A discourse of the whole art of chyrurgery. Wherin is exactly set down the definitions, causes, accidents, prognostications and cures of all sorts of diseases ... Whereunto is added the rule of making remedies which chyrurgions doe commonly use, with The Presages [and Oath] of divine Hippocrates / [Peter Lowe].

Contributors

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CHYRURGERY.

P. LOWE.

1654

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VI4

A DISCOURSE OF THE VVHOLE ART OF CHYRURGERY.

VVherin is exactly set down the Definitions Causes, Accidents, Prognostications and Cures of all sorts of Diseases, both in generall and particular, which at any time heretofore have been practised by any Chyrurgion, According to the opinion of all the ancient professors of that Science.

Which is not only profitable for Chyrurgions, but also for all sorts of people; both for preventing of Sicknesse, and recovery of Health.

Compiled by PETER LOVVE *Scottishman*, Doctor in the Faculty of Chyrurgerie at *Paris*, and ordinary Chyrurgion to the French King and *Navarre*.

Whereunto is added the Rule of making Remedies which Chyrurgions doe commonly use, with the Presages of Divine Hippocrates.

The fourth Edition; corrected, and much amended.

LONDON, Printed by *R. Hodgkinsonne*, 1654.

SOCIETY OF LONDON

A LA BELLE

G. a. 9

TO
The Vertuous, Right Honourable,

and most worthy of all honours, and good titles,
JAMES HAMILTON, *Earle of* Abircorne,
Lord Paſlay Kilpatrick, Monkcaſtle, &c. *Knight of*
Mungton, *Sheriffe heretable of* Linlithgowſheire,
one of his Majeſties moſt Honourable privie
Councell: Your Honours dutifull loving
ſervitour wiſheth a long and happie life,
with increaſe of Honour and
Vertue.

Y VERY GOOD LORD, The univerſall approbation of the beſt practiſed in my profeſſion abroad, of a few of my travells, hath emboldned me to review them more curiouſly, and renew them in more comely faſhion, detracting what ſeemeth ſuperfluous, and ſupplying ſome defects. In which labour, I have experimented the undoubted truth of the vulgar ſaying. That our laſt workes ſmell of greateſt perfection, proceeding from riper judgement. The moſt ſufficient in all ages, *provocarunt a prioribus ad poſteriora cogitata: Deus & natura ut nihil fruſtra ſit, nec præcipitanter:* as God in the production of the great world, uſeth ſucceſſive creation, ſubſtituting the moſt con-

 ſummate

summate workes to the anticedent; Man the abridged Image of the Divinitie, the Crowne and end of all: but so, that his matter preceedeth his form, *argillaceo ergastulo spiraculum vitæ insufflatum:* so nature in the fabrication of the *Microcosme* of the *Embryon*, which time formeth *omnibus numeris absolutum hominem*, Thus fareth it with the Imitators of so accomplished Architypes; in whose number I enrowle my selfe, having already published the first fruits of my studies of the whole Art of Chyrurgerie, in Theorick and Practick, with the curation of a great many other diseases not yet practised by any Chyrurgion: but yet as a matter somewhat indigest, which now I recall and strive to perfect in a more methodicall order. All which I emboldned my self to shroud under your honourable shield and protection, in regard of your Honors manifold curtesies and liberalities extended to all Schollers and strangers, whereof I have good experience in infinite benefits bestowed by your Honour, for the which doe I thinke my selfe principally bound to doe you all service. The which I being now willing to performe, as also tendring the commoditie and benefit of my native Country, as likewise to exonerate my selfe of that burden which every man is bound to undertake for the cõmon-wealth. But if my industry could have produced better effects, it would rejoyce to passe under the protection of so honourable a Patron. May it then p'ease your Lordship, (even as *Minerva* harboureth her Owle under the target, *Citherea* the deformed *Cyclops* in her lovely bosome, and *Apollo* the night raven under the heavenly lute) to accept in good part, the painefull

travels

travels of your humble servant, as a manifestation of my unfained service, and particular duty to your Honour: which I humbly offer to you as a pledge of my zeale and good will toward you, your Honorable and matchles vertues, which are sprung partly from your noble Parents, but more plentifully enriched by your invincible minde, and peereles endevours, whereby yee manifest to the world the true *Idea* of perfect nobilitie, leaving to your posteritie a memorable remembrance of your never dying Fame. If your L. will vouchsafe to patronize my travels, far unworthy so honourable a Patron, I shall be safely protected from the malignitie of Calumniators, who pick out detractions of the perfectest works; as the *Cantharides* poyson of the most fragrant flowers: but my labours want not their reward, if it winne your L. good will: nor my minde his desire, if your L. vouchsafe your favour. And thus beseeching God the giver of all true honour, with wisedome to encrease both these blessings in you, with as many happy years, as vertues, and whatsoever good thing else: commending my labours with my selfe to your L. honourable protection and good liking, as one that daily entermitteth not to wish the advancement of your Honourable estate. So I humbly take my leave at my owne house in *Glasgow*, the 20. day of December in the yeare of our Lord God, 1612.

Your Honours most dutifull
servitour to command.
PETER LOVVE.

To the friendly READER.

IT is commonly said, as it is of truth (good friend) that idlenes is the mother of all vices, which doth not only engender them, but also nourisheth and entertaineth the same : for avoiding whereof, as also because thou hast had my first labours agreeable, I have taken courage to travell further for thy profit : for my greatest contentment is to advance thy study, and to instruct thee in the whole course of Chyrurgerie, with the manner to cure the most part of all diseases usually practised by Chyrurgions, as well by ancient as late Writers, of divers and sundry practises, and hidden secrets, not practised heretofore by any Chyrurgion, as you shall clearly perceive in this work. Three things doe I not publish, as Plato *his Common-wealth,* Cicero *his Oratorie, and Sir* Tho. More *his Entopia : Leaving to the world a wished perfection not practised. But I impart to you my labours, hidden secrets, and experiments by me practised, and daily put in use, to the great comfort, ease, and delight of you, and such as have had occasion to use my help in* France, Flaunders, *and elsewhere, the space of 22. yeers : thereafter being Chyrurgion-Major to the Spanish Regiments at* Paris *2 yeers : next following the French King my Master in the Warrs 6. yeers, where I took commoditie to practise all points and operations of Chyrurgery. Upon which occasion I endeavoured my self to collect my practises at vacant hours, into this Book, according to the opinion of the ancient and learned practicioners, in Physick and Chyrurgerie, in such plain terms as I could, for the use of the common sort : which now I doe offer to thee newly corrected and enlarged for thy greater comfort. Seeing then I doe not intreat of any vain fable, but of such earnest and serious matter as toucheth the profit of all men in generall, and*

the

TO

My very VVorshipfull, learned, and *well experimented good friends*, Gilbert Primrose, *Sergeant Chyrurgian to the Kings Majestie*; JAMES HARVIE *chief Chyrurgion to the Queens Majestie; those of the Worshipfull Companie of Chyrurgions in* London, *and* Edenborough, *and all such well experimented men in this Kingdome, who are licenced to professe the Divine art of Chyrurgerie*: Peter Lowe *wisheth all happinesse of life.*

ALL Men of vertue, and well affectioned to the Common-wealth (Worshipfull Brethren) ought without all dissimulation to endeavour themselves by all means possible, to instruct such as are and doe ignorantly in that which is profitable to the Common-wealth: as also to make such know that which is hurtfull and unprofitable, to the effect, the simple or common sort, may choose that which is commodius and profitable, and reject that which is hurtfull: For these, and divers other good considerations, ought all Men (chiefly yee who have Authoritie, Learning, and Knowledg in the Art) to stop such as work unskilfully: as I doubt not, to the griefe of all honest Men, this Art is seen daily abused by a number of ignorant malicious people, who passe away, (but tryall, or punishment) like as cosoners, quack-salvers, charlitans, witches, charmers, and divers other sorts of abusers; whose

names

names I will for the present omit, in hope they will desist, their own consciences accusing them ; But alas I doubt not, but the most part of them lack both soul, conscience and fear of God, are of more unhappy life, ignorant, and void of all skill, giving ever to the diseased *quid pro quo*, promising marvails, and to cure all things in short space : which I grant is a sure *Maxime*, as I could give over many examples to the destruction of many, and grief of those to whom they appertain. Of those abusers, there are eight or nine divers sorts : For some run from one town to another, promising to heal all things by vomitaries, and laxates, chiefly with Antimonie, Præcipitatum, (which is powder of Quicksilver) Laureola, Elebour, Colocynth, Æsula, Catapus, and divers other poysonable medicaments, full of venom uncorrected, without either waight or measure : those are the death of infinite numbers, who for the most part end their daies by cruell vomiting, insatiable going to the stool, with syncops and intolerable dolour of the stomack and intestines ; of those, some die the first or second day ; the most robust, the seventh or eight day at the farthest. Another sort of those deceivers alledg to have their knowledge by reading some other vulgar Books, those fellowes promise rare things, and are garnished with some words that are obscure, and not common, nor well can be understood to themselves, or by their Auditor : But to make it the more plausible, they ever thrust in those obscure words, in any purpose, and to make the matter to have more faith, they enterlace Scripture, with sighs, and sobs, and divers other circumstances. The third takes upon him to heal all things by Charmes, and praying to Saints of the like name that the sicknesse is of, alledging the diseases to be some Saints evill, as for example : such as become paralitick through a deflux of humors on the nerves, they term it to be a blast of evill wind, and by praying to St. *Blaot*, it shall heal : such as are hydropick, doe pray to St. *Hidrop* : such as lose their sight, pray to St. *Cleere* : those who hear evill or hath disease in their eares, pray to St. *Owyn* : such as hath the gowt called *Chiragra*, or any other disease in the hands, pray to Saint

