, that the bladder is empty, so that no water flowes forth though a catheter be put up. There is no heaviness or distention, or paine perceived about the pubes though you presse it. It ariseth either by default of the Kidnies, which do not attract, or expel the matter of the urine, either by reason of its owne diseases, of which formerly, or by reason of some external error, viz. because the serum is either consumed, or converted to some other parts; Or by default of the uriners which either are bound up, or obstructed, and then the patient was subject to the paine of both kidnies, there is a great heaviness in the loins, and sometimes a vehement paine torments every where, there is little or no desire to make water. But the *specificke* in this disease are thought to be, earth worms in number five, drunke with sweet wine. An egg-shel purged, from which a chickin hath been hatched. Goats piss drunke warme, its caule and guts applied to the belly, &c.

To an *Ischury* belong, A deminution of the water, which in malignant and acure feavers is therefore had, because it is a signe that the nerves are affected. And the slowness of urine when it is voided at longer distances than it was wont; because they differ from an ischury only gradually, therefore we wil treate no more of them.

Article. IV. Of a strangury.

A *strangury* is a voiding of urine by drops, made with or without paine, and a continual urging to piss, arising from a continual goading of the expulsive faculty of the bladder, by reason that the sphincter is affected, or from the weakness of the retentive faculty oppressed with the least burthen.

The Signs of an affect so manifest are evident.

The Cause is explained in the definition, viz. the irritation of the expulsive, or weakness of the retentive faculty, but from whence they are, shal be express in the differences.

The Cure is of little or no Hopes almost, if it come upon an Iliack passion proceeding from an obstruction of crude and thick Humors, no Feaver following it, which may attenuate the Humors. 'Tis ordered according to the diversity of the Causes, of which hereafter.

The Difference is taken from the Causes.

I. One is with pain proceeding from the irritation of the expulsive faculty, and it ariseth. 1. From the Acrimony of the Urin, which either is inferd by external Causes as meat and drink, hot and Salt, new and dreggy drink, which when it cannot be concocted commodiously, and hath a power to ferment the Humors, and loosen the Belly, if it be quickly carried to the Kidneys, 'tis carried crude to the bladder, and stimulates it. Then drinking of Spanish or Mallego wine, does good, Nut-megs, Goates Fat put on the Navel. Or from internal, Viz. Sharp Humors, either produced there, or sent from elsewhere, which being viscous do by their clamminess stick to the Orifice of the bladder, and sometimes by their long continuance exulcerate the same. They are known by this, that the Urin is red and Yellow, there is a sharp biting felt, with a heat and thirst. The Cure requeres emptying by Cassia and Turpentine. Tempering by coolers and moistners, and a bath of sweet Water. Promotion of the Urin, By Salt of Acorns, of bean stalks, half a scruple; Oyl of Wax, three drops; in the Decoction of red Vetches. By the powder of stones squeezed from the Heads of Snails, given in Wine. 2. By matter sent from the Liver, Kidneys, or else where, and then some of it wil appear in the Urin; they with Sugar of Roses is good. 3. From the Stone, which Excoriates the bladder, to which we must have respect. 4. From an inflammation, of which was spoke formerly. 5. From the affects of the neighboring Parts, for upon an Inflammation of the right Gut and Womb, and purulency of the Kidneys there follows a dropping. Upon the falling down of the Womb, the Urin comes by drops, and is a little biting.

Another is simple and without pain, which is known by a white, Watty Urin, by the Age, Complexion, cold course of Diet, pregression of a burning Feaver. It ariseth either from the refrigeration of the bladder it self, and the Muscle shutting its neck, and then Diagalanga, Michridate, &c. are wel taken inwardly.

Oyl of Rue is well outwardly applied. Or from a Compression of the bladder, which is wont to happen in great Belled Women.

Article, V. Of a Dysury.

A Dysury is a making of burning Urin, sometimes little, sometimes much, with pain, without interruption, arising from Causes both external and internal, affecting the Urinary passage.

The SIGNS are evident, for the pain is easily perceived by the Patient.

The CAUSES are whatsoever can dissolve the continuity of the Neck of the Bladder, or of the urinary Passage, or Cause pain in pissing.

The CURE is Difficult if it fall upon Decreped Old men, if a suppression of the Urin happen with it. It respects. 1. The Cause, which must be moved by the aforementioned emptyers, which ought to be followed with essence of Turpentine, one dram; with Parsley-water, and Syrup of Citrons. 2. The Pain, which is mitigated with warm Milk cast in by a Catheter, by dipping the privities in a Vessel full of Milk, by a Caraplatine of Pellitory of the Wal with Oyl of Scorpions, &c.

The Causes raising the pain do afford us the Differences.

One is from things external, as Cantharides, and then milk is good; from Poyson, and then we must act with things alexipharmical.

Another from internal which, are, 1. The Acrimony of the Urin, of which formerly. The water of bean flowers or its fresh Gods given with Syrup of Liquorish or Poppies, six ounces weigh before meat is good. Also Fallopius his Electuary, in Sebenkius in Exoter. Experi. Cent. 4. 19. 2. An Inflammation, whose pain is encreased the bladder being contracted to send forth the Urin, and compressed after the emission, which oftentimes an exulceration follows. 3. A Stone striking against the Neck of the Bladder in pissing. 4. The Seed moved in men but sticking in the Passage, and by an Acrimony contracted corroding the Passage, which is wont to happen in the French Pox. 5. A coarcted and milkie matter, which sometimes is sent forth in such abundance, that when 'tis letted it fills one half of the Chamber Pox. The which ariseth from a Vicious Concoction, in which the Salt and Tarrarous parts

are not separated, but are attracted by the Kidneys. It is Cured, universals premised, by the use of Hyppocrist or Mallago Wine.

Article, VI. Of Pissing of blood, matter, and Hairs.

Bloody Pissing, is a voiding of Blood together with the Urin arising from the heaping up of the same in the Bladder.

The SIGNS are, that the Urin doth not shine, and hath the Color of Water, in which the flesh of beasts new killed is washt.

The CAUSE is explained in the definition, and in the Difference more shall be said.

The CURE must be hastned, if the evil be inveterate, least it lead to a Consumption or cachexy. If it be cast forth in abundance, least it stop in the Bladder and putrefie. It must be turned against the Cause. The Symptoms requires, other things being alike, things astringent, condensing, and consolidating; amongst which do excel, Yarrow with the white flower, the Tincture of emeralds, the Arcanum of agrimony and Cinquefoil. Mynsichtus his Decoction, &c.

The Difference is taken from the Parts that pour forth the blood.

One is from the Kidneys, which is known by this, that it is plentiful, is exquisitely mixt with the whole Urin, that being as it were diluted with it, 'tis thin, ruddy, liquid and settles without clotting together. It ariseth either from the Anastomosis of some Vessel in them, and then 'tis made plentiful and high colored; or some violence or wound hath went before, or there are signs of Fulness, or the blood is too thin. Or from the corrosion of a Vessel, and then the blood is voided in a lesser quantity, especially at the beginning. Or By a Diapedesis, and then the Urin is lightly dyed with a red color. The Cure also requires opening a Vein in the Arm, which must be followed with the use of astringent means inwardly and outwardly. The Trochisks of Gordonius are good.

Another is from the Liver either weakened, or opprest with blood, or affected with the same diseases as I said even now; and then there are no signs of the Kidneys affected; we must consult with the Chapter of the diseases of the Liver. Hither belong the suppression of the Hemorrhoids, of which in its place; a wound

of the ureters from stones passing through them, from which very little blood flows forth, &c.

Another from the Sphincter muscle of the neck of the bladder, and then the Urin is not equally spread over with it, the blood feeling goes into clots, the pain for the most part oppresteth in pissing, and burns as it were the Root of the Yard, other signs either of an Ulcer, or of a Vein broke are present, the Cure is the same.

Another from the inward Passage of the Yard, and then it oftentimes comes forth without the Urin, that which comes with the Urin, clotting together presently links.

II. *Purulent Pissing*, is a voiding of matter with the Urin heaped up in the Bladder. 'Tis heaped up. 1. By default of the bladder it self, either because that is troubled with an Ulcer, or because the blood contained in the bladder is turned into matter, and then the matter is voided less mixt with the Urin with branny Scales. 2. By Default of the ureters, and then a little swims a top like Hairs. By default of the Urinary Passage, of the Spermatick Vessels, and the parastate, and then in the first place it comes forth sincere. 4. By default of the Kidneys, Liver, breast, in as much as those parts do transmit matter through the Veins to the Bladder; and then the matter is accurately mixt with the Urin, if any thing thicker be a Part, it flows forth towards the end.

III. *A Pissing of Hairs or Trichiasis*, is when with the Urin a mucous matter is voided sometimes like to Hairs, sometimes to thin Leaves. Those Hairs sometimes equal the length of one or two hands breadths. The Cause of them is a thick and viscous slegm, dried and knit together in the Veins by heat, which in its long passage through the narrow Veins of the Kidneys and ureters is extended to so great a length. See concerning this Horstius his fifth Section. *Epistol. medica*. In the Cure, Spirit of Turpentine with Syrup of Marsh-mallows is good.

[Read more of this subject in the Guide to Physick and Chyrurgery, Riverius Practice of Physick, and his Observations; and the London Dispensatory. Al of the last Editions, Englished by me.]



Title, X. Of the Affects of the Genital Parts in Men.

Chap. I. Of their Diseases.

Article, I. Of the Diseases of the Stones.

THE Diseases of the genital Parts in men have under them the Diseases of the stones, Gods, and Yard. The principal Diseases of the Stones, are which follow.

I. *A Distemper*, and that either hot, which is known by a proneness to Venery, by too much and hot Seed, by heat of the stones, by swelling of the Veins about them with blood. 'Tis Cured by a contrary Diet, and cooling Medicines, of Liltice, Water Lillies, Parslane, but especially by those compounded of Sugar of Saturn, and fallow Leaver. Or Cold, which is known by little and Warry seed, by casting it forth with little or no Pleasure, little desire to Venery, cooling Causes went before, or immoderate and unseasonable Venery. 'Tis Cured by a contrary Diet, and taking of medicines, inwardly, Betony, Calamint, Marjoram, Sage, Nettles, Nutmegs, Diamoschum. Outwardly, Oyl of Costus, Spike, of Aunts. Or moist, which is known by this, that the Seed is cast forth too soon. Or dry, which yeilds little and thick. They are Cured by their contraries.

II. *A Tumor*, which either is an Inflammation, in whose Cure (for of the rest I have nothing to say) observe. I. That while Medicines are applied to them, the ligature ought alwaies to tend towards the upper parts, that they may not hang down too much, and the defluxion may be leis. 2. To intercept the flux, a defensive must be laid on the side of the Pubes, where the Veins and Arteries from the belly tend to the stones and Cod. 3. Other things being alike, the Decoction of Agrimony with Wine and Vinegar is commended. The Root of wild Cowcumber likewise boyled. The Herb Paris green, bruised and applied. See. A Schirrus or another cold and hard Tumor, which

which oftentimes ariseth from an Inflammation ill Cured. 'Tis taken away with a Cataplasme, of Lattice Roots boyled in sweet wine with the flower of Flax, Barley, Fænugreek, Onyons, &c. Which must be followed with a Liniment of the Balsom of Sulphur, and the Plaster Diaphanum. Or an insfusion, for the Cure of which serve the Leaves of Henbane and a draught of Juniper water, one ounce weight every day with the Rowls of Diacyminum.

III. *Ulcers*, which because they are in a moist place are dangerous, and sometimes turn to a Cancer or Gangreen. They ought to be washt with the decoction of Roses, Leaves of Speedwel, and Plantan; they may be mundelied with the Oynment of the Apostles.

IV. *A Contusion*, which is joynd with a great pain, it corrupts their Oval Figure, and oftentimes takes away the power of generation. We must timely oppose the pain, least a Defluxion be Caused.

Article, II. Of the Diseases of the Cod.

The Diseases of the Cod are, *Inflammation, Excoriation, Wounds, Ulcers, and Rupture*. Of them there is no need to say any thing. An *Excoriation* is often Caused by the Urin, the upper Skin being corroded, and 'tis Cured by sprinkling of Pompholyx, or dryed Myrtle finely powdered, searced, and mixt with Frankincense or Myrrh.

A Rupture of the Cod is a Tumor of the same, arising either from the cause falling down into it, or from wind or water collected there, or a masse of Flesh generated there.

The Species of it are four, if you consider the Differences.

1. One is *windy*, or a *Pneumatocoele*, which is known from hence, that the Cod, sometimes also the stones is very much distended without a weight & heaviness; the wind is felt if the Cod be prest with the hands, and is removed from place to place with a noise. It ariseth from winds, which are either collected there, or transmitted from the neighbouring Guts and Belly: and 'tis most familiar with Children. 'Tis Cured (premissing universals) by things discussing outwardly and inwardly applied. A *Cataplasme* of Bay-berryes, the flower of Beans and Fænugreek, with Bran, the powder of Cunmin seed,

ammoniacum, turpentine, oxymel, and oyl of bays mixt together is good.

II. Another is *watry*, or a *hydrocele*, which is known because there is perceived a waving, the cod appeares as it were shining; the tumor alwaies continues at the same bigness, neither doth it go up into the belly by pressing it. It ariseth from water, which for the most part flows thither from the belly, for those causes which are mentioned in the droply. It is cured,

1. *By prohibition* that the watery humor be not generated, or flow thither, of which see the differences. 2. *By emptying the water fallen thither* either insensibly, to which end the former cataplasme wil serve; or sensibly by opening of the cod, of which see Authors. 'Tis divided diversly, 1. One is from *water only* distending the cod, another also from *wind* joined with it, in whose cure we must have regard to both: another from *flesh* growing together about the stone, whose cure must be warily handled that it turne not to a cancer. 2. One is *with a droply*, and then the cure must be directed against the droply; Another *without a Droply*, in which although there is not such great plenty of water, that it can raise up the belly into a tumor, that there is somewhat of it collected in the cavity of the belly, by reason of the weakness of the parts, especially an external cause being added, as striking &c. The tumor either posselles the whol cod, or only one side; and then the humor sticks in the erythroidal membrane that containes the stone. The right stone never, alwaies the left swels. Or the fault is in the *left kidney*, through which when the serum cannot descend, it falls through the seminal veine proceeding from the emulgent of the left kidney, into the erythroidal coate; from the cure of which we must either abstaine, or the cod must be opened only in the lower part. Or it is not, and then the cod must be cut in the upper part near the groin, that both the humor may be emptied, and the afflux of more through the skar of the erythroidal coate be hindered. See *Frabricius* his observations. 3. One is when *the water is contained between the erythroidal coat, and the darton*, in which the tumor is rounder, like an egge, the stone is hidden from the sight and touch, the cod it self is more white and is distended little or nothing: another is, when 'tis out of that betwixt it and the adjacent skins, in which the stone is to be felt, the cod is more distended. Another when 'tis in *its proper skin or coate growing over it*, in which the tumor is every where globical, resem-

Chap. 2. *Of the Symptomes of the genital parts in men.*

bles the draft of another stone.

III. Another is a *fleshy rupture* or a *Sarcocele*, in which something fleshy is bred: It is known by a hard tumor, increased by little and little, afflicting without a tumor of the groine, by which it is distinguished from a rupture of the guts; 'tis for the most part in the right stone because nature doth most commodiously cast off the blood to the stones by the seminal veine issuing from the cava. It ariseth from an impurer blood flowing to the testicles and cod, by degrees dropping from the membranes of the vessels, and changed by nature that is never idle, into a substance like unto flesh. 'Tis cured, 1. By represson with repellers and dryers, the powder of the root of Rest-harrow is commended, 2. By cutting, of which see Authors. 'Tis divided into a *scirrous one*, in which there is neither pain nor heat; and a *malignant one*, in which there is felt a pricking pain.

IV. Another is *various*, or a *Cirfocele*, in which the vessels nourishing the stones are dilated like to varices. 'Tis known by this, that the veins are sweld, and wreathed and rounded like shootes of vines, the tumor is oblique and rowled up like a grape; spring and autum, the the guts being distended with wind, or the feet cooled, a pain accompanies it. It ariseth from a thick melancholy humor poured into the vessels. 'Tis hardly cured, things drying, and hanging the stones in a truss are good. Cutting can scarce be used without hurting of the stone.

Article, 3. *Of the diseases of the Yard.*

The diseases of the yard are various.

I. *A distortion*, which befalls those, who indulge too much to venery, and have their genitals along while distended; for then the spirit concluded in the ligaments, acting violence upon some part of another ligament doth relax it, and makes it bunch forth like a beane or glandule, by which means it comes to pass, that how much is added to the accustomed latitude of the part, so much is bared of its longitude: 'Tis cured by abstinence from venery, and by those things which serve for the cure of a rupture. See *Arantius*.

II. *Inflation and inflammation*, of which, that doth sometimes arise from lying with a woman whose womb is uncleane, and repleat with sharp humors; we meet with nothing singular concerning them.

III. *Warts and excrescencies*, which either

are upon the top of the nut, which degenerate into a cancrous Sponginess; or they bunch out about the flesh of the nut and under the foreskin it self, and they are soft, spongy, alwaies moist, smelil, and are dayly increased, and are familiar with them that are troubled with the French Pox. They require Chirurgery.

IV. *Ulcers*, which are divers, 1. Some are *external*, which are apparent to the sight, yet sometimes when they are about the nut and foreskin, they cannot be seen by reason of the swelling of the part. If the region of the nut be exulcerated, all medicines ought to be drying. Others *internal*, sticking in the urinary passage, which are known by the pain caused by the urine passing by, and the matter coming forth before the urine, the yard swelled and distended. They arise either from an impostumation following an inflammation, or from sharp urine, or from rough stones, and rough things hurting in their passage. They are cured as others be. 2. Some penetrate that both external and internal parts be exulcerated, and the ulcer pierceth even to the urinary passage. Others not so. 3. Some are old, *fordid and rotten*, which are wel washt with hydromel and wine. Others are *virulent*, as those that happen in the French Pox, in which we must use precipitate mixt with a convenient linement, til that which is callous be wasted away. If a gangrene or mortification follow, it must be cut.