Maiu,

Main, with divers other which were long to repeat. Those deceitfull ignorant people, consider not that all those diseases were long before any of those Saints. The fourth sort alledge to have the curation of all diseases from their Parents, as heritage, and those be impudent deceivers. The fift sort vaunts to be skilfull in such like diseases, by experience upon themselves, alledging them to be most skilfull in the cure of the French Poxe, because he was cured himself sundry times of the same disease. The sixt takes upon him to cure all things by poysonable Vomitaries only, chiefly Antimony, by the which those deceivers perverts all orders divine and humane, in Townes, and Nations, as ever hath been observed in Physick, that hath many evils happening, expresly condemned by *Hippocrates*, and divers other of the learned. The seventh sort of those ignorants, having some ulcers in their legs, or armes a certain space, takes upon him to heal all sores, alledging by some revelation, to have an unguent, called *unguentum ad omnes plagas* : this fellow with the rest doth cure all their abuses and mischiefs, with a truce or stone. The eight sort who having almost drunk out one of his eyes, and useth some few remedies for the same, professeth himself to be a fine Eyneſt. The ninth sort who hath been cut of the stone, or rupture, or seen beasts cut, takes upon him to be most excellent in the rupture, or stone. All those with divers others take on them to have done many cures, yet they forget the infinite murthred by them. Such mischiefs were never suffered among the Infidels, much lesse should be amongst Christians, to the great dishonour of God and his Lawes. I read at *Rome* in the time of *Cato*, that ignorants were banished that Common-wealth, the learned only and expert retained for the preservation of the publick weal, with power to such, to punish all abusers who durst be so bold to transgresse the commandements, constitutions, statutes and ordinances divine and humane. I might recite here many authorities both of the ancient and new writers, as well of Ethnicks as Christians, whereof sufficient witnesses remain of the great pains they have taken in keeping the Canons of this

Art and punishing of Impostors in such sort, that they were esteemed as Gods. Seeing those Ethnicks have been so curious in this matter, how justly may wee that take the name of Christians be evill thought of, for suffering of such abusers in our Art : yet I hope all honest men, especially you, who are towards his Majestie, will be earnest in purchasing of privildges and lawes, for restraining of all ignorant abusers in this Kingdome, like as is granted to Men of our Art, in other civill Countries to the great ayd and comfort of all Kings of those parts. It pleased his Sacred Majestie to hear my complaint about some fourteen yeers agoe, upon certain abusers of our Art, of divers sorts and ranks of people, whereof wee have good store, and all things failing, unthrifts, and idle people doe commonly meddle themselves with our Art, who ordinarily doe passe without either tryall or punishment. The matter being considered, and the abuse weighed by his Majestie and Honourable Councell, thought not to be tolerated, for the which I got a priviledge under his Highnesse privie seal, to try and examine all Men upon the Art of Chyrurgerie, to discharge, and allow in the West parts of *Scotland*, who were worthy, or unworthy, to professe the same. The which I observed as I might, although there be Men of greater authoritie and sufficiency to punish, and correct such if they would. But such is the iniquitie of time, that abusers are commonly over-seen by such as ought to punish them : in such sort that one blinde guides another, and most commonly fall both into the ditch. In the mean time these cheaters are permitted to use charms, lies, excreable oaths, mortiferous poyson, fallacious and uncertain experiments, whereby they destroy both friend and foe, ever detracting the true professors of the Art. Now worshipfull Brethren, in respect of those enormities with divers moe, which were long to repeat, I doubt not but all yee who are learned and true professors, having access, and credit with his Majestie, will seek and obtain such priviledges, and lawes, as well to correct and punish abusers, as also to withstand the frivolous or fantasticall opinions of such as use them, and neither for re-

quest

queſt nor lucre, to admit any ſuch ignorant abuſers to profeſſe our Art, but ſay with the Learned Philoſopher, *Plato*, *Socrates*, that the world are our friends, but the veritie above all. Which veritie maketh the flouriſhing of all Common-wealths, arts and ſciences. The which if you endeavour your ſelf to proſecute, no doubt but that God of veritie who doth recompence each one according to his merits, as alſo doth puniſh tranſgreſſors, ſhall reward you accordingly. The which God I beſeech to bleſſe and proſper each one of you in your calling, with good ſucceſſe in your Cures, happie end in this world, and life eternall hereafter. From my houſe in *Glaſgow*, the 20. day of December in the yeer of our Lord God 1612.

Your loving friend

PETER LOVVE-

G. Baker one of his Majesties chiefe Chyrurgyons in ordinarie.

WHO can deny, but he deserves great fame
that profit yeelds, t' all Nations where he goes?
His Country may rejoyce to heare his name,
that in strange Lands, such books of knowledge shows.
His study's how to make good Surgeons knowne,
rebukes the bad, and honours men of skill:
Then let him reape the Corne which he hath sowne,
his harvest seekes no more but worlds good will.
The Schooles hath plac'st him in an Artist's state,
The gravest here his Learning doth commend.
The Learned sees his studie hath beene great.
Whereby he brings great things to perfect end.
A wonder is, how world bare men rewards
For ryding horse, or dressing meat you see,
And those that save mens lives they least regard,
for they get neither stipend, gift, nor fee.
Blind is that age that doth the best despise,
And helpes the worst, to worship, wealth, and grace.
A common thing, Vice lets not Vertue rise,
But holds it downe, that ought have highest place.
Yet none can rob the Learned of their right,
No more than take sweet smell from flower in field.
Then Doctor *Lowe* thy lampe doth give such light,
That every one to vertue fame doth yceld,
Passe on with prayse through every soyle and coast,
Where *Lowe* is knowne he shall be honoured most.

G. B.

John

John Norden *Phyſitian in prayſe of the Author.*

APollo ſeene in ſimples, for his Art
in curing men, a God was nam'd to be:
knowing all ſecrets in each hidden part,
That vertue yeeldeth to each hearbs degree.
And by his knowledge of hearbs ſimplicitie,
The Heathen tooke him to be a Dietie,

For when as Nature wounded, was oppreſt,
Not able to ſuſtaine the griefe ſhee bare:
The body dying, then for want of reſt.
ſimples recured, ſuch their vertue are:
That who ſo ſeekes, and knowes, each ſimple found,
Their Nature ſoone ſhall cure any wound.

See *Chiron* here, *Apollo's* Puple, hee
Declares the ſecrets of his Maſters skill:
He ſeekes no meed, nor lookes for any fee,
Then give him honour for his meere good will:
That being Stranger born, yet loves us ſo,
To leave his Art with us to cure our woe.

In prayſe of the Author, LENVOY.

LOW, is thy name, high growes thy fame
Amongſt all Engliſhmen;
Thy Book ſhall ſave my verſe from blame,
When world well weighs thy penne.
If *Zoylus* or *Momus* brood,
Doe carp at thee, what then?
Feed thou thy hope with heavenly food
Amongſt wiſe learned men.

Iohn Norden Phyſitian

Thomas

Thomas Churchyard Eſquire, in praiſe of the Author and his Worke.

THe Nobleſt ſcience under ſunne,
That moſt mens live, doe ſave,
The art that greateſt praiſe hath won
Whereby great helpe we have,
Is Surgerie, *for knowledge there,*
In higheſt grace doth ſhine:
The skill is honoured every where,
for ſpeciall griefes divine.
When wrath & rage makes quarrels
And men in furie fight. (*riſe,*
In Surgeon ſuch great knowledge lies,
Greene wounds are healed ſtraight.
Fleſh cut, blood loſt, & every vaine,
And ſinnewes ſhrunk away,
He can by art reſtore againe:
And comfort their decay.
The mangled bones are ſet and knit,
In their owne proper place,
And every Limme in order fit
Comes to their force and grace.
By Surgeons mean who quickly ſees,
The dangers as they are:
And mends the miſchiefs by degrees,
With knowledge and great care.
Hath inſtruments to ſearch each joynt
Each skull or bruiſed bone:
And can with balmes & oyles anoynt
The nerves and vaines each one,
Knows all the nature, and each kinde
of hearbs, of flowers, and weeds,
And can the ſecret vertue finde
Of bloſſomes, leaves, and ſeedes.
Heales cankers, ulcers, and old ſores,
Hath precious powders ſmall
To eate proud fleſh and rotten kores,
And drie up humor all.
What griefe of body can be nam'd,
But he can help in haſte?
Yea though the liver be inflam'd,
And lights or lungs doe waſte.
In time and temper he can bring,
The lacke of each lame part,
As though in hand he had a ſtring,
To leade mans life by art. (*cald,*
Halfe gods good Surgeons may be
much more than men they be,
And ought like Doctors be enſtald:
in ſeats of high degrees
What doth preſerve the lives of men,
May claime due honor right,
And ſhould be praiſ'd by tong and pen,
As far as day gives light.
Long ſtudie gives a glorious crowne,
A garland deckt with flowers,
Under whoſe ſhade of rare renowne,
The Muſes make their bowers:
To ſit aud ſee whoſe gifts excell,
In Wit and cunning skill: (*well,*
Who beſt doth worke, who doth not
And who bears moſt good will
To vertue, learning, and good mind,
The Muſes favour thoſe,
And gives them grace of their owne
Great ſecrets to diſcloſe, (*kind,*

Revives

In praiſe of the Author and his work.

Revives their Wits, makes ſharp their
To judge, diſcerne, & know: (ſenſe,
Whoſe tongue is typt With eloquence,
And whoſe fine penns doe flow,
And Who the liberall art detains,
And mortall vertue have,
In whom a hidden skill remains:
And cunning knowledg brave.
It ſeems a ſtranger here of late,
Hath from the Gods divine,
Got credit, honor, and eſtate,
To pleaſe the Muſes nine.
The Surgeons of our King likewiſe,
Doe praiſe him for his skill,
His printed Books may well ſuffice,
To winn the worlds good will.
His merits far ſurmount the love,
I bear to men of worth,
My pen doth but affection move,
His deeds doe ſet him forth.

His knowledg makes blind bonglers
Their boldnes brings him fame (bluſh
Vaine Valentine *not worth a ruſh,*
Where Lowe *but ſhews his name.*
You paultry, ſenſeles, ſauſie Jacks:
That patch up wounds in poſt,
Trudg hence, truſſe up your pedlers
He cares not for your boaſt, (packs,
His face and brow from blot is cleer,
The Sages of our Soyle,
Bids Doctor Lowe, *ſtill welcome here*
To your great ſhame and foyle.
Who well deſerves, is honored much
As tryall daily ſhews,
Who hath good name, is wiſe and rich,
And loved where he goes.
Since of this Doctor and his Art,
Thoſe vertues I rehearſe,
I him in every point and part,
Salute with Engliſh Verſe.

Qd. Thomas Churchyard Eſquire.

In Commendation of M. Peter Lowe, *By* Anagram, Let Power.

MY ſimple Muſe too ſimple to recite,
A *Chorus* of thy Chirurgion prayſe,
Yet from my willing minde accept this myte
Fraught with affection and no frivoul phraſe,
Thy Booke, the beautie of thy brow bewrayes,
This worke, thy worth and never-dying will,
Thy true reported diſcipline diſplayes,
That learned ſcanſen of thy former skill.
Goe on rare *Lowe*, and uſe thy talent ſtill,
Grudge not, what ſpeech thoſe ſpitefull minds expels,
The Fates hath (*Let*) thee (*Power*) for to kill
Thoſe murmuring *Momus*, apt for nothing elſe,
Now may you end your old Chyrurgion ſtrife,
Lowes Lanterne can *Let Power* to your life.

Ad virum vertute & doctrina præſtantem, *Petrum Loweum*, Chyrurgiæ Doctorem.

Carmen Iambicum.

Sunt plurimi, quos eſſe ſplendidos juvat,
Alterius & ſuperſtites virtutibus
Clarere poſteris: Opus laudarier,
Dignumq́, creta ſcilicet notarier,
Sic proditur Vappa hominis & mens degener.
Sunt quos priorum inventa, clarioribus
Ditarier multum ſuis, juvat notis:
Opus mehercule laude dignus ſua.
Namq́, eſt boni quocunq́, vel juvamine
Bene poſſe: nec non velle poſteris bene,

Sed

Sed quid meretur ille, propia manu
Non qui addit inventis, sed invenit prior;
Solum furere, polum ferire vertice,
Nec non haberi vel humanus Deus,
Homo vel esse divus in omne seculum.
Hoc differens solum a Deo vivus, quod is,
Dum illustrat humani tenebras ingenii,
Perdurat idem neutiquam mutabilis:
At hic velut candela, quæ dum illuminat:
Nostros ocellos, proprio lumine deperit:
Post reliquum est: habemus hoc quod vidimus.
Tua ergo perge dare, ferefq; hanc gloriam:
Nec propriis vixit, nec obiit commodis.
Quod & fatentur ultrò & usq; prædicant
Qui vel tuum hoc videre opus chirurgicum:
Sic mortuo virtus alet famam tibi.

I. M. C.
V. Med. Doctor

Ad doctissimum virum *Petrum Loweum*, Chirurgiæ Doctorem.

C *Laudis in augusto præcepta volumine cuncta,*
Quæ Cons Hippocrates, *quæq;* Galenus *habet.*
Considet hic viridi lauro redimitus Apollo,
Delphicus illa suo protulit ore Deus
Sed latuit nimium thesaurus tantus: amicis
profer: & in medium progrediatur opus.

M. I. O. Chir. Parisi.

In

In librum chirurgicum *Petri Lovei* chirurgi Britanno Scoti carmen Encomiasticon.

Lectori.

ACcipe phæbeitam nobile munus alumni,
In lucem eximiæ, qui dedit artis opus.
Nocturna versato manu, versato diurna,
Hoc opus eximium Lector amice, præcor.
Nullus adhuc melius, morbos, medicamina, causas,
Et methodum docuit, artis Appollineæ.
Annos ante aliquot quæ Chirurgemata partu,
Fœlici peperit, parturit hæc eadem.
Ac multis auget numeris; genio, ingenio, se
Monstrat Chyrurgum, nomine, req; bonum,
Fœlix Ambrosio *quondam Gens Galla* Pareo,
Nilq; minus nostro Scotica gens Loveo.
Gratia magna suo debetur, lausq; labori:
Perpetuum auctorem nam manet inde decus.
Macte ergo virtute Petre, *hæc tua scripta tulerunt.*
Artis & ingenii clara trophæa tui.

Zoilo.

Dente Theonino, qui carpere cuncta; vel audes
Vel cupis hic dentem zoile frange tuum.

Jacobus Harvæus Serenissimæ
Reginæ Chirurgus Primarius.

The

The Names of the Authors, both Hebrues, Arabians, Greeks, Latines, and French, whose help I have used in this Work.

A

ABdales.
Adamus Lonicerus.
Ætius.
Ærastus.
Albertus Magnus.
Albucasis.
Alexis Pedomontanus.
Alexander Aphrodisiensis
Alexander Peripateticus.
Alexander Benedictus.
Alphonsus Ferreus.
Ambrosius.
Amatus Lucitanus.
Andreus de Bruell.
Andromius de Vinsor.
Antillus.
Antonius Benevenius.
Antonius Sebelicus.
Antonius Musa.
Anaxagoras.
Andreas Furnesius,
Apuleus Platonicus.
Archigenes.
Arculeus.
Aristoteles.
Arnoldus de villa nova.
Attilus.
Averroes.
Avicen.
Azaramius.

B

BAccanellus.
Bayrus.
Baptista Montanus.
Baptista porta.
Bartholomeus.
Barta Papillia.
Blemor.
Bodinus.
Brunus.
Bruensueck.

C

CAto.
Cardanus.
Capivaccius.
Celsus Aurelius.
Chelmetius.
Chiron,
Cicero.
Clemens Alexandrinus.
Columbus.

Constantinus.

Constantinus Africanus.
Constantinus.
Cornelius Agrippa.
Cornelius Celsus.
Cyreneus.

D

DEmocrates.
Dionisius.
Dioscorides.
Divus.
Dodoneus.

E

EMpedocles.
Evonimus.

F

FAllopius.
Fernelius.
Fiorouantus.
Franciscus Rosetus.
Franciscus Pedomontan.
Fuchius.
Fumanellus.

G

GAlenus.
Gellius.
Georgius Pistoreus.
Georgius Cufnerus.
Gordonius.
Gualterius Brant.
Gualterius Riff.
Guydo de Canliato.
Gulielmus de Saliceto.
Gulielmus Placentinus.