Chap. 2. *Of the Symptomes of the genital parts in men.*

Article, 5. *Of the generation of seed hurt, and the erection of the yard.*

THe symptomes of the genital parts in men are, the generation of seed hurt, the erection of the yard hurt, *Lechery*, a *Priapisme*, a *Satyriasis*, and the riving of the *Reins*.

The generation of seed hurt is, when either it is not generated, or not such as may serve for procreation. 'Tis twofold; therefore one is when the seed is not generated, which comes to pass either by defect of matter, or by the things non natural, as hunger, watchings, or by things preternatural drying up and wasting it, especially the diseases of the heart, or by reason of the attraction of the same by other parts, which comes to pass both in children, and fat folks, in whom all the nourishment is changed into the substance of the body.

Or by reason of a fault of the faculty of the genital Parts, whether it be innate, or acquired, as a defect of the Vessels generating or carrying the Seed, bewitchings, incantments, &c. Another is when 'tis not generated fruitful, which comes to pass, either by reason the matter is not commodious, too hot, moist, or dry. Or by reason of a cold distemper of the genital Parts, which sometimes is contracted by too much lust in youth, by applying mercurial Oynments to the genitals, &c. There is no need of Signs. The cure must be directed against the Causes. But the Seed is increased by the greater Root of Dogs stones, cubebs, the Yolk of a new laid Eg with Wine and a little Oyl of sweet Almonds. Crollius his essence of Satyrion, Mynsichtu, his Confectio Magnanimiritatis, and de Succulata Inda.

II. The erection of the Yard hurt, or a viril impotency is, when that by no endeavors can be erected, or extended.

There is no need to treat of the Signs. The Causes and Cure, are expounded in the Differences.

The Differences are taken from the Causes.

For there is one viril impotency from the defect of Seed, either because it is not, or because it is but little, or crude, and doth not stimulate, of which we have spoke formerly.

Another is from the defect of vital spirits, either because they are few by reason of the coldness and dryness of the heart, or because they are called another way, which happens in meditations, fear, bashfulness, &c. Or because they are not received by the substance of the Yard, either by reason of a stupidity of the Member, or by incantments.

Another is from a resolution of the Yard, effected by those Causes, which we mentioned in a Palsie. See Medicines serving for this Disease in Stockerius, l. 1. c. 55. Where he makes mention of Satyrion, five ounces; which ought to be mixt with the blood of Sparrows, ten ounces, and be held under the Arms. Some say that lust is wonderfully provoked, if the great Toe of the right Foot be anoynted with Oyl in which Cantharides have been dissolved. And also a simple washing of the Privy ties with the Decoction of Columbines, which must be followed with a Fumigation of a dead mans Tooth powdered, and cast upon the coales.

Article, II. Of Lechery, a Priapisme, and Satyriasis.

Lechery is too great a proneness to Venery by default of the Seed, sometimes also so great, that 'tis turned into madness. The fault of the Seed consists, 1. In the plenty of it, either from the abundance of blood, or from the heat of the Vessels dedicated to the generation of Seed, by whose means more is attracted. In the Cure, we must act with things that consume the Seed, amongst which Mint and Sugar of Saturn excel. But a Vein must be opened also, and the Patient Purged. 2. In its Acrimony, contracted from hot meats, Medicines and sharp things, which must be opposed. 3. In its Commotion, whiles seeking a Passage, it cauleth an itching.

II. A Priapisme is an erection of the Yard without any desire of Venery, arising from a windy Spirit filling up the hollow Nerve of the part. That Vaporous Spirits ariseth either in the Nerve it self from a cold distemper, or in the Yard and Vessels from a thick and crude Humor by an unproportionate heat, and here the distilled Oyl of Rue takes place. For the most part 'tis by Reason of the mouths of the Arteries are too open and dilated, pouring forth plenty of Spirits, because perhaps the Loyns and Kidneys being heated they grow hot, and are filled with much spirits, which happens to those that abound with much blood. In the Cure, universals premised, Water Lillies, the Seed of the Chaiſte Tree, and other coolers ought to be applied.

A Satyriasis is a Palpitation of the Yard following an inflammatory disposition of the spermatick Vessels with a distension. It happens rather to young men, than to other Ages; the Cure must be hastened least they fall into a resolution or Convulsion of the Seminary Vessels. We must have a Care of Purges in it, unless Perhaps we can make an averſion by Vomits: and from things that move Urin.

Article, III. Of a running of the Reins.

A Gonorrhoea is a too great and involuntary shedding of the Seed, arising from its own fault and the fault of the Spermatick parts.

The

The SIGNS are evident, the seed is shed against their will, without lust and dreams of lust, without any stiffness of the Yard, with no sense of delight, or very little, from whence is caused a slenderness of the whole Body, about the Loyns especially, with a paleness and hollowness of the Eyes.

The CAUSE and CURE shall be explained in the Differences. The Flux is stopp'd by the magistral of the bone of the fish Sepia, given from six grains to half a scruple with old conserve of Roses. By fixt Antimony with Plantain Water.

The Difference is taken from the Causes.

One is by default of the Spermatick Parts. 1. Of a cold and moist distemper, which either ariseth from external Causes endew'd with such a vertue, and weakens their retentive faculty, as too much Venery, or from an afflux of Humors, in which Case emptying and binding with heaters mixt takes place. It is the easier Cured, so it be new, the powder of Turpentine, given with milk for fifteen daies does good. 2. by default of their Laxness when their Bladders containing the seed, and the Vessels that carry it, are too much enlarged and Relaxt.

Another is by the fault of the Seed it self, which is, 1. Plentiful, by forbearing from Venery, and by using meats that nourish well, and then bleeding, Fasting, exercises do good. 2. Sharp and hot stimulating the expulsive faculty, which proceeds from the like blood, by reason of the heat of the liver and Kidneys; and then a priapism for the most part is joyned with it, external Causes went before. The Cure must be ordered, by emptying of Cholera, by anointing the back bone, and Loyns with cooling Oynments. 3. Crude, watrish, and thin, and that either by reason of the coldness of the stones, or of things taken, or the like distemper of the Liver, and then the Seed comes froth even at the touch of a Woman, there are present the signs of crudity. In the Cure we must act with driers and strengthners. The essence of Turpentine is commended given one dram weight in Syrup of Agrimony. Or by reason of the abundance of Vicious Humors in the body, which are sent to the Spermatick Vessels, and then we must act with emperiers and good Diet. 4. Virulent and Malignant, as is contracted in the French Fox, which is known from hence, that at first a white Poyson or somewhat

Yellowish falls from the Spermatick Vessels insensibly, as well when they wake as sleep, which in time putrefies and gets an Acrimony, eats and exulcerates the Passage of the Yard, from whence ariseth a pain, which also when 'tis stiff does stretch a string as it were under the Yard, and in pissing does goad sharper as it were in a dysury; that is sometimes hollowed so deep, that it breaks outwardly at the upper Skin of the Yard. It ariseth from a weakness of the Spermatick Vessels and stones, contracted by that poysonous Evil, which causeth that whatsoever is collected in these Vessels, turns to a filthy Poyson, which by contagion Pollutes any other body. As concerning the Cure 'tis difficult in old Men, in all, if it be stopp'd without reason. For there is collected for the most part an impostumation within, sometimes about the stones in the Epididymis, sometimes in the Perinæum, which the Skin breaking pours forth the matter. We must abstain from things astringent, least it being retained doth corrode the Parts. Dryers and things that resist Putrefaction, as are, Sorrel, Treacle, Mithridate, and those things which are dedicated to the French Fox, do good.



Title, XI. Of the Diseases of the genital parts in Women.

Chap. I. Of the Diseases of the Neck of the womb.

Article, 1. Of a Tentigo and Cauda.

THE Diseases of the Womb are either of the Privities or Neck of the Womb, or of the womb it self. To those belong Tentigo, Cauda, Straitness, pustles, condylomato, Hemorrhoids, and Ulcers.

1. A Tentigo or great bit, and the womans Prick, is the growing of the Clitoris into too great a bulk.

The Subject is the Clitoris, or that Nervous flesh, hard, which in the Neck of the Womb the Joynt wings of the Privities do embrace, and at the Top of which, that is, the which

swells in desires of Venery.

This manifest affect needs no SIGNS; sometimes the bulk is so great, that it hangs forth through the cleft of the Privity as thick as a goose Neck, and resembles a mans Yard, they have too great desire of Copulation.

The CAUSE is too great an Afflux either of an Humor, or nourishment, by reason of its Laxness which is induced by often touching, and 'tis wont to cause lust at the least rubbing of the Cloathes.

The CURE respects. 1. *The abatement of blood*, and the bringing forth of other Humors, for which ends serve a most slender and cooling Diet, and discutives, especially the leaves of *the lentisk and Olive*. 2. *The taking away of the same Excrescency*, where first must be applied the gentler causticks, *As Alum, Unguentum Egyptiacum*, the lie of which Soap is wont to be made boyled with Roman Vitriol, adding towards the end a little Opium, and make Trochiskes of them, with which powder the flesh must be strowed over; at last the flesh must be cut off, either by Ligature, or Section, having a care of an Inflammation.

II. *A Gauda is a certain fleshy substance arising from the Mouth of the Womb, which fills up the womens Privity, and sometimes hangs forth like a Taile.*

The SIGNS and CAUSES are the same, as in a Tentigo, only that Women fear Copulation. The CURE is also the same if it must be cut off, it must be done either with a Horse Hair, or a silken thred dypt in sublimate water, or by Iron.

Article, II. Of the straitness of the Neck of the womb.

The straitness of the Neck of the womb, is either a stopping of the same, or of the Orifice of the womb, either by compression, or a growing together.

The SIGNS are, the Flux of the Courses denied, in them in whom they were wont to flow through the Neck, a sense of pain with a weight.

The CAUSE is either *natural*, when it affects from the birch, or *accidental*, of which in the Differences.

The CURE varies according to the Nature of the Differences.

The Differences are taken from the Part, and the Causes.

I. One is of *the outward Orifice*, which is called of the Pudendum, in which the Courses, which flow both by the neck and by the womb, are disappointed, there can be neither Copulation nor Conception, because neither the seed nor the man is received.

Another of *the inward*, which is called the Orifice of the Womb, in which the seed received presently flows forth again, conception can in on wise be.

II. One is by way of *Compression*, which is Caused, 1. By a Fat Caule lying on the mouth of the womb. 2. By a stradling of the Thighs. 3. By a stone in the bladder. 4. By a Tumor in the right Gut, of which in their place.

Another is by way of *growing*, which is caused. 1. *Either from the birth*, and *then* either *flesh* stops it, which is red to sight, soft to touch; or a *Membrane*, which is white to sight, hard to the touch. *In the Cure*. 1. The Part being moistned with warm Fomentations, it must be cut streight up taking Care that the Neck of the Bladder be not hurt. 2. The humor must be drawn forth, and a tent must be applyed dypt in a suppurating Medicine. 3. And astringent powder must be had in readyness for fear of a Flux of blood. 4. The following daies the place must be walht with honey & water, and we must act with things that Cicatrize. 2. *Or after the birth*, chiefly from an *Ulcer*, and *then*, either the sides of the Neck are grown together, in which case we must use incision but very warily; or there is a Callous substance which first must be cut off with a Pen Knife, or a Spongy and Luxuriant flesh, in which first of al we must use dryers and discutives as brithwort, Frankincense, Myrrh, Mastick; afterwards we must apply corrosives without pain, at last we must cut it.

Article, III. Of the pustles, Condylomata, and Hemorrhoids of the womb.

Pustles of the womb are, little bunchings arising in the neck of the womb, which by their Acrimony do Cause itching and pain.

The SIGNS are, Itching, Pain, a falling down of Scales like flower, to which we must add a *Speculum Matricis*, that the affect may be the better discovered.

The

The Cause is cholerick, sharp, adust, and thick humors, which emptied into moist and loose places do insinuate and immerse themselves in them.

The CURE respects the causes, universals being premised, where amongst preparatives prevaile syrup of *Funitory*, of *succory* with the decoction of hops; topicks discussing and mitigating the humor, especially baths and halfe baths, which must be followed with washing the part with wine and niter. But these must be often repeated.

They are divided into *benigne* and *maligne* or venereal, which are stubborn and contagious, they ought to be washt with the water made of aloes the quantity of one vetch, flower of brasse the quantity of half a vetch flower of brasse the quantity of half a vetch powder'd and mixt with white wine one ounce; plantane water, and of rose heads each one ounce, and kept in a wide mouthed glass.

II. *Condylomata*, are swellings of wrinkles in the neck of the womb with heat and paine.

There is no need of *Signes*, because they appeare to the eyes, oftentimes if there be many they resemble a smal bunch of grapes. The wrinkles hang forth like knobbs, which appear in the fist clutch'd. But they swell more when the courses flow.

The CAUSE is Thick and Adust humors.

The Cure in general respects the taking away of the causes and repercussion and drying.

As concerning the Differences.

Some are with an inflammation, in which the pain and heat is greater, the condyloma is hard. In the Cure we must act with anodyne halfe baths, and perfusions.

Others without an inflammation, which if they be new we must repel and dry; if cold and inveterate, we must first mollifie; then digest and dry. Here take place the powder of egg-shells burnt; the oymnt of trochisks of steele one dram reduced into powder, and mixt with oyl of roses and wax; adding halfe an ounce of the juice of mulein. The oymnt of the mad apple, concerning which see a *Castro*, l. 2. c. 25. de *Morb. Mulier*. If the condiloma yeild not to these medecines it must be cut off by an instrument and astringent powder strewed on.

III. The hemroids of the wombe, are smal swellings like unto the hemroids of the anus, raised in the neck of the wombe, by an afflux of *Feculent Blood*.

The Subject is the neck of the womb, for there they are, where the veins doe end, as in the hemroids of the anus: and these are lift up by an afflux.

The Signs are manifest; for they are discovered by the sight, if a speculum matricis be applied, the women looke pale, and are troubled with a weariness.

The Cause is *Feculent blood*, which when sometimes it flows to these veins not at its due time there stopping it becomes thicker, that it cannot penetrate the orifices.

The Cure is order'd. 1. By revulsion by opening a vein in the arme. 2. By derivation by opening another in the ankle.

They are divided twofould.

I. Some are painful, which by the paine it selfe are distinguisht from the courses, and are cured by things that mitigate the same, especially halfe baths, and the *Cataplasme* of a *Castro* l. 2. c. 26. de *Morb. Mulier*. And also with opium, which notwithstanding is safer in the hemroids of the anus. Other, without pains to which, what is, and shal be said ought to be applied.

II. Some are open, which flow either moderately, and then the business ought to be comitted to nature. Or too much, so that the strength is dejected, and there is feare least an evil habit of body be induced, and then for revulsion blood must be taken from a vein of the arme at several times. For purging, myrobalanes, camarinds, and rhubarb serve. At last we must act with things that stop blood.

Others are blind, from which no blood at all flows forth. The Cure is perfected, by emptying of blood, by emollicion and fomentation of the part, with mollesiers and things opening the mouthes of the veins, and discussing the matter. By artificially opening the same, concerning which things see the chapter of the hemroids of the anus.

Article. IV. Of the ulcers of the neck of the wombe.

There is no need to define what the ulcers of the neck of the wombe are.

Their Signs are, a pain and perpetual biting in the same place, which by little is increased, especially if any thing absterfiv be cast in; a flowing forth of sanious humors and matter by intervals, sometimes with blood, if the ulcer be great; or the courses flow. A pissing often and hot, if the orifice of the bladder be drawn into consent; a paine in the fore-

part of the head extending it selfe to the roots of the eyes, if the head. A smal feaver which in proceſs of time growes ſlowe, with often horrors, &c.

The CAUSES are al external and internal things, which by their acrimony can diſſolve the continuity in that part, of which in the differences.

The CURE is *difficult* becauſe it is in a place of exquisite ſence, moiſt, and which hath a content with many parts. 'Tis Ordered the ſame manner was ſpoke in general in the firſt book. To inhibit the paine, *Steeled milk* caſt in doth good. For drying, *baths*.

The Differences are various.

I. Some are from *external cauſes*, as medicines, hard labor, violent copulation. And others from *internal*, as are the ſecundine corrupted, the flux of blood retained, the flux of the womb, a virulent gonorrhœa, the french pox, Inflammation. Humors flowing thither, either from the whole, or a part, or generated there; al which muſt be attended in the cure.

II. Some are *ſuperficial*, from which little matter flows, and medicines may be layed upon them. Others *profound*, which are in a contrary way, and the medicines ought to be injected.

III. Some are *Milde* with little matter, thick, not ſtinking, in which both the gentler abſterſives, as honey of roſes with barley water, whey with ſugar or the decoction of lentils, and the more benigne aſtringents take place. Others *ſordid* with plenty of matter, and flowing forth with paine, in which we muſt act with ſtronger things. *The mundifyer of ſnallage* in Caſtro l. 2. c. 29. is here commended. Others are *eating* with a colored matter, green livid, ſtinking, flowing forth with paine, in which *aloes and wormwood* amongſt mundifiers are the cheiſe.

IV. Some are called *Rhagades*, which are ſmal and longe ulcers, eating the ſkin of the necke of the womb. *They are known* both by the paine and blood cauſed in copulation; and by ſight, if the neck be looked into; and they are like unto them, which in winter time are wont to riſe in our hands. *They ariſe* many waies. 1. *Externally*, from a painful labour, violent copulation, and then we muſt uſe an aſtringent glyſter. 2. *Internally* from an inflammation, condylomata, an afflux of ſharpe humors, which muſt firſt be taken away by purgers, before we come to topick medicines. There is commended for them, *the ſatt* which diſtills from wooden ſpoones uſed to boyl in

kitchins; if they be a little moved to the fire and burnt; and alſo the oyntment pomada. Others which *leave behinde them a Fyſtula*, which is voide of paine, unleſs it come to a nervous part, ſometimes it paſſes to the bladder and tight gut, and the excrements are caſt forth through it. If it be ancient it ought to be left to a palliative cure; in which at ſit ſeaſons the body is purged, but the callus which is alwaies joyn'd with it, if that be curable, after drying of the part, being moleſied by vulnerary potions, muſt be waſted, either by cutting or burning.

Of a cancer and gangrene, I meet with nothing ſingular. *That* is generated by menſtruous blood aduſt, and when ſcirrous tumors continue long. *This* in this place, ariſeth from an inflammation, cancer, and ulcers there il cured. For while theſe parts are moiſt and a-bound with excrements, they are eaſily corrupted and periſh.

Chap. 2. Of the diſeaſes of the womb.

Article, 1. Of the diſtemper of the womb.

The diſeaſes of the womb are, diſtemper, ſtraitneſs of the veſſels, inflation, inflammation, a ſcirbus, dropſy, falling down of the womb, wounds and ulcers.

The diſtemper of the womb is a ſwarving of the ſame from its natural temper, to a preternatural diſtemper, ariſing from external and internal cauſes.

'Tis divided twofold.

I. One is *hot*, which is known by a proceſs to venery, by the ſcarcenets, yellowneſs, blackneſs, aduſtion, acrimony of the courſes, and by their difficult and inordinate flux; whence in proceſs of yeares they becomie hypochondriacal, by the early growing of hair in the privities, redneſs of the face and dryneſs of lips, often pains of the head, and abundance of choleric humors in the body. *It ariſeth* either from the birth, from whence are viragos, and barrenneſs: or after the birth from external cauſes, amongſt which are the uſe of hot things, too much venery, medicines which do move the heat and blood to the womb. 'Tis cured, 1. *By the contrary diet*. 2. *By cooling medicines*, both internal and external, which are applied to the loins and back, but they muſt be moderate, leaſt the heat neceſſary for conception

ception be weakned, the cold substance of the womb because it is membranous, be violated; the vessels which ought to be open for flux of the courses, be condensed; and the nerves which are in the loins and back, be hurt. 3. By *emptiers*, viz. Rhubarb, Syrup of roses solutive, manna &c. *The flowers of Vitriol of Venus & Mars*, from three grains to six grains; given in some Syrup is an appropriate purger for the womb.

Another is *cold*, more frequent than the hot, which is known from a less desire to venery, and the little pleasure in it, by the stopping, mucosity, flegmatickness of the courses, and their inordinate flux by reason of the plenty of the like humors collected in the womb; from whence is obstruction; by the plenty of wind in the womb, by the crudity and watrishness of the seed, from whence it flows without any pleasure; by the pale color of the face, and other things opposite to the former. It *ariseth* also from causes contrary to them, 'Tis cured, 1. *By a contrary dyet*, 2. *By hot medicines* applied to the womb, amongst which do excel inwardly, the *Roots* of Birthwort, avens, angelica, eringo; the *Leaves* of Mercury, balme, dittander of Candy, pennyroyal, Sage, Rosemary, mugwort. *The Flowers* of wal Flower, Marigold, Sage, Rosemary, burrage. *Spices*, Nutmeggs, Cubebs, Saffron, Cinnamon. *Of Compounds*, Oyl of Mace, Amber, Myrrh, Cinnamon, *Fecula* bryone, *Aqua vite* Mulierum. *The extract* of Zedoary. *Outwardly*; the same things reduced into their formes.

Another is *moist*, which for the most part is joined with a cold. It is known by the plenty, thinness and watrishness of the courses, the moisture of the privities by reason of the humidity of the excrements, and the passion of the Flux of the womb, even when the seed is voided, no delight in venery, and an aptness to miscarry when the young one grows bigg. It *ariseth* from the same causes as yet which is cold, and happens to them chiefly who lead an idle and sedentary life. 'Tis cured as the former, yet observe, that the fume of the *shaving of Ivory* and Sage boyled in wine and water conveyed through a pipe before supper, is commended. *Sulphurous baths* beare the palme away in outward things; we must have a care of astringent means, least they detain the excrementitious humors.

Another is *dry*, which is known by the scarceness of the seed and courses, slowness to venery, dryness of the mouth of the womb,

the color of the lower lip a blackish red, with continual clefts; It *ariseth* sometimes from the very birth, whence the patient hath a dry temper, and slender constitution of body. Sometimes by reason of age, whence they cease to breed. Sometimes from *diseases themselves*, viz. an inflammation &c. sometimes from *defect of blood* which ought to moisten it, either because 'tis not emptied by it, by reason of the straitness and obstruction of the veins, or because being emptied through the neck, it comes not to the bottom. 'Tis cured, 1. *By a contrary dyet*, in which too much labor, watchings, fasting, sadness are very much to be eschewed. 2. *By the use of moistners*, amongst which do excel, burrage, bugloss, mercury, Marsh-mallows, violets; amongst externals, baths of sweet water, and anointings with oyl of sweet almonds, white lillies, hens greale, the marrow of calves leggs &c. *The cure is difficult* if the dryness be of long continuance and heftical.

II. One is *simple*, to which belongs what hath been said before.

Another *compound*, most commonly cold and moist, which is known by the former things compared amongst themselves. It *ariseth* from flegmatick humors, whether derived from the whol, or produced by the whol. It is cured, 1. *By preparation* of the matter by hot hysterical means. 2. *By emptying*, and that universal of the whol body by things that purge flegme. *By particular* of the womb it felt; of which we must have the greatest care, if nothing proceed neither from the whol, nor the parts. And here pessaries do much; also sulphurous and drying baths by sweaters which are here very much commended: viz. with the decoction of Guajacum, china, sarsaparilla; lentisk wood &c. 3. *By a contrary dyet*.

Article, 2. Of the straitness of the vessels of the womb.

The straitness of the vessels of the womb, is an interception of the same from its causes.

The signs are both a retentioⁿ of the courses that they cannot flow, and an hindrance of conception, by reason the falling down of blood is intercepted.

The cause and cure shall be expounded in the differences.

'Tis divided twofold.

I. One is from external causes, as medicines and astringent baths, which is known by the relation of the lids. 'Tis easily cured, and we must

must act with moistners and mollesyers.

Another from internal, of which in the following difference.

II. One is from a Skarre, flesh, or membrane growing on the orifices of the vessels; or from a growing together of the mouths of the veins after a violent drawing forth of the sectandine, which is almost incurable, yet some tryal may be made with things mollesying.

Another from obstruction, which thick, vitious, and plenty of humors do cause, whether they flow thither from the rest of the body, the heat not being able to attenuate them; or be heaped up in the womb it self by reason of the weakness of heat in that. It is known by this, that there are present the signs of a cold distemper, a moisture like inivel sometimes flows forth from the womb. It is cured as other obstructions. Revulsion hath its place, if the matter flow thither. Amongst openers of obstructions are commended sharp and bitter medicines, that move the courtes, steeled wine, baths corrected with mollesyers and openers.

Another from compression, which is caused either by a tumor and feirtus, consisting in the womb or without it, and then the signs of a tumor are present. The evil is almost incurable, or by the too much fact of the neighboring parts; and then that is wholly manifest to the sence, we must act with things that do extenuate.

Article, 3. Of an inflation of the Womb,

An inflation of the womb is a distension of the same by wind produced out of a cold, flegmatick and stultent matter, by default of a weak heat.

It is called also a windy Mola, by reason of the false hopes of a conception.

The signs are a distension of the womb consisting in the region of the belly, which is sometimes increased, sometimes diminisht; sometimes tis extended to the sides, sometimes to the navel, loins and midriffe. It is distinguisht from a dropsy by its lesser bulk, want of thirst, by the increasing and decreasing of the tumor, by a less washing of the upper parts. From a dropsy of the womb by the foregoing of causes generating wind, by a noise, less heaviness, greater distension, by feeling an extensive and pricking pain in the neighboring parts. From an inflammation of the guts, because here neither are pains, nor costivness of body; because the courtes are stoppt, the feet and hollow of the

eyes do swell, and color of the body is changed because the woman pants, is greived, and when she wakes out of her sleep, breaths with her neck upright. From a mola, by the want of heaviness and hardness in the belly with a weight, moving it self from side to side, when they move. From a conception by the sound, and increase and decrease of the tumor, by wanting of motion like to the moving of the infant, for if the belly be prest strongly, the wind being driven to the neighboring parts, a certaine beating motion is felt in the wholl belly.

The cause is exprest in the definition, the matter it self is either generated in the womb it self, Either by reason of the suppression of the courtes; or by interception of the purgation after a delivery; or proceeds from ellection where, either by the veins, or by the seed vessels. But the weakness of heat ariseth for the most part from the external aire stopping by its coldness those impurities in women lying in, which seek a passage forth; from hard labor, abortion, stoppage of the courtes, &c.

The cure if you consider the method, differs not from the cure of other inflammations, so we have respect to the part. Observe that amongst purgers, Species biera and diaphenicon with castor, are commended. For suffumigation, Nutmeg, of which Hartman in his chymiaty; for plaisters, the plaister of bay berries with treacle; for drinks, nutmeg bruited, boyled with the roots of feverfew and drank with six ounces of wine, two drams of Sugar.

The Differences are taken from the part it self.

One is when the wind is in the cavity, and then the mouth of the womb is so closed up, that none of it can get forth, when either the woman is moved or her belly prest with the hand, a sound and noise is perceived. But that it may be contained in the cavity is certain, both because the womb may be distended, though it be thick, as in conception, and be retained there as in a mola; and because the altering and retentive faculties being never idle, do change the diseased seed into wind.

Another, when tis in the coats of the same, and then the mouth of the womb may be open, by reason that the winde is concluded in a narrow place, the sound goes forth and the pains are greater and extended further: the evil is more difficult to cure, than that in the cavity.

Article.

Article, IV. Of an inflammation of the womb.

An inflammation of the womb is a tumor of the same from the putrefaction of blood fallen into its substance, troublesom with many symptoms, and sometimes turning to a scirrhus, sometimes to an impostumation.

The signs, are various, the tumor it self appears in the region of the womb, with a heat and pain, a shutting up of the womb, drawing of it towards the inward parts: but the whol neck of it appears ruddy, little veins swelling every where with blood like to a spiders webb. There is a difficulty of breathing, which shew a pleuresy, because the outward coat of the womb being extended which ariseth from the peritoneum and is fastened to it, those parts also to which it coheres, are distended. The excrements of the belly and bladder, by reason of the heat and dryness of the belly, and compression of the passages, are detained. The bulk of the belly sometimes appears empty, and the belly is filled with water, and the navil struts forth, and the mouth is slender, and of a suddain a few and evil courses follow. A continual and burning Feaver afflicts, by reason of the consent of the womb with the heart by arteries and great vessels, sometimes a lypirias by the motion of the humors towards the inward parts. There is a pain of the breasts with an inflation of them by reason of the consent of the groins, the hipps, the midrife, the cannel bones, the forepart of the head which is extended to the roots of the eyes; and it ariseth from vapors of blood putrefying, carried up to the head by the arteries, which run through the neck from both parts of that called the infundibulum into the fore part of the head.

The cause is blood, which sometimes is pure, sometimes mixt with choler, sometimes dyed with black choler. It slides thither or slides forth for common causes, viz. the detaining of it in the time of the courses, or after a delivery by the occurison of the cold air. 'Tis attracted by heat or pain which is caused, either by abortion, hard labor, violent drawing forth of the secundine, long walking when the courses are at hand, or by a troublesom carrying, if the young one be either great, or ill placed.

The cure is difficult, especially if the whol womb be possest or suppurated; for a sordid ulcer arising from thence, doth at length kill the patient with a slow Feaver. None at all, if

there be an erysipelas, because the young one it self dies by reason of the exceeding heat, whence follows abortion which kills the mother. If it turne to a deadly gangreen. 'Tis cured as in other inflammations, where note that for revulsion we must not open a veine in the leggs, when as these veins draw the blood to the womb, but in the arme, when as the blood flows from the liver, and the veins adjacent to it. For derivation, a veine in the ham may be opened, unless the patient be great with child, least abortion be caused. Topicks ought to be applyed cooling and moistning without any astringtion. 'Tis thought that the decoction of moiber of time prepared with steeled water, and outwardly applyed with sponges, doth stop it by a certain propriety.

The Differences are taken from the part it self.

I. One is of the whol womb, in which the symptoms afore mentiond do evidently afflict, and few indeed do scape. Another is of the other side, in which the heat passes to the hipp, by reason of the ligaments of the womb which are carried thither, the legg of the same side is hardly moved, the groins of that place are inflamed.

II. One is of the binder part, in which the belly is bound, the paine doth more afflict the loins and backbone. Another of the fore part, in which because it coheres to the bladder, the urine is stoppt or made with difficulty, the pain goes more towards the pubes. Another of its bottom, in which the lower part of the belly is so pained, that it cannot endure to be touched, and the pain is extended more to the navil.

III. There is one which turns to a scirrhus, in which all things become milder, a weight and heaviness is felt in the neighboring parts, the evil is of long continuance, and is often terminated in a droply of the womb. Another to an impostumation, in which all things are increased, til suppuration is made: horrors without order invade them for the most part about the evening; the impostumation being broke (but it breaks either into the cavity of the womb, which is safer, or 'tis poured Forth into other parts) sometimes the urine, sometimes the belly is stoppt, with a swelling of the pubes, and the sense of somthing waving.

Article. 5. Of a scirrhus of the womb.

A scirrhus of the womb is a hard swelling of
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the same, and resisting without pain, produced from a thick, earthy, and feculent humor.

The SIGNS are besides other general ones, to wit the Courses at the beginning are supprest, or flow too little; the evil increaseth, there is a great flux of blood by intervals, either the Mouths of the Veins being opened more than is fit, or the Womb not being able either to receive or retain the accustomed quantity of blood. 'Tis distinguished from a Mola, because in this if the Courses flow, they flow disorderly, and the Breasts also swell with Milk, which in a Scirrus are extenuated, &c.

The CAUSE is an earthy and feculent humor, to wit a thick blood, sometimes flegmatick, sometimes Melancholical, which happens in the declining Age; and troubles them which have been sick of a Pica, Malacia, or bulimus; oftentimes from an inflammation ill cured, by reason of the too much use either of coolers, or discutives.

The CURE is difficult both because things dried a long time cannot be mollesied, and because the Native heat is exhausted in parts affected with a Scirrus, and because while the Humor is mollesied, it may easily turn to a Cancer by taking putrefaction. The proceedings of the cure differs not from others.

'Tis divided in respect to the part affected.

One is in the substance it self, in which the Womb lies upon the Hip and back, and there causeth a pain. Another in the Neck, which is discovered by the touch of the finger, 'tis easier cured than the former. If it be in the upper part of the Neck; the Woman is hurt in Copulation, and the bladder is prest by the Tumor, if it be in the lower part, the right Gut is offended.

Article, VI. Of a Dropsie of the Womb.

A Dropsie of the Womb is an impotency of the same from water collected in it, either by its own fault, or the fault of other Parts.

The SIGNS are a loose swelling of the lower part of the belly, extended according to the figure of the Womb a scarceness and evilness of the Courses, because they are like to the washings of flesh, their failing before the time, the thinness and moisture of the mouth

of the Womb, softness of the Breasts, and want of milk, a rigour and oftentimes a Fever. 'Tis distinguished from an Inflammation by want of a Fever, and by its softness, by other Symptomes, of which formerly. From an inflation, by defect of distension and noise. From a Mola, because in this a greater weight is felt in the bottom of the belly, the breasts at the time of the birth approaching do swell. From a Conception because in a Dropsie the Tumor of the Womb is extended according to the largeness of the womb and belly, in conception 'tis pointed. In women with Child the Courses do not flow, here a certain bloody Humor, evil flows forth observing no order, and is quickly stopt. From a Dropsie of the Belly, by the Patients color in the Face, unless the Liver be affected, by want of thirst, by the ascent of the Tumor from the lower part to the upper.

The CAUSE is the water there, either by the fault of the Spleen or Liver, of which consult with their proper Chapters; or by the weakness of the Womb it self, by reason of which, it doth neither concoct well, nor well expel its Excrements, the which is, either from often abortions, and hard labour. Or from too great a Flux of the Courses, dissipating its heat. Or from the suppression of them choaking up the same heat.

The CURE requires the bringing forth of the water, and strengthening of the Womb, having respect to the Causes, Hartman, commends Antimonial Pills.

The Difference is taken from the Part.

One is when the water is collected in its Cavity, in which the Orifice of the womb if it be touched, is found shut up, the Tumor is great, and a certain waving is perceived if it follow conception, that yellowish and stinking water within two months for the most part kills the Young one, which is then cast forth with it. Another is when the water resides in its substance and little bladders growing to it, in which its Orifice being handled it appears contracted; Greater pains arise, the Cure becomes more difficult.

Article, VII. Of the falling down of the womb.

The falling down of the womb is a banging forth of the same out of the belly, proceeding

ceeding from a solution of the unity of its ligaments.

The general Signs are, a pain of the Loyns, of the lower part of the belly, of the Privities, of the *Os Sacrum*, to which the Womb is fastened, and this at the beginning. In process of time the pain is mitigated it being accustomed, and there is a troublesome sense only of a weight, and a hindrance in walking. The special Signs, vary according to the nature of a greater or lesser falling down. In that the Womb descends to the middle of the Hips and Knees, presents a Tumor like a Goose Egg, in whose lower part there appears a hollownes, in this a Tumor is perceived as it were of a skin retcht, and as it were a weight of a great Egg about the Privities.

The CAUSE is whatsoever can dissolve the unity of the ligaments; see in that which follows.