H

HAly Abbas.
Heliogabalus.
Henricus.
Henricus Rantzovius.
Herodotus.
Herophilus.
Hippocrates.
Holerius.
Homerus.
Hurnius.

J

JAcobus Divus.
Jacobus Dondus.
Jacobus Hoterius.
Jesus filius Hali.
Jahannis Frant.
Johannis Langius.
Johannis Lebot.
Johannes de Vice.
Johannis de Vigo.
Johannes Separionis.
Jubertus.
Justinianus.

Langfrancus.

L

LAngfrancus.
Laurentius.
Leonellus Faventinus.

M

MAgninus Mediolanenſis.
Marcus Antonius.
Marcellus.
Marcus Lepidus.
Macrobius.
Marianus Sanctus.
Matheolus.
Meſſalinus.
Meſues.
Menodotus.
Mizaldus.
Moſes.

N

NIcholaus Alexandrinus.
Nicholaus Abraham.
Nicholaus Leoniceus.
Nicholaus Monardus.
Nicholaus Myrepſus.
Noſtrodamus.

O

OLphanſius Ferreus.
Oribaſius.
Oriſis.
Orphe.

P

PAlmareus.
Paracelſus.
Pareus.
Parmenides.
Paulus Ægineta.
Petrus Hiſpanus.
Petrus de Argilla.
Petrus Franco.
Petrus Primandey.
Petrus Tuxiganus.
Petrus Angelus Agathus.
Philippicus Gavilonius.
Plato.
Platin.
Plinius.
Pithagoras.
Poſſidonius.
Primander.
Ptoleme.

Q

Querſitanus.

R

RAſis.
Rogerius.
Robertus Gropretius.
Rollandus.
Rondoletius.

Roſa

Rosa Anglicatia.

S

SArdinius.
Shelander.
Scribonius Largus.
Soranus.
Stephanus Grumlen.
Statias.
Synecius.
Sylvius.

T

TAngacius.
Tertullianus.
Thales.
Thesaurns Pauperum.
Theodoricus.
Theodorus.
Theophrastus Paraselsus.
Titus Livius.
Trallianus.

V

VAlerius Maximus.
Vezatius.
Viaticus.
Vickerus.
Vido Vidio.
Ulpianus.

Y

Ysidorus.

Z

Zenophanes.

A Discourse of the whole Art of CHYRURGERY.

By PETER LOVVE *Scottishman.*

This Discourse is divided into ten Books; the first whereof containeth 14. Chapters; whose contents be these.

Chap. 1. Of the Originall, antiquity, and excellency of Chyrurgery.
2. Of Chyrurgery in generall, the operations & instruments thereof.
3. Of naturall things in generall.
4. Of the Elements and consideration thereof.
5. Of the Temperaments and Complexion of mans body.
6. Of the four humors, in particular and generall.
7. Of Members, and parts principall of the body.
8. Of virtues and faculties, and whereof they proceed.
9. Of Actions, and operations of virtues.
10. Of Spirits, and whereof they proceed.
11. Of Age.
12. Of the entertainment of old age.
13. Of remedies to be used by aged people.
14. Of Colour, Figure, and Kinde.

CHAPTER I.

¶ Of the Originall, Beginning, Antiquitie, *and Excellency of Chyrurgery.*

Considering with my selfe, that all men are naturally obliged to serve the Commonwealth by some honest profession, and that no man is able to discharge that dutie and benefit to his native Countrey, except he learn in his tender age the Science wherein the ornament thereof consisteth; after full deliberation I

applyed my selfe to the study of Chyrurgery, which is by the consent of all learned men, not only a science very profitable and necessary to all sorts of people, but also most ancient and honorable, as manifestly testifieth all antiquity: in reading whereof we find the invention of Chyrurgery ascribed (for the excellency thereof) to the Gods themselves, to wit, to Æsculapius, Son of Appollo from the which Podalire & Machaon his Sons, learned the same and cured sundry and divers which were deadly hurt at the siege of Troy as reporteth Homer the Poet. Clemens Alexandrinus saith, that the first Operator was Mizram Son to Ham the Nephew of Noah, and after him Apis, and Orizis Kings of Ægypt, Cornelius Celsus saith, that it was found and exercised long before any other sciences. But passing with silence, Apollo, Æsculapius, Machaon, Podalire, & all that sort of gods as also Hippocrates, Galen, Pithagoras, Empedocles, Parmenides, Pimander, Democritus, Chiron, Pæon, Heraclides, Diocles, Caristus, Herophilus, Erastratus, Sanctus Cosmus, and Damianus two worthy Arabs, Mesues, Avicenna, Averroyes, Paulus, with infinite others Arabs, Hebrues, Greekes, and Latins, and all the ancient Philosophers, together with Alexander the Great, Josina the 9. King of Scotland, who lived before Christ 161. years, Marcus Antonius, and divers others, Emperors, Kings & Princes, which professeth the same, it is evidenly shewed unto us by the holy Scriptures and prophane Writers, like as by the writs of the learned, who professed the same, that the medicine, Chyrurgion with the medicaments was invented & approved by God himselfe, for in the 20. chap. of the 2. book of the Kings wee read how Esay healed, by Gods commandement, Ezechias by laying a figge on his biles and sores: as also in the 6. and 10. chap. of Tobias, how the Angell commanded him to slay a fish called Cassidill and to take the gaull thereof to the web of the eyes. In the 12. and 13. of Leviticus God commanded the Israelites when they entred in Caparnaum, that if there appeared any signes of leprosie, like as pustules

Medicines most ancient and honorable.

The Author of Chyrurgery.

Illiad. Lib. 12.

Gen. 6.

Chyrurgery was before all other Sciences.

Joshua King.

Chyrurgery invented by God.

2 King. 20. 7.

Tob 6 8 10. 11. 12 13.

Lev. 12. 13.

of divers colours upon the skinne, that such should bee brought before Aaron, and rejected for lepers, by such signes as is set downe in that chapter. But what, not onely was it invented by the divine power, but in like manner expressly commanded in the 38. chapter of Eccles. and divers other places, that the professors thereof should bee honoured by all men, for God created him to the effect that he remaine with thee to assure thee, and them which are with thee, and that thou defraud him not of his wages, for God created the medicines of the earth, and the wise will not disdaine the same: for hee gave this science to man, that hee may be glorified in his mervailous workes, for hee is the curer of all things. Now seeing I have sufficiently both by the scripture and otherwise proved the excellency of Chyrurgery, it is not needfull to compare the same with other Arts and sciences, for if any Art bee praised because it was and is professed of noble men, yee may clearely perceive that the Gods, Emperours, Kings, and Princes have practised the same. If wee consider the sentence of the divine Philosopher Plato, that things good are difficile, there is nothing harder then Chyrurgery, the which will occupy a man all his life time, to seek out the nature of things pertaining thereto. If things be praised for their strength and force, what thing is of more strength then to restore man to his health, which otherwise was altogether lost: some man may perchance object to mee and alleage, that many professors of Chyrurgery, with their charmes, hearbes full of poyson, and false promises destroy many people, who would easily have recovered their health if they had given no credit to such dissemblers. I answere, that such deceivers deserve and meritt to bee grievously punished, and banished out of all Countries, as I have said in my epistle to Chyrurgiõs. I read for the restraining of such abusers that the wise Jurisconsult Ulpian in the 50. and last book of the Digests expressly defended, that any baily governor of Province, or Judge, should choose, constitute, or licence any of our profession, but to leave that to the Doctors & Masters

Eccles. 38.1.

Chyrurgions esteemed by all men.

Johannes Nazerane filius mesue medi. morb. partic.

God cured all things.

Comparison of Chyrurgery with other Arts and Sciences.

Worthy men practised Chyrurgery.

The studie of Chyrurgery asketh long time.

Deceivers should be punished and banished.

Ulpian. lib. 50. digest.

Professors of Chyrurgery should be licenced only.

sters of each City, to chose the best experimented, to the end the Countrey & Cities may be the more safely with their families and friends committed to their charge. Justinian libro de gestis inhibits any to practise, but such as are lawfully admitted by the Masters of the Art. The sayd Justinian likewise sayth, that those of our profession were in such estimation, that their Wives and families were maintained in all liberty, & exempted from all publike charges, subsidies, tributes, imposts, watching, warding, riding in hosts, or inquests, and all other such common charges, which lawes are all yet observed in France, Italy, & divers other civill parts. Would to God it were so in this Isle, so God would be glorified, his Highnes subjects well served, and honest men relieved of great burden; as no doubt the best disposed doe so think. And so I end this Chapter of the Antiquitie and Excellency of the divine art of Chyrurgery.

Justin lib. de gest. cod 10. tit. 52.

Liberties and exemptions of Chyrurgions.

Chapter II.

¶ Of Operations, and Instruments of *Chyrurgery*.