The CURE is difficult, if it be great, if it afflict those of full Age, if a Feaver, convulsion, or other Symptomes happen. Nay if it be, 'tis deadly in those that lie in, and sometimes by the alteration of the ambient Air, or violent repelling of it, 'tis corrupted, and taken with a gangreen. It consists. 1. In replacing of the Womb it self, where note, first of all the Inflammation must be stoppt, if there be any. If a Tumor imprest by the cold Air on the Womb do urge the part must first be fomented with a Decoction of Mallows, Marshmallows, chamemel flowers, Bay berries, &c. If there be wind or Excrements in the Guts we must premise a Clyster. Before it is replaced, it must be fomented, sprinkled, anoynted with things Agglutinative and astringent. A suffumigation of the Skin of a Sale Beale, dryed in the Smoak and powdered is commended. Seek for an astringent bath out of *Guilielmus Rondeletius*, his Cures. The manner of putting it up, see in Authors. 2. In retaining of it, and then the Woman must be placed in her bed bending downward, with her Thighes extended, so that one lie upon the other, the belly must be kept neither slow to stool, least in casting forth the ordure the Womb be forced down, nor loose, least the Membranes binding the Womb be relaxt. Agglutinative and astringent Medicines must be applyed. To this end serve, Pessaries, Fomentations, injections by a Syringe, and other things. But have a care you stop not the Courses with them.

The Differences are taken from the Causes.

I. One is by reason of the Laxness of the ligaments, of which it hath four; which is known by this, that 'tis generated by degrees, and afflicts with less pain. It ariseth either from hard labor, burthensome carrying of the young, or from the afflux of a Flegmatick matter. 'Tis Cured by emptying of the Humors, by the use of things astringent & strengthening, as are the Decoction of Oake moss, Harts horn, Bay Leaves, an astringent Plaster. A Loadstone prepared and applyed.

Another is from the breaking of the Ligaments, which is known by this, that the evil ariseth of a suddain, afflicts with greater pain, & sometimes is followed with a flux of blood. It ariseth either from the Heavy carriage of the young one, or from hard labor, or from abortion, or from a violent drawing forth of the Secundine.

Another from the Corrosion of the ligaments, and then there are signs of an Ulcer, some matter flows out.

Article, VIII. Of the ascent of the womb, its wounds and Ulcers.

That the womb may ascend out of its place towards the upper Parts as high as the stomach, is the Opinion of some, but false. For. 1. 'Tis so tied with four ligaments, that it cannot be moved upwards at all. 2. Although it have a natural motion by fibres, yet because 'tis tied to the right Gut and Privities, if it had an Animal motion, those parts also must necessarily be distended. 3. Although it swel with wind as was said formerly, yet it follows not from thence, that 'tis moved upwards. But that Women sometimes do feel a body and a Globe as it were running about the Region of the Navel, we must say, 'tis rather the Testicles and that blind Vessel, than the Womb it self. The Cause of this shall be explained in the suffocation of the Womb.

II. Concerning wounds of the womb, note, 1. That the Womb is hardly wounded, because 'tis on every side guarded with bones. 2. If it be wounded, 'tis known by the Situation, pain and matter that flows forth. 3. That it may be cured, as appears by the Cesarean birth, but 'tis dangerous by reason of the consent of the part with other members. 4. Or it happens on the bottome of the womb, and then that pain is less, and easier Cured, or on the Neck, and then the pain is greater and har-

der to be Cured, because that is more membranous and continually abounds with moisture.

III. Concerning *Ulcers* we meet with nothing of worth, which hath not been touched on formerly, unless perhaps we may add, that it doth sometimes so Putrefie, that it must be cut out, and falls away the woman surviving. For consolidation do serve, *the Balsam of sulphur, and the Plaister of the same*, (concerning which see *Hartmans Chymiatry* in the Chapter of a Consumption.)

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius Practice of Physick*, and his *Observations*; and the *London Dispensatory*. Al of the last Editions, Englished by me.]



Title, XII. Of the Symptoms of the Womb.

Chap. I. Of the Common Symptoms.

Article, I. Of the weakness of the womb.

THe Symptoms of the Womb, are either common to Women in all states, or are, either more familiar to those that live out of wedlock: or proper to the married.

Those common are, a weakness of the womb, Pain, a stoppage of the Courses, a dropping of them, too great a flux, a difficulty of them, a discolouring, an inordinate flux, a womans flux, a gonorrhoea.

A weakness of the womb is a sluggishness or defect of the same, in performing its actions, induced by the fault of a distemper, occult qualities, and the native heat.

The SIGNS are, a languishing desire of venery, an inordinate flux of the Courses, when they are at hand, a pain in the loyns and pecten, little or no pleasure in copulation, often abortions, a breaking forth of wind from the womb. For the actions of the womb are, a desire of Venery, a voiding of menstruous blood at due times, the ejection of seed in the act of Venery, and the retaining of that received from the man, a keeping of the young one conceived to

the due time, and the exclusion of it when 'tis perfect into the world.

The Nature of the Causes shall be explained in the Differences.

The Cure must be directed against the Causes (of which there.)

The Differences are taken from the Causes.

One is from the distemper of the womb, which if it be Cold the womb cannot perfect a mean quantity of nourishment, therefore it heaps not up many Excrements. If moist, neither the blood, nor seed, nor young one are rightly contained. See the Cure above.

Another is from occult qualities, which the womb hath is apparent from hence, because it hath a singular Sympathy and antipathy with divers things; desires mans seed, is delighted with sweet things, &c. And then the affect riseth from no evident Cause. There is found no excess of moisture or coldness. In the cure Medicines must be applied that are proper by their whol substance.

Another is from the imate heat, either choaked, or dissipated, and then the affect is dangerous, because the heat is difficultly renewed. In the Cure we must act with restoratives, as are, Cinnamon, Nut-Megs, the Species Diaxyloaloes, Aromaticum Rosatum, &c.

Article, II. Of the Pain of the womb.

A Pain of the womb is a sad sense of the same proceeding from a solution of continuity induced by its Causes.

There is no need of Signs when the Woman her self makes known the pain. It affects both Women that are free, and great with Child, and past labour. It torments as pains of the collick do in the lower belly, whenas the ligaments of the Womb are carried to the Hips and Loynes, so far also it extends it self.

The Cause is whatsoever can dissolve continuity.

The Cure respects, 1. The mitigation of pain by anodynes. 2. The removal of the Cause, of which in the Differences.

The Differences are taken from the Causes.

I. One is from corrosion, which chiefly happens in Ulcers, the Womans flux, vitious Courtes

Courses, &c. It offends most of al the Neck of the Womb. *The Cure* must be directed against those affects.

Another from *dysentia*, which is caused.
 1. *By a clot of Blood*, sticking in the Cavity of the Womb, and then a plentiful flux of Blood preceded from the womb, the pain is fixt, and is perceived most of al about the Orifice of the womb, when as Nature by the continual endeavoring to expel it doth draw the right Gut and bladder into consent, 'tis joyned with a tenasmus and often pilling. *In the Cure* we must respect, *the dissolving of the clot*, for which Treacle with Wine is commended, and the emptying of it, and if hath stayed long there *the Malignity of it*. 2. *By Menstruous blood*, when either the Vessels are not wide enough, or that is too thick; which also may happen from cold drink, especially if the woman were hot after exercise, and then the Causes went before which occasioned it, there are signs of the Courses suppress'd or not flowing rightly. *The cure* must be directed to the same. 3. *By vitious Humors*, sticking in the Cavity or Vessels of the womb; and then we must act with emptyers and preparatives. 4. *By wind* which ariseth from the boyling of the vitious Humors. Which sometimes copulation causeth. And then emptying must be ordered, we must act with things that disscuss wind, of which in the Chollick. 5. *By an inflammation of the womb*, of which formerly. 6. *By seed retained and corrupted*, and then we must look to the suffocation of the womb.

Article, III. Of the suppression of the Courses.

A suppression of the Courses is a retention of the menstruous blood, by reason of the streitness of the passages, or the fault of the blood.

The SIGNS are afforded from the relation of the woman her self, but if they wil not consent, *In Virgins* 'tis known by this, that the blood stop'd doth wander up and down in the Veins, and cause obstructions, changes the colour of the body, induceth a Fever, &c. *In women* that 'tis carried to the womb and infers Diseases of the womb. 'Tis distinguish'd from the retention in *childing*, because they with Child are little changed in the affections of their mind, they retain the Native color of their body, they find the Symptoms dayly more mild, they perceive the motion and situation of the infant the third month. They have the mouth of their womb shut up and hard.

The CAUSES are a streightness of the veins, and the fault of the blood, of which in the differences shal be treated more at large.

The Cure must be hastened because that suppression doth produce many diseases, as a fever, a leucophlegmatick, a dropsie, vomiting of blood, &c. 'Tis difficult if it be of long continuance, if it hath exceeded the sixth month for the most part 'tis thought incurable, especially if it happen from a perversion of the neck of the womb, for then the woman swooneth, and vomits flegme, the parts of the belly and pecten are pained, the back bone, and a fever happens. The excrements of the belly and bladder are suppress'd, a weariness possesses the whole body by reason of the diffusion of the blood retained through the whole, it most of al detains the thighs and hips by reason of the consent of the veins of these parts with the veins of the womb. 'Tis of good success, if it be emptied through other places, so it be not through the bladder, because the blood doth clot most of al in that. *It respects*. 1. *Bleeding*, for the blood which stops every month, is heaped up in the body, and sticking in the veins it must be recalled to the wombe. Concerning this note a vein must be opened in the ancle, because, so both the quantity of the blood is diminish'd, and its motion to the wombe is procur'd. If it must be repeated, one day blood must be taken from one leg, the next from the other. That which is ordered from emptying, ought to be opened at the beginning, that which is opened in the ham or ancle, after purging must be done three, four, or five dayes before the time of the accustomed evacuation. Cupping-glasses which are deputies of bleeding, must first of al be applied to the remoter places, viz. the thighs, then to the neerer, to wit the hips. Hither belong ligatures, frictions, the time of the courses being at hand, after emptying of the whole body. 2. *The preparation of the matter*, and for this serves in flegmatick bodies, *the decoction of guajacum with dittander of caudy* without provoking of sweat. 3. *Emptying*, which must be ordered at times, that the matter may be emptied by little and little. Amongst *evacuating medicines* are commended, *agarick, Galens biera with castor, aloes with the juice of savin*. Pills made of *aloe socotorina three drams; the best myrrb one scruple; extract of callamus aromaticus, carduus benedictus, saffron, of each three grains; of the rootes of gentian, dittander, each five grains, with syrup of bay berries, and given one scruple*

ple weight in the evening before supper. 4. *Opening obstructions* by those things that move the courses, the cheife are inwardly given, the decoction of rosemary with the flower of wal flower in wine. *Zacutus his chalybeate wine* l. 9. c. 19. his water in the same place; *Pennsylvanial water twice distilled with cinnamon water.* The extract of Zedoary, angelica, castor. The sexula of bryony, the earth which is found in iron mines given in the same quantity, order, and forme, as steels. The spirit of tartar, Hartmans lozenges of Crocus martis. Outwardly, *Zacutus his oymment of steel* l. 3. histor. p. 52. the fat of an egle, of a snake with the distilled oyl of lavin. A suffumigation of the residue of *Pegulus antimonii*, of which in *Hartman*. 5. A discussion of the remainders by sweaters, viz. with a draught of *Serapian's milium solis* in his pharmaco. restituta. Or with a chalybeate decoction with spirit of tartar, the juice of elder, &c.

The Differences are fetched from the Causes.

I. One is from the obstruction of the veins of the womb, which is caused by cold and thick blood, viscus and thick humors mixt with the blood; proceeding either from a hot distemper of the womb, which dissipates the subtil and sharp humors, leaves the thick and earthy parts; or from a cold constitution of the liver and spleen; or from the like nourishments, especially if in the time of the menstruous flux they be dissipated, when the force of the blood is greater; and then the time of the purgation being at hand, pains are felt in the loins and neighboring parts, if any thing flows forth, 'tis mucous, somewhat white, and somewhat black: there is a dulness in the whole body, with a white colour, a rare pulse and crude urines.

Let the Cure be fetched from what hath been said before.

Another from compression, which is either from external causes, as the northern air, staying in cold water, and then the relation of the patient wil unfold it. The blood must be drawne to the lower parts by frictions, bandages, baths. Or from internal causes, to wit the fat of the womb, or tumors of the neighboring parts, and then, the tumor must be taken away with convenient remedies. Things that move the courses have no place here.

Another is from a constipation whiles the substance of the womb itself is hard, which is

either from the first birth, and then 'tis not easily taken away; or after the birth, from a cold and dry distemper; of which more fully.

Another from a growing together, which is caused. 1. By a scar left after an ulcer. 2. By flesh or a membran growing over the vessels of the womb. 3. By often abortion, after which these veins to which the secundine adheres, doe so grow together, that afterwards they cannot be opened.

II. One is from a defect of blood, which either is not generated, either by reason of external causes, viz. hunger, too much evacuation, fluxes, &c. or of internal, as a cold confluxion of the principal parts, old age, feavers. Or 'tis converted to other uses, as before ripe age into the augmentation of the body, in women with childe to the nourishment of the young one, in those that give suck into milk, in fat folkes into fat. Or 'tis wasted, either by reason of external causes, to wit, exercise, too much labour, frights, sadness, baths, hot houles, which by provoking plentiful sweats, do both carry the blood to the circumference of the body, and waste its ferous part, which gives fluxibility to it: or internal, as are hot and dry diseases, too great evacuations made by other parts, &c.

Another from the dryness of the blood, which is caused by adustion, when in the winter time women put light coales under their lower belly to drive away the cold, and then we must act with coolers and moistness.

Article. IV. Of a dropping, and difficulty of the courses.

The dropping of the courses is a breaking forth of the menstruous blood either for many dayes, or continually, yet made by drops.

There is no need of Signs when the fault is made known by the relation of the woman.

The Cause consists either in things external, or in the blood, or in the vessels.

The Cure follows the Nature of the Causes.

The Difference is taken from the causes.

One is from external causes; exercise, hot medicines, and other things that diffuse the blood and open the passages; and then there is a greater pouring forth of blood.

Another is from the faculty of the blood, the waies not being open enough, and then it happens with pain, in the cure opening a vein in

in the arm takes place. Purging by little and little ought to be urged.

Another is from the weakness of the retentive faculty, there coming together a plenty of blood, a thinness and tenacity; and then no pain urger. We must act with medicines that strengthen the womb with astringent and dryness.

II. A difficulty of the courses is a flowing of them with pain and trouble, and grievous symptoms, by the default of the veins or blood.

The signs are taken from the relation of the patient; those pains are, of the head, stomach, loins and lower belly. The flux is either altogether, or only by the way of dropping, and sometimes when the courses are at hand, sometimes when they flow, the symptoms happen, and they do more afflict virgins and the barren, because the veins of their wombes are less open, than those that have brought forth, because their veins after breeding are dilated.

We shall treat of the causes in the differences.

The cure respects, 1. The Symptoms, which must be mitigated, 2. The causes, which must be taken away.

The difference is taken from the causes. One is from the firmness of the veins of which we have layd enough in the suppression of the courses.

Another from the faults of the blood, that is, 1. From the thickness and feculency of it, and then the blood whiles it is emptyed, grows into clots, the pains grow fiercer a long time before the evacuation by reason of the endeavors of the expulsive Faculty. The cure (premissing universals) is perfected by things attenuating, and that have power to diffuse it. 2. From the acrimony, proceeding from the mixture of sharp humors, and then the genital parts do itch, the nature of the blood voided and manner of the pain discovers the disease. We must act with things that qualify the acrimony, as are the Four greater salts, violets, the flowers of water lilies. 3. From the flatulency, and then the pain returns by interalls, and of a sad kind grows sharper, wanders up and down, wind being voided it ceases. It is cured by emptying of the matter, and discharging of wind.

Article. 5. Of the discolouring of the courses.

The discolouring of the courses is a declining of them, whenas they ought to be ruddy, to a paleness, whiteness, greeness, yellowness, or lividness, by default of blood.

The signs are afforded from beholding the blood it self, there is added a stinkingness, an inordinate evacuation, and oftentimes erratic Feavers, acute, horror, loathing of meat, pains of the stomach &c. concerning which see Hippocrates.

The cause is layd upon the sale of the blood, concerning which, as also of its causes, see in the differences.

The cure attends the causes, therefore according to the nature of them it varies.

It is divided twofold.

I. One is when the blood contracts a fault, either by reason of a distemper of the whole body, or of some principal part, respect to which must be had in the cure.

Another, when the blood is in fault, either because 'tis suppressed and retained, and then a stoppage of the courses went before, pains are felt in the breast, and strong pullations; if the habit be better, the courses break forth, and the blood flows forth, and a strong smelling matter, about the eight or ninth day. Or because 'tis polluted by the womb abounding with excrements, and then there are signs of a polluted womb.

Another when the blood is polluted by the mixture of excrementitious humors, and then if you consider the cure, we must prepare them, but so, that whenas thick humors do want attenuation, and things too much attenuating do melt the ferous humors, and move them to the womb, we must abstaine from the stronger, and beware of vinegar; we must empty &c.

II. One is when the courses decline to a whiteness, which ariseth either from stegm, of which howsoever it be there are signs of a weak stomach; or from matter, and then either ulcers are raised in the womb and barrenness follows, or the courses flow forth for seven or eight days and the woman is freed; or the same break forth at the parts above the groin without a tumor and about the hypochondries they come forth and the woman seldom survives. Or after a while a great tumor riseth upon the groin, ruddy without a head, because there the flesh is filled up, and 'tis hardly opened.

Another is when it declines to yellowness or greeness, which proceeds from choler.

Another, when to a lividness, which ariseth from melancholy.

Article,

Article 6. Of an inordinate flux of the courses.

An inordinate flux of the courses includes two things, to wit, an anticipation of the courses before the due time, and their continuance beyond the accustomed time.

The anticipation of the courses is divided according to the nature of the causes.

One is from external causes, viz. a fall, a blow, and other things that open the veins. See the cure below.

Another from the irritation of the expulsive faculty of the womb. 1. By the plenty of blood, which is known by this, that the blood is sent from the whole body to the womb, 'tis fluid and natural; there are signs of a plenty. 'Tis cured, by bleeding, if the plenty be great, by dyet and often exercise, if it be less. 2. By the thinness and acrimony of the blood, which is known by this, that the temper of the whole body is hot, a course of dyet generating such blood went before, the blood it self is dilute, discolored yellowish. 'Tis cured by emptyers, rhubarb especially; by qualesyers, of which formerly.

Another from the weak retentive faculty of the womb, which is known by this, that the vessels of the womb are loose, the habit of the body also is lax and moist. The cure forbids things too much astringent. Acid waters and baths that have the virtue of iron are commended.

II. The continuance of the courses beyond the accustomed time is divided also according to the nature of the causes.

One is which proceeds from the disappointment of the expulsive faculty, which is caused, I. By the scarcity of blood, which is known by this, that the woman finds no trouble by the protraction of her courses, & that too much exercise or slender dyet went before. 2. By the thickness of the blood, which is known by this, that there are signs of a cacochymie, the blood is whitish and viscous. In the cure we must purge before much blood be gathered together, attenuate when the menstruous purgation is over, calamint and mercury beare the palme; some days before the monthly purgation, we must open, scarification of the ankles takes place here.

Another which ariseth from the weakness of the expulsive faculty, which is induced, 1. By a cold distemper of the womb, of which formerly, 2. By a stupidity of the same, which is known by this, that there are present disease

causing stupidity, or too great use of coolers went before, after the due time of purgation, though there be present abundance of blood, no heaviness is perceived by the woman. In the cure we must have respect to the disease and its causes.

Article, 7. Of too much flowing of the courses.

The too much flowing of the courses is either a too plentiful or more continued purgation of them than is convenient, arising either from the fault of the blood, or of the womb, or of the veins.

There is not much need of signs, especially if there follow a want of appetite, crudety, an evil color of the face, a swelling of the feet and the rest of the body, an atrophy, cachexy &c.

The cause we have layd on the blood, the womb or the veins; but whence these are in fault, shal be explained in the differences.

The cure is difficult if it be of long continuance. None at all, if it happen to a woman growing old. It requires, 1. A restraint of them by revulsion, interception, thickning of the blood, stopping up the vessels by astringent means and other things. Yet it must be stopp'd by degrees, if there be a great plenty of blood, and it happen by way of crisis, the which falls out seldom. Here take place Heurnius his powder, of the seed of white henbane, white poppy, each one dram; of the bloodstone, red coral, each half a dram; campture half a scruple given half a dram weight. The powder of amber, sanguis draconis, the bloodstone, red coral, purslane seeds, each one dram; pomegranate flowers two scruples; easterne bole armenick two drams; given from one dram in three ounces of plantane water. Asses milk with steel. Ferdinandus his aqua mirabilis. histor. 33. The trochisks de carabe, the bones of a man strongly calcined. Zacutus his pills, l. 9. prax. histor. p. 185. His plaister there. The plaister of saxonia made of the sut of a chimney, volatil floure &c. a pessary made of beggs and asses dung with the juice of plantane and the mucilage of quinsie seeds. Specificks are, inwardly, Forestus his powder of a turtle, l. 28. obs. 10. The salt of the ashes of the same, the thin skin of geese feet dried and given from one dram, to two scruples. Outwardly, a girdle of the leaves of bastard black hellebore bruised. Of which Renealmus, obser. 21.

The differences are divers, which do chiefly respect the causes.

The

I. One is from blood, which, 1. either is derived from the bottom of the womb, in which the blood is blacker and for the most part clotted. Or from the neck, which is more ruddy and fluid. 2. 'Tis either plentiful, or sharp, or serous. Of which in the following difference.

Another from the moistness of the womb, of which see formerly.

Another from the fault of the Veins, concerning which consult with the third difference.

One is from plenty of blood, which is known by this, that either the vessels are opened or broke, in women especially, whose courses have stopt a long while, and afterwards do breake forth more plentifully. There are signs of a plenitude, the blood which comes forth, doth easily concrete into clots. In the Cure we must respect. 1. Bleeding, which if it be ordered for evacuation, it concerns a vein in the arme, the liver veine chiefly. If the strength be feeble, 'tis ordered in the salvatella of each hand, if it be for revulsion, it must be done at several times, because being repeated it revells more powerfully. 2. Cupping-glasses, which for evacuation may be applied to any part, if you except the lower, as to the back, shoulders, and that with scarification; for revulsion they ought to be set to the breasts without scarification, and upon a difficulty of breathing ensuing they must be removed. 3. Ligatures, frictions of the armes, &c.

Another from sharp blood, which is known by this, that there is a corrosion of the vessels joyned with it, there are signs of choler. The blood is detained and corrupted in the womb, it slides forth in greater quantity. In the Cure let purging be administered by syrup of roses solutive and leaves of fenny. See things that thicken it above mentioned.

Another from serous and watery blood, which is known by this, that either the liver is faulty by its weakness, or the kidneys by reason of their weakness do not attract the serum. The blood flows forth in lesse quantity and is not easily clotted: that which is flowed forth, if it be received on a linnen cloath, and dried in the shade, discovers it self by the colour. The Cure attends the diseases themselves.

III. One is from an Anastomosis, in the cure of which observe, that hot things ought to be mixt with cold least the veins be obstructed, the ventilation of heat be prohibited, and a fever induced; that pessaries may be applied if the opening be in the vessels of the neck, where oake leaves and unguentum Commitissæ

are good; that baths must not be used unless they be somewhat cold, or whose astringent power overcomes their heat.

Another is from a Diapedisis, which happens very rare, it presently requires astringent topicks.

Another from a Breaking, which happens either from a plenitude, or from causes that stir the blood, especially from hard labor, and premising the opening of a vein if they be need; 'tis cured by conglutinating medicines.

Another from a corrosion, which is known from hence, that little blood flows, sometimes purulent, sometimes serous. It arises from a sharp and corrupt blood, sometimes also from sharp medicines, amongst Astringents is commended the root of dropwort, or its decoction.

Article. VIII. Of the Womans flux and gonorrhœa.

The womans flux, which otherwise is expressed by the name of the whites, is an inordinate voiding from the womb, of an excrementitious humor by its whole nature differing from blood, collected by the fault either of the whole, or of some part.

'Tis called the *womans*, because it affects women, and truly virgins also, when as the causes take place in them, and there are examples of it. Yet more commonly those of riper age, especially if they be indewed with a moist and cold constitution, do lead a delicate and idle life, and feed upon cold and moist nourishments: old women also, and that unto death, by reason of the plenty of flegm, and the weakness of the concocting faculty.

There is no need to enquire the Signs, the affect is made known by the relation of the patient her self. It differs from a gonorrhœa, because in that the matter of the seed flows forth, whiter, thicker, and at longer intervals, and 'tis voided in lesse quantity. From a nocturnal pollution, because this is joyned with a phantise of a venereal business, and happens only in the sleep. From the discolored courses, because they observe their periods, though not always exactly; they do not happen to women with child, and those troubled with the suppression of the courses, they shew a red colour. From matter out of the ulcers of the womb, because then the signs of an ulcer stand forth, the matter it self is thicker and whiter. If it be sanious 'tis besmeared with blood, and voided with pain.

We have laid the Cause upon an Excrementitious Humor, which Sometimes is raised by purging Medicines, Nature being stirred up by their use to attempt excretions, sometimes by Baths, Nature casting off by this way those Excrements which could not be driven forth by sweat.

The cure must be hastened, for it makes women Barren for the most Part, unless perhaps it be emptied through the Vessels of the Neck of the womb, it casts the same into an Atrophy, consumption, Melancholy, Dropsie, Falling down of the womb, swoonings and Convulsions. Hence though at the beginning 'tis scarce Cured, yet afterwards 'tis more difficult. For the whole body accustoms itself to cast off the Excrements through that way, and the womb being rendered weaker collects Excrements. It varies according to the nature of the Causes.

The Differences are taken from the part that tends them, and the colour of the blood.

I. One is from the whole, which is known by this, that there are signs of a Cacoehymy in the whole body, the flux is more plentiful. In the Cure. 1. Bleeding must be shunned, both because the Humors ought not to be recalled into the Veins to pollute the blood, and because the strength is dejected by the long continuance of this affect, and the body wasted. 2. Discussion is very well performed by Decoctions of Guajacum, China, and lentisk wood, &c. 3. For drying, the Root of dropwort, is very much commended. For binding, the powder of mans bones, the ashes of Capons dung in rain water. Zacutus his Plaster. l. 9. c. 11. Prax. History, which ought to be applied to the Kidneys. 4. Sleeping on the back must be avoided, lest by the heat of the Loyns, the humors be carried towards the womb. 5. Frictions of the upper parts are good for averfion.

Another is from some part besides the womb, and then there are signs of the part affected, in the cure we must have regard unto it.

II. One is from the womb, which is known by this, that there are signs of the womb affected, the flux is not so plentiful. It arises from the distemper of it, of which in the Cure we must have a regard. Suffumigations of Frankincense, Labdanum, Mastick, Saunders are well applied; but from what Cause soever it ariseth, baths do most good.

Concerning a Gonorrhœa, if any thing

ought to be known, let it be sought from those things which are said concerning a mans gonorrhœa.

Chap. 2. Of the Symptomes more familiar to those that live out of Wedlock.

Article, I. Of the Virgins Disease.

THE Symptomes more familiar to those that live unmarried are, the Virgins disease, the suffocation of the womb, the madness of the womb, and the melancholy of women.

The Virgins disease (otherwise the white, the Virgins, the Pale, the Lovers Fever) is a change of the natural color in the Face into a greenish and pale, proceeding from the abundance of crude Humors.

'Tis called the Virgins, because it appertains most of all to Virgins, and truly to the Fairer, endued with a white colour, thence the Tincture from crude Humors is the easier.

The Face it self wil afford us the Signs, to which add other Symptomes, as the pain of the Head, sometimes madness, the Humors and Vapors being carried thither and mixt with Melancholy; a difficulty of breathing with a palpitation of the heart, if they stir, with a small and frequent pulse of the Arteries in the Neck, back, and Temples, by Reason of the lifting up of Vapors from the heating of the thick blood, inordinate and erratic Feavers by reason of the Putrefaction of the Humors, manifold affects of the Stomach, amongst which loathing of meat, by reason of the unhappy distribution of the Chyle. A Pica from the abundance of evil humors in the coats of the stomach. Vomiting from the great plenty of crude Humors, both a distension of the Hypochondries, from the reflux of the Menstruous blood to the greater Vessels and a rumbling from the tumultuation of wind. A swelling as well of the whole body with a laxness and softness from the plenty of the Humor, as either of the Eye-lids, especially in the morning after sleep, when in the night the heat hath raised more Vapors and serous Humors than could be dissolved; or of the Legs and Feet, especially about the Ankles from the abundance of serous Humors.

The

The CAUSE is the crudity and plenty of Humors, arising either from the suppression of the Courses, or from the Native straitness of the Vessels, or from that acquired by eating of wheat, Loom, Chalk, earth, Nut-Meg, drinking of Vineger, &c. Or from the obstruction of other bowels. For the Menstruous blood, the Passages not being open, doth regurgitate to the greater Veins and Bowels, obstructs the Vessels, and over whelms the heat. Hence ariseth evil concoction in the Bowels, and the Humors are carried to the habit of the body.

The CURE is accomplisht. 1. by *bleeding*, especially in the Ankle if the malady be new; and the blood is not turnd into another humor. It it ariseth from the Evacuation of blood suppressed. 2. By *Purging*, premising Preparatives. 3. By *opening obstructions*, in which we must have respect to al the bowels; the suppression of the Courses must most of al be mended. There are commended, *Steel prepared, Scorzonera Root, Bezoar Stone, Oyl of Crystals*, &c. In the diet Vineger must be voided.

Article, II. Of the Suffocation of the womb.

The Suffocation of the womb is a heap of Symptoms opposing sometimes the natural actions, sometimes the Animal, sometimes and more often the vital, by periods, joynd with a coldness of the whol Body, proceeding from a malignant Vapor raised from the womb.

'Tis called also the Suffocation of women, the strangling from the womb, the Hysterical passion, &c.

The SIGNS are either of that at hand, a weariness of the whol body, with a weakness of the Legs, a paleness of the Face with a sad look, a nauetousness which is seldome succeeded with vomiting, oftentimes a certain wearisomness, and loathing of meat, and that sometimes with a murmuring and rumbling of the belly, sometimes without these. Or of that present, in which a Vapor raised up to the heart, and stopping the vital spirits, a smal fainting away is Caused, the Pulse is changed a little, the body grows cold, the spirits recurring to the heart, fear and desperation moves the patient; the same thrust to the Head and Jaws, sometimes the Jaws are bound up, and the Patient seems to be suffocated. The motion of the

breast and Midriff is hindered the Animal spirits being stopt, and breathing is almost intercepted, the sick living in the mean while by Transpiration; sometimes a madness of the womb is added with prating, and fury, sometimes other kinds of madnes arise. Sometimes sleep and a drowtie Disease is induced, in which the woman falling as astonishd, lies without motion, without sense, with such smal breathing that she seems dead. Or of the fit declining, and then a certain Humor flows forth from the Privities, the Guts murmur; by and by the Eyes are lift up, the Cheeks grow red, sense and motion return. Sometimes a coldness at the time slides from the Head by the Neck into the shoulder and Arme, which makes motion difficult, but presently 'tis difficult. Yet al these Signs do not happen in al. There have been those who were troubled with continual laughing the Vapor insinuating it self into the Membranes of the Breast; there have been those who seemed to frame the hissing of Serpents, the croking of Crows, &c. According to the proportion of the passages and breath breaking forth. It differs from an Epilepsie, because in this the Convulsive motions are more universal, they have no remembrance of those things after the fits which happened to them in the fits, the Pulse is greater than before, a foam flows about their Mouth. From an Apoplexy, because in this the fit is suddain without any notice; a singular snoring afflicts them in breathing, there is so great a resolution of the Parts, that though they be prickt yet they do not feel. From a Syncope, because there are no presages in this of the fit to come, the pulse failes to the sense, cold sweats afflict, it vanisheth in a short time, when as the Hysterical passion lasts sometimes a day or two. From the dead, they are distinguished by Sneezing, Caused by Sneezers and other means.

The CAUSE is a malignant Vapor, thin and spirituous, in one moment penetrating the whol body, and raised from the matter corrupted after a peculiar manner in the womb, and stirred either of it self or by external things, as things sweet-smelling, fear, Anger; and ascending upwards not only by the Veins and Arteries, but also by occult passages. But what that is shal be said in the Differences.

The CURE is sometimes of doubtful hopes, If it long afflict old women, because it infers an impeachment of the strength, and shews a

plenty of humors. If it happen to breeding women, a hard labour or abortion going before; if it assaile great bellied women, because it strikes a feare of abortion; of better hopes, if breathing be not hurt too much, if the fits do not return often. *It respects.* 1. *The time of the fit, where care must be had.* 1. *To intercept it,* by binding of the belly about the navel with a girdle made of the skin of a hart kild in the act of copulation with the doe. 2. *To raise her by ligatures and painful Frictions,* by pulling off the hairs especially of the privities, by suffumigations made of *partridge feathers borser hoofs, an Eel skin.* By applying of *assaferida* oyl of tartar to the nose, &c. 3. *To reveal by ligatures & frictions of the lower parts,* glysters discussing wind, cupping-glasses without scarrification applyed with much flegm, first to the ankles and thighs, by and by to the groines, by putting up sweet things into the privities, as are oyl of Civit half a scruple; with oyl of nutmeg by expression one scruple. 5. *To discuss,* and that outwardly by oyl of white amber with the powder of walnut flowers. By extract of castor, of silver-wort. *Mynsichtus his specificum diajovis.* The same Authoer Theriaca mulierum. Hartmans essence *granorum Chamaeactes,* in pennyroyal water, Treacle water & others that are appropriate. Outwardly by putting into the navel *oleum Jovis,* the salt of the same described by *Crollius.* By plaisters made of the fat of a black cow fed with urine plants, clay boyld in butter, adding gum *tacamahach,* & *carama.* 2. *The time out of the fit, in which.* 1. *We must empty by Grulingius his extract of bryony,* of which in his cures, by Agricola his *flores virtioli Veneris et martis.* 2. *The womb must be strengibened by things internal and external that do resist the malignity also.* The facula of bryony is commended, Castor, &c. 3. *That diet in which odoriferous and sweet things are,* which are wont to move the womb, must be shunned. For preservation see *Zacutus his Hysterical Pills.* Prax. Hist. l. 9. c. 12.

The Difference is taken from the causes.

One is from the seed corrupted by the fault of the parts or humors mixt with it, and sending forth such a vapor, which is known by this, that the courtes are right in the patient. All the Symptoms are more vehement, the fit declining a humor like to seed flows forth of the privities. *This Cured* (universals premised) by emptying of the seed by glysters, and urine

pellarici; by prohibition of the same, by medicines diminishing the seed, or by slender diet.

Another from menstuous blood stopping, and therefore corrupt, which is known by this, that the menstuous blood is joyned with vitious humors, especially a melancholly one. The symptoms are milder, with the signs of a suppression. The Cure must be turned against the suppression of the courtes.

Another from vitious humors, concerning which consult with the chapter of the distemper of the womb.

Article. III. Of the madness of the womb, and Melancholly of Women.

The Madness of the womb is an immoderate desire of Venery, almost making women stark mad, arising from the plenty of seed, acrimony, and peculiar quallity of it.

The subject of this affect are, either well fleshed virgins, black, and having adust blood, or the youthful flourishing widows; or married women that are barren by the impotency of the husband.

The Signs are various, some wast away in sadness and silence suppressing their desire; others, reason being overcome do prate, are lascivious, break into anger, laughter, weeping, wanton and bawdy discourtes. Some freely prostitute themselves to men.