Interloquutors, { Peter Lowe, *Doctore of Chyrurgery*, and John Lowe, *his Son*.

Pe. YEE might have perceived by my former Discourse, touching the originall of Chyrurgery, and the excellency thereof, the great desire I have to profit you therein, and to give good example to all those who would professe the same. In consideration whereof, I am determined to confer with you in that matter, seeing leisure doth permit mee, as also because I am mindfull to cause you to remaine in *Paris* for your further instruction, and passing of the degrees there accustomed in the said Art, for the which I will in these three Books following, as also in every generall chapter ensuing, set downe so briefly as I can, the forme and method

thod that the Doctors of Chyrurgery in *Paris* useth, in their first examination called the Examination tentative, where the Provost of the said Colledge, and six other Masters that hee will choose, will examine you exactly upon the whole grounds of Chyrurgery, according to the which forme I will begione and demand of you, in few words, the whole principall points of Chyrurgery: but according to *Cicero*, seeing all doctrine whatsoever which is grounded upon reason, should begin at the definition, to the end wee may the better understand that whereof wee entreat, first then will I ask of you what is Chyrurgery?

Form of examination at *Paris*.

Cicero lib. 1. Officio.

Jo. It is a Science or Art, that sheweth the manner how to work on mans body, exercising all naturall operations necessary to heale men, in as much as is possible by using of most expedient medicines. It is an old Greek word composed of the word *Cheir* which signifieth hand, and *Ergon* which signifieth operation. Yet no operation manall is comprehended under Chyrurgery, but such as is practised on the body of man for healing of diseases.

Pe. Why say you Art or Science?

Jo. Because it is divided into Theorick and Practick, as saith Hieronymus Mantuo.

Division of Chyrurgery, as saith *Hieronymus Mantuo.*

Pe. What is Chyrurgery Theorick?

Jo. It is that part which teacheth us by Rules onely the demonstrations, which wee may know without using any work of the hand, and therefore wee call it Science.

What Chyrurgery theorick is.

Pe. What is Practick?

Jo. It is that part which consisteth in operation of the hand, according to the precepts in healing infirmities, as Apposthumes against nature, biles, wounds, fractures, bones that be out of their naturall place, with divers other operations belonging to the work of the hand, as yee shall hear in the first Booke.

What Practick is.

Pe. Ere you goe further, let us know what is the subject of this Art?

The subject of Chyrurgery.

Jo. Mans body, which as Abdales the Sarracen sayth, the

the most divine and admirable thing in the world.

How the Chyrurgion should learn his art.

Pe. Seeing the subject is so excellent, it is necessary that the Chyrurgion bee learned and wise, as well for the preservation of sicknesse, as recovery of health.

Joh. It should bée so.

Pe. How ought the Chyrurgion to learne his Art?

Arist. prim. ethico.

Joh. Arist. The Prince of philosophers counselleth us to beginn at generall things, thereafter to procéede to things more particular, from easie and facile things, to obscure and difficile, as is observed in all other sciences.

The operations of Chyrurgey.

Pe. How many operations useth the Chyrurgion most commonly?

Joh. Five.

Pe. Which bee they?

1. To take away.

Joh. The first, is to take away that which is hurtfull and superfluous, as to take away tumors against nature, lups, cankers, warts, end such like; to draw the water out of the hydropickes; to take away a sixt Finger or Toe; to draw forth a child, being dead, out of the mothers wombe; to cut a Legg being gangrened or mortifyed, and such like.

2. To help and add.

Secondly, to help and add to nature that which it wanteth, as to put an artificiall eare, nose, or eye, a hand or leg, a platten in the roofe of the mouth, which is nédfull to those who by the Spanish sicknesse or like disease, have the roofe of the mouth falling, as is set downe in my treatise of the Spanish sicknes.

3. To put in that which is out.

The third, is to put in the naturall place, that which is out of his place, as to put in guttes, the Tawle, or Nett that covereth the guts, called the *Epiplon* or *Omentum*, after they bée fallen in the *Scrotum*, *Inguen*, or *Umbilicke*;

4. To separate.

to put bones in their own place, being out of joynt. The fourth, to separate that which is contained, as apostbumes, opening a vaine, scarrifying, applying of horsleaches, ventosies, by cutting the ligament under the Tongue, cutting two fingers growne together, by cutting the prepuce of the yard, by cutting the naturall conduit of women being closed naturally together, or else by accident, as oft chaneth after wounds,

ulcers,

ulcers, and such like. The fift, to joyne that which is separated, as in healing broken bones, bones that bée out of their place, healing of wounds, ulcers, fistuloes, and such like. 5. To joyne together.

Pe. What method is to bee observed of the Chyrurgion in working those operations? What method is to be used by the Chyrurgion.

Jo. First, to know the disease; next, to doe the operation as soone as may bée, surely and without false promises or deceits; to heale things that cannot bée healed: for there are some, who being voide of knowledge or skill, promise for lucres sake, to heale infirmities, being ignorant both of the diseases and the remedies thereof. These faults bée often committed of some, who usurping the name of Chyrurgion, being unwhorthy thereof, have scarce the skill to cut a beard, which properly pertaineth to their trade. Vagabonds and simple Barbers.

Pe. It seemeth by your words, that there are some infirmities pertaining to our Art, which are incurable.

Jo. There bée divers, like as Cancer occult, leprosie, elephanticke particular: also when the diseased refuse the remedie proper for the cure thereof, as to cut a member being mortified, to make incision of the hydropicke: and also when by the curing of the maladie, there ensueth a greater disease, like as to stay altogether suddainly the hemorods which have long runne, or any other naturall evacuation voluntary. (I saw in Paris a woman that had a flure of blood which flowed quarterly, sometime monethly, the which being stopped, shée dyed immediatly thereafter) to cut the varice in the leg, or else where, because the humor taketh the course oftentimes to some principall part, which is cause of death, also in healing the biles which come in the legges or armes, called *malum mortuum*. Diseases incurable. History.

Pe. What remedies then are most expedient to be used in those diseases?

Jo. Remedies palliative and preservative to let the evill that it encrease not, as wée shall intreate of each of them in their severall places. Remedies palliative and preservative are to be used.

Pe. To doe all those operations, what qualities are re-

quired of the Chyrurgion?

Celsus.

Joh. There are divers, and first of all as Celsus saith, that hée bée learned, chiefly in those things that appertaine to his art, that he be of a reasonable age, & have a good hand, as perfect in the left as in the right, that hée bée ingenious, subtill, wise, and tremble not in doing his operations, that hée have a good eye, and good experience in his art before hée begin to practise the same, also that hée have séene and observed of a long time of learned Chyrurgions, that he be well mannered, affable, hardie in things certaine, fearefull in things doubtfull and dangerous, discréte in judging of sicknesse, chaste, sober, pittifull, that hée take his reward according to his cure, and abilitie of the patient, not regarding avarice.

The qualitie which are required in a Chyrurgion.

A Chyrurgion should not be avaricious.

Pe. What conditions ought the patient to have?

Conditions of the patient.

Jo. Divers also, and first hée must have a good opinion of the Chyrurgion, that he have a good hope to be cured of him, to be obedient to his counsels, for that availeth much in healing of maladies, that he indure patiently that which is done for the recoverie of his health.

Pe. Which are the Instruments that the Chyrurgion ought to use in his operations?

Two sorts of Chyrurgicall instruments.

Jo. They are of two sorts, for some are common, others are proper; and the Instruments and remedies common, be also of two sorts, for some be medicinals, some be ferramentals.

Pe. Why doe you call them common?

Jo. Because they serve indifferently to divers parts, and may be used in all parts of the body.

Pe. Which are the medicinalls?

Good regiment.

Jo. They consist in ordaining good regiment in things naturall, unaturall, and against nature, in letting of blood, also in applying plasters, cataplasmes, lineaments, pouders, unguents, and such like.

Pe. Which be the Instrumentals ferramentals?

Handie instruments.

Jo. Some are to cut as rasors, some to burne as Cauters actuals, some to draw away, as tenals incisives, pincets, triballs,

tirballs, some are to sound, as to sound a wound, the Stone in the Bladder, and such like: some are to sowe wounds and knit Vaines and arteries, as needles.

PE. Which are the proper Instruments?

JO. Those which serve to one part onely, as in the head a trepan, with sundry other capitalls: in the eye an instrument called *speculum oculi* a needle proper to abate the Cataract: in the eare a squirt for deafnesse, or to draw forth any thing inclosed in the eare: some in the mouth as *speculum oris*, or *dilatorium* for convulsion: others are proper for the pluritie, others for the hydropsie.: some to draw the stone, which are made of divers fashions: some are proper for women, as *speculum matricis*, sundry are proper for the birth, as ye shall heare in my treatise of the sicknesse of women: some are for the sundament, as *speculum ani*: some for broken bones, and such as bee out of their place, as *machines, laks, glossocomes*, as is set downe by *Oribasius* in his booke called *Antidotarium*. Proper instruments. Oribasius in Antidotario.