The Cause is the plenty, heat, and acrimony of the seed, which ariseth if you consider the internal causes, from the heat of the womb, the distemper of the stons especially, and spermatick vessels; hence many labor of an inflammation of the womb, and itching, which are not affected with this madness. If the external, from a diet generating plenty and acrimony of blood by a draught of hippocras, in which there was some *Borax,* &c. dissolved.

The Cure is accomplished. 1. *By bleeding* if blood do abound. 2. *By purging* if hot and adust humors be mixt with it. 3. *By alteration* by coolers, as are *Letice, Purslan, water-lilies, Ladies navel,* by things that act by an occult quallity, as are, *the chast tree, rue, hemp, Camphire, hemlock,* which are rather to be used in Nunneries.

The Melancholly of Women is a dotage with sadness, anxiety, weeping, or laughing by intervals, invading without a fever, arising from a melancholly vapor, darkning the animal spirits.

The

The SIGNS are various, the women are sad, complain of a griet at heart, yet are not able to express the cause of it. The Arteries about the Spleen and back do beat more vehemently than usual, a pain of the left side against the heart afflicts, sometimes seizing on the left breast, the Vapors from the intercostal Arteries being poured forth into those places, and pulling and distending the Membranes of the Breast: a dryness of the Jaws sometimes troubles them with a suffocation. But these symptoms affect by intervals, because the Vapor is dispersed, and the stirring of the blood in the Arteries cealeth.

The CURE respects. 1. *Bleeding*, which must be ordered at the beginning, if hot blood do urge it, 'tis to be admitted commonly in the Arme, if the Courtes be not stoppt, if otherwise, in the Ankle some daies before the flux; it is to be urged, sparingly if the evil be far gone. 2. *Preparation*, by those things, which alser the Melancholly Humor, and rejoyce the heart, as are the *Confection de Hyacintho and Alkermes*. 3. *Emptying*, by things that Purge Melancholly, with which, things proper for the womb must alwaies be mixt.

Chap. 3. Of the Symptomes proper to married women.

Article, I. Of the Symptomes about conception.

Point, 1. Of Barrenness.

THE Symptomes proper to married women, do respect, *Conception, going with Child, and the delivery*. The Symptomes about conception that meet us are, barrenness, and a mola.

Barrenness is an impotency to conceive, proceeding from the fault either of the Genitals, or of the Seed, or of the Womb, or of the menstruous blood.

There is no need of Signs, the Cause and Cure vary according to the Nature of the differences.

The Differences are taken from the Causes and Parts.

I. One is by fault of the genital parts, whether it be a Closure of the Womb from the

birth, which may be artificially cleft; or a tender Constitution, either by reason of the Age or structure, for which a mans Yard is not admitted; or Tumors, Ulcers, and excrescencies in the Neck to which the Cure must be directed; and this is not properly called barrenness.

Another by the fault of the Seed, of which shall be treated in the following Difference.

Another by the fault of the womb, of which we wil treat in the chud Difference.

Another by the fault of menstruous Blood, when either that is wanting, which happens either the womb being covered with a star, or the blood turning into Fat; or 'tis too Copious, that the Seed is overwhelmed and suffocated.

II. One is from the defect and unfruitfulness of the Seed, which ariseth. 1. By reason of tender Age, or too old. 2. by reason of the distemper of the Vessels dedicated to generate and contain the seed, and then the Woman in Copulation perceives none, or little and short Pleasure. There are Signs of the womb affected, or the whol body, or some member hath a Vicious Constitution. The Cure must be turned against the distemper of the womb. 3. By reason of the Evil Conformation of the same Vessels.

Another is from want of a Proportion between the mans and womans Seed, which consists between manifest and occult qualities; but chiefly it ariseth. 1. From medicines that extinguish Seed, as are a Goats commodity, Mint, Rue, Camphure, which either the patient, or standers by wil make known. 2. From Incantments, and then the man cannot Copulate with his own wife, he can with others, he hath a desire to couple with his own, and if he do couple with her he cannot send forth his Seed. In the Cure is commended a draught of cold water fallen from the mouth of a stone Horse drinking in a Current, and suddenly received in a Vessel.

III. One is when the womb doth not attract the Seed that is cast in, and that either by reason of a cold and moist distemper, of which formerly; or by reason of some Organical diseases and solution of Unity. Where note, that very often too much Fat, especially of the Gaul, doth comprets the mouth of the womb; that barrenness from Ulcers is hardly Cured; nay though a great Ulcer were Cured, yet that would remain by reason of the Skar left, for which the blood can neither adhere to the womb, nor flow thither.

Another is when the womb doth not retain the Seed cast in, and that, 1. Either by reason of a moist distemper, which is known by this, that the Fibres of the womb are Relaxt, that it cannot contract it self, the Seed by reason of its Mucousness cannot adhere to it. 'Tis retained for some few daies, then cast forth. The Cure must be turned against the distemper. 2. Or by reason of the thickness of the womb, for then the blood doth not slide thither, from which the Seed ought to be joynd to the womb, and take its increate. The Cure requires exenuation by a slender diet, exercise, purging, Sweating, and others. 3. Or by reason of its Slipperiness, and then a womans Flux or virulent Genorhea hath happened; the Seed conceived is extinguishd, and Rapt away. The cure must be fetcht from their places. 4. Or by reason of the gaping of its Orifice, and then either hard labor or abortion went before. The Fibers are so relaxt, that they cannot contract themselves. In the Cure amongst astringents, a Fomentation of the Leaves of Lentisk, Mirtle, &c. takes place. 5. Or by reason of a Cough, Sneezing, which happens after Copulation, &c. By which the Seed is shak'd forth.

Another is when the womb doth not alter the Seed injected, and that either by reason of a distemper, when the womb by an immoderate coldness grow thicker, the Orifices of the Vessels belonging to them are very streit and narrow, whence neither the Secundine can be knitted to the Mouths of the Vessels, neither doth the blood flow in sufficient quantity, which is Serous too; or by reason of organical diseases, as Tumors, Ulcers, &c.

Point, 2. Of a Mola.

A Mola is a mass without bones and bowels from an imperfect conception, generated by the fault both of the mans and womans seed, instead of a Young one.

The SIGNS before the fourth month are not so exact that it can be certainly known, in process of time 'tis discovered by four signs. 1. By motion, for that is trembling and panting, rival to a constriction and dilatation, and it falls down like a stone with an eminent fence of a weight upon that side the woman turns. 2. By the figure and bulk of the womb, For in that the Belly is lift up according to all dimensions, when in a true young one, 'tis principally raised towards the Navel, and is gently

stretched towards both sides. 3. By want of milk; for in a mola the breasts swell indeed, but there is produced in them only a certain crude matter, from the courses suppress'd tending to the breasts, which in process of time vanisheth, when in those with child milk begins to be generated about the fourth month. 4. By the Symptoms, which are diverse, as difficulty of breathing, pains of the back and groines &c.

The cause is the fault of the seed, both of the Males and Females jointly, when the formative faculty is weak, either of it self, or because 'tis overwhelmed with blood. Whence mola are wont to be made, if there be copulation when the courses are at hand, or flowing, or not wholly stop'd. And of the womans seed severally, joined with blood, and then there are mola altogether rude, and which being long exposed to the aite, being melted are dissolved into a watry substance. In virgins such a thing cannot happen, both because their weak seed wil not attract blood necessary to its conformation, and because the blood it self partly by its unaccustomedness, and the narrowness of the vessels of the womb in virgins doth not of its own accord flow thither. In the cure, 1. bleeding beares the palme, that the nourishment of the mola may be withdrawn, and it must be larger if the woman be plethorick, more sparingly if not so, in the ankle, or ham. 2. Strong and often repeated purging. 3. Opening of the courses. 4. Chyrurgery, of which see Authors. Prevention, requires. 1. That Copulation be not too often, especially in bodies not strong enough, by reason of the generation of weak seed. 2. That it happen not when the courses are at hand or flowing, or when the womb labors of a distemper.

See the Differences in physical observations, for this mass is not only without bones and bowels, but sometimes 'tis more membranous, viscus, fast together, not yeelding to iron. Sometimes it pretents a long forme, rhomboidal, &c. sometimes 'tis destitute of all life, sometimes it lives the life of a plant. Sometimes 'tis voided with a child, without one, after one, and sometimes a dysentery goes before the voiding of it.

Article, 2. Of the Symptoms of womens with child.

The symptoms of women with child are in a threefold Difference.

Some happen at the first time of their bearing

ing in the belly, and they are, 1. *A cramp*, troubling especially the leggs, which is taken away by anointing them by the fire with oyl of bays, putting on afterwards hot rowlers. 2. *The pain of the Sciatica*, with oyl of Venice turpentine anointed on drives away. 3. *Loathing of meat*, which ariseth from the suppression of the courtes, the better part of the blood going to the young one, the worse remaining in the veins, from whence by agitation vapors are sent to the mouth of the stomach with the humors, a vitious quality is imprinted on it, and which ceates of its own accord when the young one is grown greater. 4. *A Pica*, or a desire to absurd meats, for taking away of which serves, the water distilled in the month of May from vine leaves. 5. *A nauseousness and vomiting*, which if it be easy ought not to be stoppt, it difficult, 'tis not free from danger. 6. *Torments and pains of the belly*, which are raised by the wind from the humors about the womb, and sometimes do cast women into swooning fits. 7. *A looseness*, which must be timely remedied, least abortion follow. 8. *A pain in the teeth* from part of the sharper humor carried thither. 9. *A pain of the head and vertigo* from the vapors sent forth, distending and troubling it.

Others trouble in the middle months of their bearing, and are.

1. *A cough* from a sharp vapor, or the veins of the breast, which by reason of the concussion of the muscles of the belly, watchings, pain of the head, is dangerous. 2. *A palpitation of the heart*, and taintings, which if it arise from plenty of blood, is a forerunner of abortion, and is cured by bleeding. 3. *Pains of the loyns and hipps*, either from the blood supprest falling upon the vessels of those places, or from the child growing bigg. 4. *A flux of blood from the womb, nose, hemroids*, which is cauled. 1. *From a rupture of the vessels of the womb* by evident causes which are known from the relation of the patient, 2. *From plenty of blood*, and then the woman is endued with a good color, she beares the flux wel, there is less danger, if so be the flux be not too much, 3. *From the weakness of the young one*, not attracting the blood, and then for the most part, either the birth is protracted beyond the due time, or is difficult, or abortion follows; there are signs of the weakness of the child, that is, 1. *Either* the woman is troubled with a looseness of body, by which the nourishment is withdrawn from the young, or her courtes flow often when she is with child,

or the mother is often or long sick, whence ariseth a fault of the nourishment; or the breasts which were swelled full before, are extenuated, for want of nourishment; in the common veins of the womb and breasts, or the young one which already had began to move, or ought to move, either is not moved, or moves weakly. 4. *From evil humors* goading the expulsive Faculty; and then sharp things, coloured, stinking, flow forth with pain, there are signs of a cacochymy.

Others happen in the last months, as is, 1. *A stoppage of the urine*, which ariseth from a compression of the neck of the bladder by the womb (it happens chiefly when they stand) 2. *A hardness and slowness of the belly*, which ariseth either from a compression of the guts made by the young one it self, or by an extraction of the moisture caused by the same, in women that have a hot and dry liver and spleen 'tis dangerous, because by a violent straining to evacuate, all the parts in the belly being full, some damage may easily ensue. 3. *A tumor and inflation of the veins*, either in the leggs by reason of the weakness of the liver, of which in its place; or by the suppression of the more serous blood, and then the women with child for the most part bring forth girls. We must forbear from the cure, because the humor is emptyed with the after purgation after the delivery, unless walking be hindered: or in the hipps that they become as it were varicous, which proceeds from the same cause. 4. *Clefts of the skin of the belly* by reason of the distension especially at the first birth, which are prevented with the anointing of laxative limiments, as are marrowes, oyles. 5. *The effusion of water*, which in the time of bearing is collected between the membranes that involve the young one; which wants not danger, because both the young one perceives some trouble from thence, and a hard labor follows for want of moisture.

Article, 3. *Of the symptomes about the delivery.*

The symptomes that happen about the delivery, are also not a few.

1. *An untimely flux of blood before the birth*, whence is a weakness of strength and swoonings. In the cure of which emptyers must be shunned, the aire forbidden, cordials and strengthners must be given; when the mouth of the womb opens it self, the membrane must be broken, and the infant brought forth.

II. *Abortion*

II. *Abortion*, when the child is born before the lawful time of bringing forth, which is feared if the breasts be extenuated, because it is a sign that either the blood does fail in the veins common to the womb and breasts; or that by the violence of the young one or rupture of some vessels it doth rush to the womb. If plenty of milk flow from them. If the great bellied woman have often pains about the belly and loins which end to wards the pubes & os sacrum, with a certain endeavor to cast forth of her womb. If after them, blood either pure, or ichorous, or water flow forth. It ariseth in general from the fault of the expulsive faculty of the womb, which is irritated either by the young one, or by other diseases, by which also the retentive faculty of the same is wont to be weakened. In particular 'tis caused chiefly. 1. *From too much cold*, and then the pain which ariseth about the Region of the Kidneys descends to the lower part of the Belly, and afflicts like to Nephritical pains. See a Fomentation in *Ludovicus Burgesia*, p. 1. c. 6. 2. *From a sudden fright*, and then outwardly may be applyed the Fomentation even now mentioned; inwardly, a little Oxycrate. 3. *From a Swoning*, where the Confection of Alkermes, and *de Hyacintho*, take place. 4. *From Anger*. 5. *From a Flux*, and then drying Meats must be administr'd, the Patient must be kept in Bed, we must act with Cordials and Strengtheners.

III. *The Birth coming forth not Naturally*, where 'tis a common admonition, that the navel of the infant, what way soever it comes forth, be thrust back into the womb again. If it be difficult, and cannot be promoted otherwise, 'tis happily furthered by giving three grains of *Mercurius vite* in wine, as *Billichius* witnesseth in his observations.

III. *The stay of waters*, al other things being ready for the birth, and then the membranes must not be broken, least violence be offered either to the navel or some member; a fomentation ought to be ordered with warm water, which must be followed with a liniment of fresh butter.

V. *An immature falling down of the waters*, and then fresh butter is good amongst moistness, we must have a care of the outward air.

VI. *Collick pains*, which are taken away by giving oyl of sweet almonds with cinnamon water, or a carminative glyster following.

VII. *A weakness of strength by the birth*, and then may be administr'd, water of To-

phies, Harts-Horn, Confection of Alkermes, Cinnamon water.

VIII. *The slow coming forth of the secundines*, either because they are too thick and tenacious and stick close to the sides; or because they twel by the long labor of bringing forth; or because the Navel is either broke or cut off before the Secundine is come forth. There are commended the *Secundines Specifick*, the *Eyes of a hair taken in March*, of which in *Hartmans Chymistry*, &c. See *Burgesia*. l. 1. c. 14.

IX. *The Pains after birth*, by reason of the too great straitness of the vessels, which are prevented by giving of the Queens powder after the first birth, which is compounded of the greater comfrey, one dram; Peach Kernels, Nutmeg, of each two scruples; Amber Greeke, half a scruple; and one dram weight is given in broth if there be a Feaver, in wine, if not.

X. *Too great a flux of blood after the delivery*, either by reason of its plenty, or because she hath used hot things, or because of its thinness. In the cure take place, ligatures, a cloth dipt in Oxycrate, applyed to the Loyns and al the back bone, because there the Vena Cava Runs down. *Terra Cimolia* dissolved in Vinegar applyed to the same.

XI. *An insufficient Purgation*, by reason of the thickness of the blood, detained nine Months, induced by heat, which is known from hence, that it was more in the menstruous Flux. In the Cure takes place, the opening of the *Sapbena*, but not before the womb is restored to its place. The use of Syrup of *Maiden-Hair* with Hyssop water, Wormwood water, Suffumigations, Fomentations, &c. But if her Purgation were not more in the Flux of her Courses, nor she did not abound with blood, we must act by dyer, and meats of good juyce.

XII. *A Feaver*, which is, 1. *From the generation of milk*, which is free from danger; it must be committed to nature, observing a government in dyer, and sweats must be promoted in which that is wont to end. 2. *From the suppression of the after purgation*, in the cure of which, note. 1. That a vein is most commodiously opened in the ankle; if that cannot be done cupping glasses with scarification are wel applyed, to the thighs and leggs. 2. The time of the flux being over past, and a feaver urging, a vein in the arm may be opened. 3. *From the store of vitious humors*, in

in which we must diligently consider whether the sick ought to be purged, or not, the time of the flux being over, only gentle ones must be administred. Things that alter, which stop the flux, as cold things, four things, must be avoided.

[Read more of this subject in the Guide to Physick and Chyrurgery, Riverius Practice of Physick, and his Observations; and the London Dispensatory. Al of the last Editions, Englished by me.]



Title, XIII. Of the Affect of the Belly.

A single Chapter, Of the Rupture of the Navel, and Inflammation of the Muscles of the Belly.

Amongst the affects of the belly is, A Rupture of the Navel, and Inflammation of the Muscles of the belly. *Omphalocoele*, which is a swelling of the Navel from the Guts, Caul, water, wind or a fleshy substance fallen into it, or arising there.

The Signs, Cause, Cure, do vary according to the Nature of the Differences.

The Differences are taken from the Causes.

One is *Intestine* or *Enteromphalos*, when the Guts slide into the Navel, which is known by this, that the Tumor is not very hard, nor soft; holding the breath it increases, and the Patient lying on his back it sinks, the Guts going back into their place with a noise and rumbling. It arises from blows, falls, jumping, lifting of a heavy weight, hard labor, riding, crying out, Mourning, Laughing, &c. In the Cure it requires. 1. The putting of the Guts into their place. 2. The ascription of the peritoneum relaxt, the consolidation of it if it be broke, amongst Medicines are, Comfrey, Sannicle, through-wax, Rupture wort, Boyled in red wine and given. Incision must be admitted at last, when no other things do good. By *Ligature* sometimes we provide against this affect.

Another is of the *Caul* or *Epiplomphalos*, when the *Caul* slides into the Navel, which is known by this, that the Tumor in one part is softer, broad at the Basis, and narrow towards the top, that there is no pain present, and the same being prest with the Fingers it sinks, the *Caul* returning into its place, It arises from the same Causes. The Cure is the same, but in a soft and young body 'tis easier.

Another is *watery* or *Hydrophalos*, when the Navel is lift up into a Tumor by water, which is known by this, that the Tumor is lax, and if it be prest, 'tis neither increased, nor decreased, that 'tis joyned with a waving, and holding a Candle to it, it appears clear and perspicuous. It arises from water collected between the Peritonaeum and the Skin of the belly, proceeding from the Causes mentioned in the Droplie. In the Cure take place things drying and discussive, if these succeed not, incision made like a half Moon.

Another is *windy*, when wind distends the Navel, which is known by this, that the Tumor is soft, yeilds to the Finger, gives a sound like a drum, and let the Patient lie which way he wil it is not changed. 'Tis hardly cured if it have its Cause lurking in the bowels which nourisheth it, in Infants 'tis easily taken away with discussives.

Another is *fleshy*, when a fleshy substance lifts the Navel up into a Tumor, which is known by this, that the Tumor is hard, and being prest doth not yeild, and is changed by no manner of lying. 'Tis Cured by cutting of the flesh performed by a caustick Medicine or Iron, unless it turn to a Cancer, for so the evil is incurable.

An Inflammation of the Muscles of the belly affects, either the right *Muscles* or *transverse*. If those the Tumor is oblong, and extended al over the belly. The Skin is not handled without pain, and being laid hold on doth not follow. In every posture the bulk of the Tumor remains the same. If these the deep parts are more affected, and because those Muscles are Membranous about their end and have many Nerves, the pain is the greater; 'tis distinguished from an Inflammation of the Liver by this, that it follows the Figure of the Muscles, and is not so round. The Cure is such as in other Inflammations; and so much of the lower Belly.

An Appendix.
Concerning the Gout.

An arthritis is a pain of the parts about the joints, caused by a defluxion of a serous and sharp humor, poured forth of the veins and arteries into them, assailing by periods, having joined with it an hinderance of motion.

The subject is the membranous parts, and those endued with sense about the joints, from which neither are the membranous ligaments excluded. The pain is caused more in them, both because the humors are thrust thither from the veins and arteries, and because being carried thither they are in less room.

The SIGNS are almost evident by the relation of the Patient, at first assault the pain invades the great Toe, and for the most part of the left Foot, afterwards a Tumor, heat and redness is manifestly perceived; there is added an impotency to move, and in an Arthritic of long continuance hard Knobs, &c.

The CAUSE is a solution of unity induced, by a serous, Salt, and sharp Humor, this ariseth from the use of nourishments, as plants, Carpes, unwholsom wines, by the accession of a vitious constitution of the bowels, as of the Liver and Spleen, the efficient Cause of that Salt or Tartar. It oftentimes comes next to the Nature of spirits which have a most biting Salt in them, whence it often wanders up and down. By reason of the want of sufficient separation 'tis mixt with the blood. By the veins and arteries 'tis sent to the joints, whence when the fit is at hand, the vessels which lead to the hands and feet, and are inserted to the utmost joints, do swell, by reason of their weakness, either natural from their parents, or acquired, by labor, excess of the air, and other things altering the joints, from whence they become colder and more relaxt, nature being stimulated by its plenty, disturbing it self, and sometimes being helpd by external causes, as the spring or autume aire, affections of the mind, the retention of accustomed sweating &c. 'tis moved to the joints rather than to other parts, perhaps because the ligaments and tendons are nourishd with a more terrestrial blood, and that hath affinity with the tartarous humor.

The CURE is in general most difficult, both by reason of the disease it self in respect of errors in dyet, and other things, & by reason of the fit, because the humors disperfed through the liga-

ments, membranes, and nerves, by reason of thickens & coldness of those parts, are hardly discuss'd. None at all if any deadly disease be joined with it. If there be a luxation, for though the joint may be reduced, yet the ligaments remaine relaxt; if in the luxation, the cavity of the joint be filled with a topheous matter, because before that is taken away, the joint cannot be reduced; that cannot be taken away, if it be hereditary. It respects, I. The fit, in which, 1. The humors rushing to the part affected must be taken away, where bleeding takes place, if blood do abound, and that quickly, because the flux is urgent. Of the basilica it al or many joints be affected; in the opposite side if one only. No bleeding if stegmatick blood predominate, least discussion be protracted. Purg- ing when the pains are at hand, for which end is thought to serve, *bermoda pills, Paracelsus his arthritical powder, Horatius Angenus his electuary cariocostinum, the gum for the gout* in stronger bodies; in the weaker, the matter boyling very much, *Solenander his syrup of buckthorne, mechoacan &c.* Sweating, which is very well caused with the decoction of *China, of the root of bur dock, with treacle, barts- borne prepared, antimonium diaphoreticum,* 2. The afflux must be hindered by repellers, if the pain be increased by a tuddain and too great afflux of humors, but not by them alone, least the motion intended by nature, be stopd with danger of life, but mixt with things asodyne. The liquor of the flowers of mullein is commended, and *bartsborne burnt steep* and boyled in the water of mullein flowers and applied to the greived part. 3. The pain must be mitigated, where takes place, *Stockerus his oleum raninum, l. 1. c. 58. prax. Rulandus his antipodagrical water in Hartmans Chymistry. Lacuna his ointment of darc wort. The foame of the decoction of china root in Zacutus, l. 3. hist. med. hist. 38.* Anointing with the oyl of mans bones. *Freitagius his secret of opium and camphure* in his book of opium, Another of the same Authors, there of super of saturne, and the salt of the same &c. A lye sufficiently seasoned with salt, the powder of oriental Bezoar stone, or *barts- borne prepared, mixt with hony of roses and vineger* by a gentle heate, and layd on by way of cataplalme &c. 4. The matter which hath flowd thither must be discuss'd, where take place the ointment of *castor, Solenander his mushromy of the oak, consil. 24. sect. 4.* The water in which brass and iron are quenched, and afterwards *mercurius vitæ* is steep, the de-
coction

coction of Nettles, made with wheaten bread, Salt, wine and water, &c. 5. *The Knobs must be dissolved*, for which purpose serves, *A Cataplasme of old cheese*, dipt in the strong broth of Salt Hogs flesh; and that which you may find in *Hartmans Chymiatri*. 2. *Prevention*, which requires. 1. *A convenient diet*, in which ought to be shunned, the Air in excess, meats that do administer matter for it, drinking of Moravia and Austria wine, &c. too great passions of the mind. 2. *Bleeding*, unless the body be cold, some open the Veins of the great Toes every month. 3. *Purging*, which ought to be ordered spring and autumn, and it requires gentle ones rather than strong. 4. *The use of things good against the Gout*, as are *Germander*, *Ground pin*, *round Birth-wort*, the true *Pontick Rhubarb*, &c. 5. *The strengthening of the Joynts*, for which end serves, *a Lie made of the Ashes of beech*, and often strained, with the like quantity of wine and Alum, two ounces.

As concerning the differences, its species are, the *Foot-Gout*, the *Hand-Gout*, the *Knee-Gout*, and the *Hip-Gout*. Concerning them we meet with nothing besides what hath been

formerly spoke: Concerning the last we must observe. 1. *That it ought to be distinguished* from that pain, which indeed is most vehement, but neither causeth a Tumor, neither consists alwaies about a joynt, but in the middle spaces also between the joynts; oftentimes after it hath afflicted a man once or twice it returns not again al his life time. 2. *That it bath this property*, that 'tis diffused more largely than in other joynts, and often times to the adjoyning parts, both by reason of the largeness of the Hip bone, and the distribution of the Nerves, which come from the *Loyns* and *Os Sacrum*, to that Articulation, to divers parts. 3. *That 'tis very hardly Cured*, as wel by reason of the deepness and largeness of the place, as for the plenty of matter that is wont to be collected there. *In the Cure* for derivation a Vein in the outward Ankle is wel opened, if the pain tend outwardly; the Saphena in the inner Ankle if the pain tend inwardly. We must act with strong Purgers. *The Discussers* are *Sciatica-creffes*, *winter Cresses*, *dittander*, and others, concerning which consult with Practitioners. We write only an *Idea*. And let these suffice of the Diseases of the lower belly and joynts.



THE
ELEVENTH BOOK
OF THE
IDEA
OF
PRACTICAL PHYSICK.

Concerning Poysonous Diseases.



Title I. Concerning the French Pox.

hitherto we have treated of diseases that were not poysonous; **H** to those that are poysonous belong the pestilence, the leprosy of the Arabians, The French pox, and poysons. Of the two former we have formerly treated, now we must speak of the French Pox.

But the French Pox is a virulent & contagious caebery of the whol body, for the most part raging with a hot distemper falling of the haire, spots, swellings, stubborn ulcers, and cruel pain especially at night, enemy to the liver and nourishing faculty, arising from an excrement infected with a malignant and poysonous quality, transferred by contagion, but

especially by copulation, and tyrannizing with many symptomes.

It hath divers names; 'tis called the French, the Italian, the Neapolitan, the Spanish, the Indian disease, Syphilis, the gout of the privities, the great Pox, &c.

The adequate *subject* is the whol body, but the *sewel* of the evil is the liver it self, from which polluted, a crude and corrupt blood is dispersed into the whol habit of the body, and the nourishment of every part is depraved.

The signs of it *begining* are, a light *weariness* of all the members with a heaviness of the whol body, because the natural spirits which are the immediate instrument of the supporting faculty, are infected, a smal and wandring pain through al the parts, which a vapor raised from the liver inducech: by the same the color of the face is changed, and under the eyes there appeares a blewish circle as in menstruous bodies. An exceeding *heat* ariseth in the soles of the feet, and hands, even in the winter. The sleep is interrupted, a moderate *rotteness* about the privities, either because the filth
of

of womens secreters hath corroded the skin, or because the liver drives forth to the privities the contagion communicated to it by the natural spirits. Moderate, small *buboes*, nor painful, nor increasing much, because the liver drives out evil Excrements to the groines as to its emunctories. A french *running of the reins* which is inferd by the weakness of the spirits governing the faculties of the testicles. *Of it confirmed* are hard *pustles* al over the body, especially the head and beard, arising about the fourth or sixth month, sometimes with a crust, sometimes not; sometimes with filth, sometimes not, which ariseth either from a contagious matter sent from the liver, or from the part heaping up excrements by reason of the fault of concoction. Callous *ulcers* in the privities. A *softness* and hanging down of *the uvula* in the throat, which is followed with a hoarseness of the voice; for the natural spirit being weakened, flegme ariseth in the stomach, snivel in the braine, flegmatick blood in the veins, and in process of the disease being adust, it becomes sharp. *Tumors* of the glandules in the jawes the matter infected and voided by the emunctories, being communicated to the head. A *Corruption* of the palate and teeth, which shewes the highest degree of the disease firme, crying *Paines* arising before the evening, which proceed either from a malignant vapor, or from the excrement heaped up about the periostia of every part. A *Corruption* of the bones of the head and armes, before an ulcer doth arise. Malignant *ulcers* besetting the whole body for the causes now given. A *falling* of the hair, *crusts*, *callosities*, *clefts*, in the palmes of the hands and soles of the feet, which arise from a flegmatick matter very much burnt. A *tingling* of the ears which is produced, when the hurtful vapor from the head cannot be expel'd by the skin, nor by the mouth, nor nose, and therefore by the last endeavor is thrust to the ears. See more in Practitioners.

The *Cause* is an excrement polluted with a poysonous malignity, possessing the whol body or some parts of it, and corrupting the blood contained in the veins, and making it unfit for good nourishment; *is communicated* by contagion which is promoted *inwardly*. 1. By the weak force of the natural spirits, and the liver it self. 2. By the largeness of the vessels, that a passage lyes open for the vapors and filth. 3. By an easie inflaming of the humors, by which that is most easily snatcht. 4. By the nature and softness of the substance in the

parts. 5. By the affection of the minde, which if it be vehement, they that couple are not easily infected. *Outwardly by contact*, by communication of substance, viz. of the filth, Ichor, or suttie vapors; which is the easier, if the parts be soft, thin, and be hot; for which makes also, *copulation* with one infected, sucking of her milk, besmeering with the spittle, kissing, lying in bed with her, using the garments of one infected, &c.

The *Cure* is more difficult, if it seaze on those once cured. If it fall upon a hot and dry distemper, because either things propper cannot be administr'd, or if they be, another damage is brought upon the body. If it fall upon a hot and dry time of the yeare, because the strength is then most of all exhausted. If a Fever, consumption, or other greivous symptom be joynd with it; if there appeare in the joynts, callous, scitrous and hard tumors. If the sick be an infant, and hath suck'd in this evil with the milk, because the virulency goes into the stomach with the milk, which infects the liver and blood. *It respects*. 1. *Preservation*, the which can scarce be taught with a good conscience, least there be a door opened to wandring lusts, unless perhaps you understand that prevention, by which one infected endeavors to oppose the accustomed symptoms, that they grow not upon him. 2. *The Cure* which is accomplisht. 1. *By the emptying of the blood, and vitious humors wel prepared*. Where note. 1. That bleeding must not be ordered, if the bubo be suppurated, least the matter be called to the inward parts; it must be ordered, if blood do abound, that appropriate medicines hot and dry may more safely be given. If the matter be not moved to a peculiar part. If the matter tend to the head the cephalick vein must be opened; if to no part, the basilick veine. If there be a rottenness in the yard or running of the reins, in the lower parts, if the bubo tend not to supuration. 2. *Purging* must be ordered at the beginning, least there be hurt done to a soule body by things alexipharmacal; it must be continued al the time of the cure, if matter be collected *that must be omitted*, if the matter stick chiefly in the external parts; mechoacan and jallop, adding things specificall, are of best use here. 2. *By overcoming the malignity and virulency, in bearing as wel in the humors, as parts, and especially imprinted on the liver*, which is perfected by sweaters and salivation. *The sweating* medicines that are propper here, are *pock-wood*, which is better

administered in a decoction or spirit, than any other sort, that its oily and rauzeny part may be drawn forth, in which all the vertue consists, and in a lesser quantity at first, least it bring some damage by its too much heat, especially when cataracts are present. *Sarsaparilla*, the bark of which root ought chiefly to be taken casting away the pith, but must not be given where there is present a pain of the eyes: *China* which being temperate, and having somewhat nourishing, is most comodiously given when there is an atrophy. *Sassafras* that is of an aromatical smell, *sage wood*, *Juriper* with its berries, beach, box. Of which see *Renaldus* his observations. *Bezoarticum animale mixtura simplex*, *perlicaria orcanum*, *Hartmans whitespirit of mercury*, and his red, &c. the manner of using them, *Fallopins* and *Quercetan* in peculiar tracts of the French pox have evidently described, and *Hartman* in his Chymiatry, *Senertus* in his 6. Book of practice. A flux is raised with *Mercury* or quicksilver either taken inwardly where turbit takes place taken from one grain to three, pills of one scruple; of powder of maffick with a few grains, as from three to eight of *mercurius dulcis sublimatus*, made up with honey into bals, and chewed sometimes for thirty dayes. Or outwardly by anointing, sometimes applying a greater, sometimes a less quantity of quick silver (two scruples may be used every time) which the emptying of the body by purging or bleeding ought to go before. The mixture and mortification of pure mercury and vivified by cinnabar, with hoggs grease, oyl, butter, turpentine, must be followed with the bringing forth of the mercury out of the body, that none of it be left there, by sweating, holding of gold in the mouth, drinking of filings of gold, and other waies. Washing of the mouth and jawes with warm milk. Hundering of inflamations with the decoction of plantane, self beale, &c. But in general we must observe that mercury must be applied, when the decoctions of the woods cannot be admitted, by reason of somewhat forbidding them, or when the disease cannot be overcome by other remedies, and that not unless the strength be firm. The body not too foul, nor too much wasted; the aire not very hot, the patient before the disease being free from a palse and trembling. Suffumigations are too vehement, therefore they are reckoned amongst the last remedies. 3. By

convenient diet, whose exact description see amongst authors. The chief symptoms we meet with in the French pox are, Either 'tis caused by contract or touching the privities of one sex being infected. And then pustles breake forth, first smal and white, which exceed not the thickness of the least grain of mille c: there breaking there remains a round ulcer having a white point in the middle: sometimes the whole nut is compact with them coupled together as with a ring, without pain, with a light itching. 'Tis cured with oymntment of diapompholligos, or nightshade water in which a little rock allum is dissolved layd upon faggs. Or by transmissing of a thin excrement from the liver to the privities, and then there is a round ulcer, without a white specke, livid, having the lipps a little puffed up, purple coloured. In the cure repellens must be shuned, least a bubo be caused. It may be washt only with the decoction of pockwood with plantan water, &c. or by the beating of the excrements cleaving to the privities by copulation, putrefaction and infection, and then the ulcer is malignant, not round, of divers figures and colours, having callous lips, creeping, &c. Concerning the cure of it consult with *Fallopins*, c. 85. 2. Or 'tis in the bosome of the womb, the cure of which after washing requiers *Fallopins* his pessary. Deterfives if the ulcers begin to be suppurated; causticks, if the putrefaction be strong, a red hot iron, having a care of the sound part, a dayly washing of the privities with the decoction of pockwood with scabious and tormentil. Or in the channel of the yard, which is known by the filth flowing forth, and great pain in the time of pissing, and is cured after the same manner as that which followes. Or in the nut, to which those things going before and which follow after, ought to be applied. 3. Or 'tis with a tumor of the foreskin that the nut cannot be uncovered, or if it be uncovered, 'tis done with a great deal of pain, concerning which see *Fallopins*. c. 83. Or with a callousness of the foreskin, of which the same author. c. 84. or with a callous skarre, or with warts or excrescencies, of which. c. 87. and 88.