PE. Which of those remedies are most necessary to bee had alwayes with him? Remedies that a Chyrurgion should have alwayes with him.

JO. *Arnoldus de villa nova* counselleth alwayes to have six to helpe in necessitie for things that are common: the first an astringent or retentive, to stay a bleeding or fluxion that commeth in any part: the second is *Basilicon*, to make matter in a wound or an Apostbume: the third, some cleansing Salve, as *Apostulorum* or *Diapeo*: the fourth, is to fill up a wound or bile with flesh that is hollowe, like as *unguentum aureum*: the fifth, is *cerat galen* or *rosat mesues* proper to appease a great dolour or heat which oft chanceth: the sixt, is called *Desiccativum rubeum*, or such like, to dry and cicatrize the Skinne. Arnoldus de villa nova.

PE. How many kinds of ferraments ought the Chyrurgion commonly to carry with him?

JO. Divers, as a paire of Shéeres, a rasor, pincets, a lancet, a sound, a tirball, a needle, and a cannon for needles.

Instruments

Instrumentts for a little case.

Pe. How many things are to bee observed by the Chyrurgion before hee undertake any operation?

Jo. According to Haly Abbas, there are five; the first, to know well the temperament of the patient; the second, hée must know the sicknesse and nature thereof: the third, whether it bée cureable or not: the fourth, remedies proper and méete for the disease: the fift, the right way to apply such remedies as bée needfull: of all those hée ought to give good reasons and authority, of such famous men as have written of this Science.

Haly Abbas in his Chyrurgery.

Things to bee known of the Chyrurgyon before he begin.

Pe. In how many things consisteth chiefly the contemplation of Chyrurgery?

Jo. In three things, according to Fuchius.

Pe. Which are they?

Jo. The first, are those things that concurr to the making and constitution of our body, and therefore are called things naturall. The second, are those things which conserve the body from sicknesse, and being rightly used, nourish the same: our ancieuts call them things unnaturall, because if they bée immoderatly and ill used, they bée altogether contrary to our bodies. The third, are those things indéede which are contrary to our bodies, and therefore are called things contrary to nature as Galen writeth.

Contemplative Chyrurgery.

Compendium medicinæ Fuchij.

Pe. Tell mee something more particularly of those contemplations of Chyrurgery.

Jo. I am content, if your leisure permit.

Pe. Then wee will in the next Chapter, proceed to naturall things.

2. Therapeut. & multis alijs. locis.

CHAPTER III.

¶ Of Naturall things in generall.

Jo. MAy it please you to prosecute the discourse of naturall things, séeing wée have already intreated of

of Chyrurgery in generall, of the operations and instruments Chyrurgicall.

Pe. I like very well of this method, then tell mee how many naturall things are reckoned by the Chyrurgion?

7 Naturall things are reckoned by a Chyrurgion.

Jo. Heaven; the first is called Elements. The second, is Temperament or Complexion. The third, Humors. The fourth Members. The fift, Vertues or Faculties. The sixt, the workes and effects of Vertues. The seaventh, Spirits.

Chapter IV.

¶ Of Elements.

Pe. SEeing, according to your former division of naturall things, Element is the first; then tell mee what is an Element?

Arist 5 metaph. cap. 3.

Jo. It is the most simple part whereof any thing is made, and in the destruction thereof, is lastly resolved.

Pe. How many Elements are there?

2 Sorts of Elements.

Jo. Two according to the contemplation of Chyrurgery, viz. simples or intilligibles, and composed or sensibles.

Pe. Which are the intelligibles?

Speculative Chyrurgery first observed by *Hippocrates*.

Jo. Those which are knowne only by speculation and judgement, the which was first observed by Hippocrates.

Pe. How many are they in number?

4 Elements. *Arist. 2. lib. de gen. & corrupt.*

Jo. They are foure, according to Arist. to wit, the fire, the ayre, the water, and the earth, the which have divers qualities, hott, colde, moyst, and drye.

Pe. Are these four Elements otherwise distinguished?

Another division of Elements

Jo. They are distinguished also according to their lightnes and heavinesse.

Pe. Which are the light?

Jo. The fire, and the ayre, and seeketh upward by reason of

of their lightnesse.

Pe. What are the heavie?

Jo. The water, and the earth; for by reason of their heavinesse, they move downwards. Heavie Elements.

Pe. Which are the sensible Elements?

Jo. They are similar or like parts of our body, as sayth Galen.

Pe. How many are they in number?

Jo. Twelve, to wit, the Bones, the Cartillages, Flesh, Nerves, Arteries, Pannicles, Ligaments, Tendons, Membraines, the Skinn, the fat Grease, the marrow; to the which similar parts, some add parts made of the superfluitie of our body, as the Haire, and Nailes, which are also profitable. Twelve sensible Elements.

Chapter V.

¶ Of Temperaments.

¶ *Wherein is shewed the Temperature of mans body, of every Nation: and four seasons of the year.*

Pe. What is Temperament?

Jo. It is a mixtion of the four qualities of the Elements, as sayth *Avicen*: or, as sayth *Galen*, it is a confusion or mixing of hott, cold, drie, and moyst. Definition. *Avicen.* *Galen. cap 1. de complexio.*

Pe. How many sorts of Complexions are there?

Jo. Two; to wit, well tempered and composed, or evill tempered.

Pe. What is temperament well tempered?

Jo. It is that which is equally composed of the four qualities of the Elements, of the which composition and substance among all naturall things, there is but one so tempered, which is the inner skinn of the hand, chiefly in the extremitie of the fingers, as sayth *Galen*, and is called *Temperamentum* Temperature equally disposed.

Lib.de Temperamentis.

peramentum ad pondus. There is another kind of this, called temperament *ad Justitiam*, which is according to Judgement.

Temperament *ad Justitiam*, what.

Pe. What is Temperament *ad Justitiam*?

Jo. It is that which is composed according to the exigence and dignity of nature, and is knowne by his operations, for when any thing naturally hath his operation very perfect, we esteeme it tempered *ad Justitiam*.

Evill temperaments.

Pe. What is temperament, evill tempered?

Jo. It is that, in which one Element governeth and hath dominion more than other, as the hot doth surpasse the cold, and so forth.

Pe. How many evill temperaments are there?

Jo. There are divers, which indeed passe not the limits of health, for some surpasse the temperate in one simple qualitie, some in two composed, and so forth.

Four simple qualities.

Pe. How many simple qualities are there?

Jo. Foure, as yee have heard, hot, drye, colde, and humid: in like manner there are foure composed, to witte, hot and drye, hot and humide; colde and drye, colde and humide, of the which *Galen* hath openly written.

Lib 1.artis parvæ.

Pe. What parts of our bodies are attributed to these qualities?

Galen, Lib.de ligamentis.

Jo. To the hot, wee attribute parts most hot in our bodies, as the spirit, the heart, the blood, the liver, the kidnies, the flesh, the muscles, arteries, vaines, skinne, and spleen. To the cold wee attribute the haire, bones, cartilage, ligaments, tendons, membraines, nerves, the braines, and the fat grease, the flesh, the paps, the stones, lights, liver, kidnies, marrow. To the drie, the haire, the bones, cartilages, membraines, ligaments, tendons, arteries, vaines, nerues, the skin. Nevertheless, some exceed others in these qualities, as you may perceive by their order: for it is necessary in healing wounds and ulcers, to know the temperature of every part, for other remedies are rather to bee used in hard and drie parts, than in soft and humid parts.

The temperature of our bodies in particular, and what temperature every one is of.

Robertus Gropretius reg.sanitat.

It is necessary for the Chy-

Pe. How

Pe. How are the foure qualities compared to the four quarters of the year?

Jo. The Spring time is hott and humid, most healthfull as saith Hippocrates, and continueth from the tenth of March, to the 11. of June. The Summer begineth at the 11. of June, and endeth on the 13. day of September, and is hott and drie. The Autumne or harvest from the 13. day of September unto the 13 of December, and is cold and dry, very unhealthfull, sickly, the which sicknesses if they continue till Winter, are most dangerous. The Winter from the 13. day of September untill the 10. day of March, is cold and humide: in this time of the year, men eat much, ingender aboundance of crudities, of the which commeth divers sicknesses.

rurgion to know the temperature of the patient. Comparison with the four Quarters of the year. *Aphorif. 19. & prim. de natura humana.* Sicknesse in Autumne very unhealthfull. *Petrus Tuxiganus de regi. sanitate.*

Pe. How many wayes know yee the temperature of mans body?

Jo. Five; to wit, by the constitution of mans body; by the operations and functions; by the Countryes wherein men are borne; by the colour; and by the age which being all well considered, wee may judge of every mans complexion.

Five wayes to know mans temperature.

Pe. How know you the temperature of mans body by the constitution?

Jo. Galen sayth, those which are fatt be cold, like as fattnesse is ingendred of a cold habitude: those that bee grosse and full of flesh bee hott, because much flesh is gendered of great aboundance of blood, as sayth *Avicen.*

Lib. de temperamentis cap 6. To know the temperature by the constitution. 1 *Treatise. cap. 1. Galen Lib. 1. de temperam. cap. 6.*

Pe. How know you the temperature of mans body by the operations?

Jo. Galen saith, that any creature, plant, hearb, is of a good temperature when they doe well their functions naturall.

Pe. How by the Nations and Countries know you the temperature?

Jo. The people towards the South are melancholique, cruell, vindicative, allwayes fearfull, they are subject to madnesse

The constitution of those towards the South.

Lib 2. de temperamen cap. 6.

They are subject to *Venus* games, and why.

A thousand Wives.

Bodin.

They are very temperate.

The complexion of the people towards the North, cold and humide.

They of the North are strong and cruell.

They are good drinkers.

Subject to jealousie.

Laborious men towards the North.

nesse and furiousnesse, as often chanceth in the Realme of Fez, Morruecos, Affricke, Ethiopia, and Ægypt, where there is a great number of mad men; they are also subject to leprosie, chiefly in Ethiopia; they be leane, pale coloured, black eyed, and are hott by the naturall ayre, and as *Galen* saith, they are also subject to Venus games, because of the melancholique spumous humor, which is the cause that the Kings of Affrica, Ethiopia, and Ægypt, have had at all times a great number of Wives, and Concubines: so that some have had three hundred or foure hundred, some a thousand, as reporteth Bodin in his common-wealth: they are subject to the falling sicknesse, scrofuls and fever quartaine; yet they are wise, modest, and moderate in their actions: they are also proper for the contemplation of naturall and divine things, they have little interiour heate, and for that cause are very temperate, because they cannot digest much meate. So wee may say, that those people being subject to greatest sicknesse and vices, are also adorned with great vertues, where they are good. The people towards the North are colde and humide, neither so wicked and deceitfull; they are faithfull and true, yet because they are of a grosser wit and more strength, they are more cruell and barbarous, they have greater force and are stronger by reason of their thicknesse and coldnesse of blood: they bee very couragious, for the great aboundance of blood, & of smaller judgement: they have great heat in their interior parts, and therefore eate well, & drink better, which is an unhappie vice: They are high in stature, great bodyed, more beautifull than those of the South, lesse given to the lust of the flesh, & lesse subject to jealousie, which is a cõmon vice to the people towards the east, as the Greeks and Turkes; or West, as Spaine, and such like Countries, but principally the people of the South, from whom is come the use to geld men, whom they call Eunuchs, to keepe their Wives. Moreover, they who are toward the North, are more laborious, and given to arts mechanickes, and more proper for warres, than Sciences. The people betwixt the

South

South and the North, as Italie, France, and such like, bee almost of the Northern peoples, temperature, but somewhat hotter: they have lesse internall heat and force than the Northern people, but more than they of the South, & therefore decide their quarrells oftener by reason, than force. Yet it is certaine, that those of the West draw more to the qualities of those of the North: like as those of the East to the conditions of the South.

The complexion of those of the West and East.

Pe. How know you by the colour, mans temperature?

Jo. Galen saith, those which are of colour somewhat red, yellow, or blew, be of a hot temperature; those which are black, white, or lead colour, are of a cold complexion: otherwise be the four colours, red yellow, black, and white; the red is ordinarily sanguine, the black melancholick, the yellow collerick, and the white phlegmatick.

Galen de Sanitate tuenda.

Pe. How know you mans temperature by the age?

Jo. Forasmuch as there is a particular of the age, we will deferr it till we come to that Chapter.

To know the temperature by age.

Pe. By what outward markes know you every mans complexion?

Jo. He of the sanguine complexion is fleshly, liberall, loving, amiable; gracious, merry, ingenious, audacious, lubrick, given to Venus game, red coloured with divers other qualities, which sheweth the domination of the blood, and it is hot and humide, and is in good health in Summer and in Winter by reason of his humiditie.

The Cholerick is hastie, prompt, and in all his affayres envious, covetous, subtil, hardie, angrie, valiant, prodigall, leane, yellow coloured, and is hot and dry, and is in good health in Winter.

The Flegmatick is fat, soft, white skinnie, slothfull, dull of understanding, heavie, much spitting, and white coloured: finally his temperature essentiall or accidentall is cold and moyst, and in good health in Summer.

The Melancholick which is either by native or accident of colour, livide, and plumbine, solitary, coward, fearfull, sad

Envious, Curious, Avaritious, Lean, Weak, Slowe, and so forth: moreover, Cold, and Dry, and are well in Harvest: as touching the complexion of every Age, you shall hear in the Chapter of Age: and as for the complexion of every part of the body, you shall hear in the poor mans guide.

Chapter VI.

¶ Of Humors.

All sicknesse proceedeth of some humors.

What humor is.

Pe. THou knowest that the most part of all sicknesses proceedeth and are entertained by some Humor, and sometime by sundry humors together; therefore it is most necessary that the Chyrurgion know perfectly the humors of our bodies, to the end hee give the better order for the curation of Maladies: then tell mee, What is an Humor?

Jo. It is a thinn substance, into the which our nourishment first is converted: or it is a naturall Juice wherewith the body is entertained, nourished, or preserved.

Whereof humors doe proceed.

Pe. Whereof proceedeth the Humors?

Jo. Of the juice or Chile which is made in the stomack, of the aliment wee are nourished with, changed by the naturall heat of the stomack and parts nier thereof: thereafter brought by the veines *Meseraikes* to the Liver, and maketh the four Humors which differ in nature and kinde.

There are 4. humors.

Pe. How many Humors are there?

Jo. There are four, which represent the four Elements, as well by the substance, as qualities, whereof every thing is made; *Galen* calleth them the Elements of the body.

Pe. Which are the four Humors?

Jo. The Blood, the Flegme, the Choller, & Melancholy.

Pe. What

Pe. What is blood?

Jo. It is an Humor hot, aerious, of good consistance, red coloured, sweet tasted, most necessary for nourishment of the parts of our body, which are hot and humide, ingendered in the liver, retained in the vaines, and is compared to the ayre, as saith *Galen*. The blood nourisheth the body. 2. *De placitis.*

Pe. What is Flegme?

Jo. It is an Humor cold and humide, thinn in consistance, white coloured, when it is in the vaines it nourisheth the parts cold and humide, it lubrificth the moving of the joynts, and is compared to water.

Pe. What is Choller?

Jo. It is an Humor hot, and drie, of thinn and subtill substance, black coloured, bitter tasted, proper to nourish the parts hot, and drye, it is compared to the fire. *Trallianus, lib. 7 cap. 16.*

Pe. What is Melancholy?

Jo. It is an Humor cold and drye, thick in consistence, sower tasted, proper to nourish the parts that are cold and drye, and is compared to the earth, or Winter.

Pe. How many sorts of Blood are there?

Jo. Two, Naturall and Unnaturall.

Pe. How many wayes degenerateth the Blood from the Naturall?

Jo. Two wayes; first by some alteration or transmutation of the substance, as when it becommeth more grosse and more subtill than it should be, or else by adustion, when the most subtill becommeth in Choller, and the most grosse in Melancholy. The blood degendereth two wayes.

Secondly, through unnaturall proportion and ordill mixtion with the rest of the Humors, and then it taketh divers names: as for example, if with the blood there bee abundance of Pituita such is called Flegmatick, if the choller exceed the Chollerick; and so forth in the rest. Whereof every humor doth proceed.

Pe. How many sorts of Flegme are there?

Jo. Two in like manner, Naturall and Unnaturall.

Pe. How many kindes of *Pituita* unnaturall are they?

2. De differentiis febrium. Cap 6.

Jo. According to *Galen* there are four sorts; the first called *Vitrea*, because the Humor is like unto melted glasse, it is cold and proceedeth of gluttony and idlenesse, it provoketh to vomit, causeth great pain in the parts where it falleth, as on the teeth, and Intestines.

The second, is called the swete Flegme, because in spitting of it, it seemeth swet, it provoketh the body to sleep.

The third, is called bitter Flegme, because in spitting, it seemeth bitter, it is cold and maketh the body hungrie.

The fourth is salt Flegme, it maketh the body drie and thirstie. There are some who make another kind called *Gipsei*, because of the forme and hardnesse it hath like Lyme called *Gipsum*: It is often in the joynts and is reckoned under *Vitrea*.

Pe. How many sorts of Choller be there?

Two Sorts of choller, naturall and unnaturall.

Jo. Two in like manner, Naturall and Unnaturall.