II. Buboos

II. *Buboes*, which are Distinguish'd from others that are not gallical, that either a Rotteness, or a contagious running of the Reins is present, and Copulation went before, there being no other certain cause existent. But those Tumors are of two kinds, sometimes the matter is collected about the Glandules in the membranethat covers the Glandules, or that fills up the Cavity of the groins. Sometimes the proper substance of a Glandule swells, which Tumor sometimes riseth to so great a bulk, that 'tis bigger than a loaf. In the Cure bleeding and purging must be avoided unless the Bubo either decrease, or be at a stay. A *Diachylum Plaister*, doth mollifie and ripen it, being opened *Opodeldoch* is wel laid upon it. The *Black Oyl of Tartar* is a most excellent discussive.

III. *A falling of the Hair*, which ariseth from an evil Humor knawing the Roots of the Hairs. In the Cure, astrigent things must be shunned, gargles and sweats here do much good; to which may succeed the washing of the Head with *Fallopious* his lie.

IV. *Pains of the Head*, in whose cure inwardly takes place, *Hartmans Diaphoretick Oyl of Mercury*, outwardly *Vigoes Magistral Plaister de canis*; and that of *Platerus*, *Observat. l. 3.*

V. *Pains of the Joynts*, and especially of the lower parts between the Joynts, which at night grow more feirce, because then the pores are stop'd, and they are taken away by fomentations.

VI. *Pusiles, Efflorescenciers, Scabs, clefts*, in the palms of the Hands and soles of the Feet, the Cure of which see in *Hartman.*

VII. *A running of the Reins*, in which the same *Hartman* commends, green Mercury precipitate, or the Gum of Pockwood, which being given, Turpentine wash't in violet water, and dissolved with the yelk of an Egg ought to be administered with the Decoction of *Sarsaparilla*. 'Tis distinguish'd from another by this, that it causeth little or no itching, nor doth not so soon cast the Patient into a Consumption.

VIII. *A tingling of the Ears*, which is very difficultly cured, yet sometimes it vanisheth by the use of the decoction of Pockwood. *Septalius* commends an *Asses water* distilled, in which Pockwood, some castor and a bundle of Horse mint have steeped all night, and drop't into the Ears, or the fume of it received.

IX. *Hardnesses, or Knobs and Gum-*

mosities, for the Cure of which *Platerus* hath afforded excellent Plaisters in the third booke of his *Observation*. Huther belong *Hartmans Oyntment* made of *Unguentum Aureum* of the shops, and *Mercury sublimat*.

X. *A Consumption*, in the Cure of which *Septalius* tells me, l. 7. Of his *Animadversions*, p. 322. That the Decoction of *Sarsaparilla*, made with leane Veal, is admirable.

[Read more of this subject in the Guide to Physick and Chyrurgery, *Riverius* Practice of Physick, and his *Observations*; and the *London Dispensatory*. Al of the last Editions, English'd by me.]



Title, II. Of Poysons.

Chap. I. Of Poysons digged out of the Earth.

Poysons considered in special are, either digged out of the Earth, or Vegetables, or Living Creatures.

The cheife and most common of those digged out of the Earth, are the following.

I. *Aqua Fortis*, whose strength is broke by the Mucilage of Quince Seeds, Flea-wort, Gum Tragacanth, &c.

II. *Antimony*, whose Antidote is bole-Armenick given with Oyl of Cloves and a little Wine. That it hurt not with its Vapors whiles it is wrought in the fire, we must Eac butter with Rue, or drink Zedoary water.

III. *Lapis Lazuli*, which if it be taken either ill prepared, or in a greater quantity, it ought to be cast up by vomit, and be tempered with a draught of warm Milk, especially asses Milk.

IV. *Asnick, Auripigmentum, Sandarach*, which sometimes infect by their smell; their specifics are, Crystal digged out of the Earth powdered and drank, one dram weight with new Oyl of sweet Almonds and Oyl of Pine Nuts given, three drams weight.

V. *Burnt brass, Scales of Brass, the flour of Brass, the rust of Brass*, which are weakened by sheeps Fat taken in broth, are killed by Bole-Armenick given with Honey and water.

VI. *Refuse of Iron, and the rust of Iron*, whole

whose antidote is thought to be one dram of a Load-stone made into Pills with the juyce of Mercury.

VII. *Lead*, to which are opposed the Kernels of quinces husked, bruised and given, two drams weight with sweet wine.

VIII. *Quick-silver*, against whose fume received we proceed with a draught of wine in which some Cephalick things have been boyled. Sublimate is resisted by Oyl of Tartar, or Salt of Wormwood.

Chap. 2. Of Vegetable Poysons.

Vegetable Poysons, or those of plants, are as follow.

I. *Aconitum*, or *Monkes hood*, whose antidote is *Andromachus Treacle*, or *Tetra Lemnia* in wine; outwardly the swelled body must be anointed with Oyl of *St. Johns wort*, and *Scorpions*.

II. *Spurge*, against which a vomit being premised, *Andromachus Treacle* is good with *Carduus water*.

III. *Mexetreon*, which is resisted with water *Germander*, red *Coral*, *Treacle*, and *Tetra Lemnia*.

IV. *Black Hellebore*, whose antidote is the powder of the flowers or Roots of white water *Lillie*, or of *Parfnip seed* with wine.

V. *Coloquintida*, whose force *Treacle* doth infringe.

VI. *Euphorbitum*, whose force is broke with *Citron Seed* in wine in which *Elecampane Roots* have boyled.

VII. *Green Coriander*, which causeth a furious raving, and hath the Root of swallow wort in wine for its antidote.

VIII. *Mandrages* which causeth a heavy sleep, its Symptoms are resisted by garden radish taken sometimes with Salt.

IX. *Henbane*, which they that have taken of it, do sometimes rangle; and dote like drunken men, sometimes think that they are beaten with rods, by reason of an Itching caused in the whol body, its antidotes are *Pistachoes*, *castor*, *Rue*, *Nettle Seed*.

X. *The Walnut Tree*, whose shade, if any one lie under it, it doth hurt, and causeth pains of the Head: they are taken away with a lie of *betony*, *Marjoram*, *Lavender*, &c.

XI. *Nux Vomica*, whose antidote is *Zedoary*, two drams weight, *Citron Pill* or the Juyce of it, Juyce of the *Myrtle* or *quinces*.

XII. *Opium*, upon the too much use of which a Heavy sleep seizeth with a *Vertigo*, and itching of the whol body, whose antidote is *assa Fetida* and *castor*, to which add *Rue*, and *Origanum*.

XIII. *Mushrooms*, which if they be taken either in too great quantity, or be not well concocted do cause *Suffocation*, raise the hickops, stop the *Urin*, and exulcerate the *Guts*. In the *Crue*, are commended the ashes of prunings of vines, with honeyed water; *Treacle* and other things.

Chap. 3. Of Poysons from live Creatures.

The cheife Poysons which are inferred by living creatures, are those which are Caused,

I. *By an aspe*, whose wound is so smal, that it can scarce be seen; upon its biting, there come a heaviness of the Head, sleepiness, paleness of the Face, often gapings, &c. In the Cure we must provide by ligatures and Scarifications that the Poyson pierce not into the body; *Treacle* with bruised *Rue*, must be laid on the wound. Things alexipharmacal must be given inwardly, amongst which are commended, the leaves of *Mullein*, *Avens*, boyled in *Vineger*.

II. *By a Viper*, at whose stroke first the blood comes forth pure, which is followed by a bloody and frothy filth like to the rust of brass, with a notable tumor of the part and whol body, pustles adust and blackish in the part affected. Its antidote is *costus* given from half a dram to one dram; with wormwood wine or the Decoction of wormwood, an *Hares Runner*, *Leeks*, &c.

III. *By a Scorpion*, at whose stroke do follow pain, inflammation, a Tumor, pustles about the wound like warts. 'Tis resisted by sage, water germander, wormwood, gentian, birth wort, up-right vervain, wild time &c. One hath been freed by frankincense bruised in whom the scorpion had left its print.

IV. *By a Lizard*, which leaves in the wound for the most part, its subtile, smal black teeth; the teeth must be drawn out with *Cupping-Glasses*, a *Cataplasme* of the crum of wheaten bread made with the Decoction of *Rue*, *Galick*, *gentian*, must be applyed. Inwardly we must act with things alexipharmacal.

V. *By*



THE
 TWELFTH BOOK
 OF THE
 IDEA
 OF
 PRACTICAL PHYSICK.

Of the diseases of Children.



Title. I. *Of the diseases of the Head.*

WE might here now stop, and conclude our little work, but that the diseases of children do hinder us, in which we meet with some things singular. Concerning them therefore we will speak very briefly in this last book as an appendix; and we shall not unprofitably divide them into the diseases of the head, middle, and lower belly.

The diseases of the Head in Children are.

I. A milky crust, *achores* and *favi*, or ulcerous bunnings out, arising chiefly in the head, but sometimes in the whole body, pouring forth of their holes sometimes matter. They arise from a humor containing partly thick, partly thin, serous, salt, and nitrous

parts, either collected in the womb, or out of it by default of the milk. In the cure if no evil be feared, things that drive it out must be administered, as syrup of fumitory, burnt hartshorn, the nurse must be purged, the matter offending be qualified by giving syrup of burrage, fumitory &c. if an eminent putrefaction be feared under the crust, the head must be washed with an emollient decoction, afterwards gentle drying ointments must be applied; if the skull be hurt we must provide for that.

II. *Asiriasis* or inflammation of the brain and membranes, which a hollownes of the forehead and eyes doth follow. 'Tis known by this, that the bones of the fore part of the head at their upper part, where the coronal and sagittal suture do meet, are as it were membranous, & the lower parts of them all are hard. It may arise also from the milk if the nurses use spirituous and hot drinks. As *Lucretius* is Author that the goats tender young ones, are made with milk and wine. In the cure we must endeavor that the brain be not hurt with the too much use of things cooling.

III. *A falling sickness*, which proceeds, 1. From a fright, all occasions of which must be avoided

avoided. 2. From milk corrupted in the stomach, and then a vomit is best. 3. From Worms, moving themselves in the Guts, of which Care must be taken. 4. From hard breeding of Teeth, which must be promoted. 5. From the smal Pox, Meazles, and Feavers, which also must be Cured. 6. From a primary affect of the Brain, the Cure in general respects both the time of the fit and the time after the fit. There is comended the *Emerald stone*. The Stone found in the stomach of *Horseleeches*, opened about the opposition of the Sun and Moon. *Elkes Hoofe*, put into the left Eare, a vomit here, *A Nodulus*, of *Harts-horn* prepared, Salt of *Corals*, *Crystall* prepared, the wood of *Mistleto* of the *Oake*, put into the drink and renewed every fifth day, a *Plaster* made of white *Amber*, *Frankincense*, *Mastick* of each one dram and an half; *Galbanum*, *Opoponax*, of each one scruple; *Mistleto* of the *Oake*, two drams; *Amber Greefe*, six grains; *Musk*, three grains; *Male piony Seeds*, half a dram; *Labdanum*, one dram and an half, with a little *Oyl* of *Nutmegs*, and sprinkled over with the powder of *Cubebs*. The *Forehead* and *Neck* also may be anointed with *Oyl* of white *Amber*.

IV. *Fears in sleep*, which because they arise from impure and filthy Vapors mixt with the Animal Spirits, and troubling them, raised from the Stomach, therefore they happen to Infants that do greedily suck. In the Cure, we must see, that the Infants do not too much ingulfe themselves in Milk, or that bad Milk be not generated, or that the little ones be not carried to bed on a full stomach. Let the stomach about its Orifice be anointed with *Oyl* of *Quinces*, *Mastick*, with *Oyl* of *Nutmegs*, before they sleep let a rowle of *Diamoschum* dissolved in Milk be given, and unless they be very hot, let a little *Treacle* be given weekly.

V. *A Convulsion*, of the joints in the *Hands* and *Feet*, which ariseth from the plentiful heaping in of thick Milk, and with which they are for the most part troubled about the time of breeding of teeth. In the Cure we must have a care of a cold and hot distemper, the *Neck* and joynts must be conveniently anointed.

VI. *Too much Watchings*, which for the most part do arise From sharp Vapors raised from the Milk corrupted in the stomach, sometimes they rise from Feavers, or some painful affect, In the Cure 'tis better that the soles of the *Feet* be anointed with the *Marrow* of *Deers bones*, than that strong *Hypnoticks* be given,

by which they are made more stupid.

VII. *A Squinting*, which is Cured in the new born if the light be placed on the contrary part to which the Eyes decline, or a *Vizard* with holes be put on the *Face*, of which See *Hartman*.

VIII. *A Moisture of the Ears*, arising from the moisture of the brain heaping up many Excrements, in which we must not be over hasty in the Cure. The *Urin* of *Children* distilled dropt into the *Eare* is comended.



Title, II. Of the Diseases of the middle Belly.

THE Diseases affecting the middle Belly in Children are.

I. *Hard breeding of Teeth*, which is known by this, that 'tis the time of *Toothings*, which happens about the beginning of the seventh Month; the Infants often put their fingers in their Mouths, the *Nurses* feel their *Nipples* to be griped stronger; the place where the Teeth endeavor to break forth looks white, a great pain afflicts them, especially when *Dog Teeth* are cutting, with watchings, a looseness, *Convulsions*. The Cure is of good *Hopes*, if the Belly be loose, if an acute *Feaver* happen, because the matter causing the *Convulsion* being wasted by the *Feaver*, the *convulsion* ceaseth. If the Teeth break forth in the *Winter* or *spring*, because in the *Winter* the strength of the *Native heat* is greater. In the *spring* the *Laxness* of the *Gums*. We must have a care in it, least that if the *Belly* have been loose, it be not too soon stopt. The *Gums* being swelled must be anointed with the brains of a hair boyled, or with the *Fat* of it; being inflamed, with the *Oyntment* of *Oyl* of *Roses* and white *Wax* washt with the *juyce* of *nighthade*. Being *Ulcerated*, with *fresh butter*, with a little *Honey* and powder of *Frankincense*.

II. *A Cough*, with difficulty of breathing, which either ariseth from matter falling from the *Head*, and then there is a *Catarthe* and *Cough*, and in breathing there is perceived a certain *snoring* and *soud*, whiles the *Aire* doth not pass freely, but through the ob-

is discerned from an Inflammation by this, that the Navel yeilds to the touch, the color of the Skin is not changed, neither is there a Pulse or pain, unless the Guts be very much fallen down. It ariseth, 1. From the ill tying of it, or when a greater part of it than ought to be, is left, and this is incurable. 2. From the Laxation of the Peritonæum, and then the Tumor remains almost equal, the Navel hangs not forth so much; in the Cure we must have a care of windy Meats, Coughing, Crying. 3. From a Rupture of the Peritonæum, and then the Tumor when the Infant lies on his Back, is scarce perceived, when it walks, Sets, Cries, Cals out, it increaseth. In the Cure the most which grows on the Bullace Tree, is good. Forestus, commends rounds made of Leather and anointed with Oxyroceum.

X. The Stone of the Bladder, which is known by this, that the Urine is made with pain and by drops, 'tis sometimes cleare, sometimes like Milk or Whey, sometimes contains some blood, the Infants perceive an itching in the yard. It ariseth either from Milk generated from meats producing a matter fit to form a stone, or from gravel by the accession of the weakness of the Stomach or Liver, by reason of which, things Unprofitable are not separated; or by the hot distemper of the Kidneys, by reason of which the Chyle is attracted, and sent to the Bladder unaltered. In the Cure baths take place with anointing, also broths made with the grains of Eglantine purified. See above, l. 6.

XI. Incontinency of Urin, which ariseth, 1. From Custome, the Muscle appointed to shut the Mouth of the Bladder, being so disposed, that 'tis relaxt at the least goad; if it pass to a habit, for the most part it accompanes til Death. 2. From the Stone of the bladder, of which formerly. 3. From the

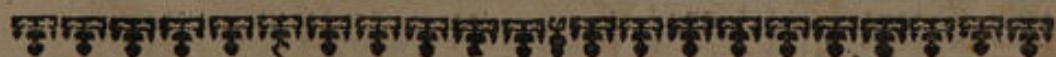
weakness of the Sphincter Muscle, induced by a cold and moist distemper. Which is taken away partly by the Nurses Dyet, partly by convenient Medicines inwardly and outwardly applied (a Bath of Sulphur, Niter, and Oak Leaves is commended.)

XII. An Intertrigo, when the Scarfe Skin in the Hips is separated from the true Skin. It ariseth chiefly from the Actimony of the Urin, especially in the Corpulent, in which the filth cleaves to their Hips being wrinkled by reason of their Corpulency. In the Cure after a bath takes place, Nihilalbum, strowed on the place, or the Oyntment of Lytharge laid on.

XIII. A Leanness, which ariseth, 1. From most smal Worms, which are generated in the Musculous parts of the Arms and back, & consume the nourishment. They break forth like to ash colored or black Haurs after those parts have been rubbed in a bath wick bread mixt with Honey. They are taken away, if after they have put themselves forth, they be shaved off with a raizer or crust of bread. 2. From Milk either little or Bad, which faults are sometimes mended by changing of the nurse. 3. From bewitching, which is inferred either by touching of bodies evilly affected, as happens in the Scab, French Pox, &c. Or by diseased effluxes which break forth either from them or their Parts, the Eyes especially, and are transferred to them. (Hence if one earnestly look upon those troubled with an Ophthalmy, he is taken with the same Disease) amongst the medicines that destroy bewitching, Amber and Coral hanged about the Neck are highly commended by some. But concerning Childrens diseases, consult with Sebastianus Astrucius, and the notes of Nicolaus Fontanus, upon him.



F I N I S.



*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 near 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 men & bodies (both before and after *Michaelmas, 1653.*) to the great admiration of many: and when the parties Difeased have been both senseless and speechless, for that neither that, nor any other Medicine of *Pymacon*, though never so gentle, could safely be administred into the body, it hath beyond all Hopes, by external Application on the stomach 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 go 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 Jaundce, 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 universal 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, yee 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.

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