Pe. How many wayes becommeth the Choller Unnaturall?

Jo. Two wayes; first, when it spilleth, rotteth, and is burnt, and then it is called Choller *Adust* by petrefaction. The other is made of the mixture of the other Humors.

Pe. Into how many kindes is it divided?

Tractatu de at. a bile & multis aliis locis.

Jo. In four, as sayth *Galen*. The first, is called *Vitellin*, because of the colour and thick substance: It is like the yolk of an egge, it is ingendered in the Liver and vaines, when by the unnaturall heat it doth dissipate and consume.

The second, is called *Verricuse*, because this colour representeth a Wart called *Verruca*.

The third, is called *Eruginus*, because it is like the rust of brasse or copper called *Ærugo*.

The fourth, is called the blew Choller, because it is blew like *Azur*. These three last Humors, as saith *Galen*, are ingendered in the stomack by victous meats, and evill juice, which cannot be digested and converted into good juice.

Pe. How many sorts of melancholick are there?

Jo. Two, Naturall, and Adust.

Pe. How

Pe. How many kindes of unnaturall or adust are there?

Jo. Two, the first is that whereof commeth the Humor Melancholicke, which is like the lee of blood when it is very hot and adust; or by some hot Fever, that the blood doth putrifie, as sayth *Avicen*, and differeth from the naturall Melancholicke, as the dreggs of Wine burnt, from the unburnt. *Galen* saith, that Humor which is like the lees of Wine, when it becommeth more hot, it ingendreth an Humor against nature called *Atra bilis*, of the which no Beast can taste. 14 Method.

Pe. Knowing these four humors and their generations, wee must know in like manner, that in our bodies there is concoction; therefore tell mee how many kinds of concoctions are there?

Jo. There are three, as saith *Johannes Bacchanellus*. The first is made in the stomack, which converteth the meat we eate into the substance called *Chile* in the which the four humors are not, but potentially. The second is done in the Liver, which maketh of the *Chile* the masse Sanguinary, as saith *Galen*. The third is made through all the body, of which are ingendered the four humidities, which the Arabians call humors nourishing, or Elementaries, as saith *Avicen*. The first hath no name, and is thought to be the humor which droppeth from the mouth of the vaine. The second is called *Ros*, the which after it is drunken into the substance of the body, it maketh it humide, whereof it taketh the name. The third is called *Cambium*. The fourth is called *Gluten*, and is the proper humiditie of the similar parts. *Lib de concensu med.* 4. *De usu partium.* 2. *Cano. cap.* 1.

Pe. Have not these humors a certain time in the which they raign more than other in mans body?

Jo. Yes indede; for the blood raigneth in the morning from three houres untill nine: in like manner in the spring time the Choller from nine in the morning until three in the afternoon, as in Summer; the Flegme from three in the after- What time every humor raigneth.

afternoon untill nine at night, as in autumn : the melancholick, from nine at night untill three in the morning, like as in winter, and this is the opinion of *Hippocrates* and *Galen* as touching humors. Such things being well understood, yee may know what humor raigneth in the sick, and what time he shall be most grieved

Chapter VII.

¶ Of Members and Parts.

The definition of members. *Avicen.*

Pe. WHat call you Members or Parts?

Jo. Avicen speaking of Members sayth, they are bodies ingendered of the first commixtion of humors.

Pe. How many sorts of Members are there?

Jo Five, of the which the first is called principalls. The second, are Members that serve the principall Members. The third, are Members that neither govern, nor are governed of others, but by their own proper virtues. The fourth, are Members which have proper virtues of themselves, and also of others. The fift, is called Members excrementals, and not proper Members, as others.

Pe. How many principall Members are there?

Jo. Amongst the parts of the humane bodie there are found four, which are most chiefe and principall, to wit, the brains, the heart, the liver, and the testicles. The first three are called principalls, because by them all the body is governed, and without them men cannot live. The fourth, which are the testicles, is called principall, because without them men cannot be procreated, saith *Galen*.

Pe. Which are they that serve the principall Members?

Parts serving the principall members.

Jo. The nerves serve the brains; the arteries the heart; the instrument Spermaticks, the testicles: by the Nerves the spirit *Animall* is carried through all the body; the spirit

Vitall

Vitall is carried by the Arteries; the Vains serve to carry the Blood through all the body, as also to bring the *Chile* to the Liver: the instruments Spermatick for the bringing and casting forth of the Seed.

Pe. Which are the Members which neither governs, nor are governed of others.

Jo. The Bones, the Cartilages, Membrains, Glands, Tendons, Ligaments, Fat, simple Flesh, and so forth.

Pe. Which are they that have proper virtue of themselves, and also of others.

Jo. The Belly, the Kidnies, and the Matrix.

Pe. Which are the Members called excrementous?

Jo. The Nailes, and the Haire.

Pe. Are the Members no otherwise divided?

Jo. They are divided into two parts, similars and dissimilars.

Pe. Which are the parts similars?

Jo. The Bones, Nerves, Flesh, and so forth, which are so called, because the least part of them hath the same name that the whole hath.

Pe. Which are the parts dissimilars?

Jo. The Eare, Eye, Legg, Hand and Foot, &c.

Pe. Why are they called dissimilars?

Jo. Because when they are divided, they lose the name of the whole, as the Membrains of the Braines are not called Braines, nor the Membraines of the Eye, the Eye; and so forth in other dissimilar parts.

Members which have proper virtue of others and also of themselves.

Galen de differen. morb. ca. 3.

CHAPTER VIII.

¶ Of Virtues.

Pe. WHat call you Virtues?

Jo. They are the cause whereof proceeth

Lib. 1. de facultatib. naturalib.

the actions or powers, as saith *Galen.*

PE. How many Virtues or Faculties are there?

JO. Three; to wit, Animall, Vitall, and Naturall, which have a certain simpathy one with another, for if one be hurt, all the rest suffer with it.

PE. What is Animall?

JO. It is that which commeth from the Brains, and sendeth the sence and moving through all the body by the Nerves.

PE. How many sorts of Virtues Animall are there?

JO. Three; to wit, Motive, Sensitive, and Principall.

PE. Wherein consisteth the Virtue Motive?

JO. In the Instruments that move voluntary, as the Muscles and Nerves.

PE. Wherein consisteth the Virtue Sensitive?

JO. In the sences externall and internall.

PE. Into how many parts is the Virtue Sensitive externall divided?

Sensitives externall, divided into five.

JO. Into five; Seeing, Hearing, Tasting, Smelling, Feeling.

PE. What is the Virtue Sensitive interior?

JO. It is a virtue that correspondeth to the five externall virtues, by one Organ only, and therefore is called Sence common.

Wherein the virtue principall consisteth.

PE. Wherein consisteth the Virtue Principall?

JO. In Imagination, reasoning, and remembring.

PE. May those Virtues bee divided severally one from another?

JO. Yes, because one may be offended without another, which sheweth them to have divers seats in the Brain particularly.

PE. What is the Virtue Vitall?

JO. It is that which carrieth life through all the body.

PE. How many sorts of Virtues Vitall are there?

JO. Two; to wit, Virtue Vitall Active, that is, in doing operations:

operations: and virtue vitall passive in suffering operations.

Pe. What is the Virtue Active?

Jo. They are those virtues which dilateth the heart, and arteries, as chanceth in mirth and love.

Pe. What is Virtue Passive?

Jo. They are those virtues which constrain and bind the arteries and heart, as happeneth in melancholick, sadnesse, and revenge.

Pe. What is the Virtue Naturall?

Jo. It is that which commeth from the liver, and sendeth the nourishment through all the body.

Pe. Into how many parts is it divided?

Jo. Into four: the first, in attraction of things proper: the second, in retaining that which is drawn: the third, in digesting that which is refrained: the fourth, in expecting that which is hurtfull, and offensive.

Pe. Doe all these Virtues doe their operations at once?

Jo. No; for first attraction is made, then retained untill perfect digestion be made: lastly, virtue expulsive, casteth forth all things hurtfull to nature.

Chapter IX.

¶ Of Actions and Operationr of Virtues.

Pe. WHat call you the Actions of Virtues;

Jo. They are certaine affections or movings actives, proceeding of virtues.

Pe. How many sorts are there?

Jo. Three, like as Virtues Animall, Naturall, & Vitall.

Pe. Seeing the difference is not great betwixt Virtues and operations of Virtues, it is superfluous for the present to insist further in that matter?

Chap.

Chapter X.

¶ Of Spirits.

Definition of Spirits.

Pe. WHat are Spirits?

Jo. They are a substance subtil & aerious of our body, bred of the part most pure and thinn, of the blood sent through all the body, to the effect the members may doe their proper actions.

Pe. In what part of our bodies abound they most?

Andreas de Lorrain.

Jo. As saith *Andreas de Lorrain* they abound in the heart and arteries, in the braines and Nerves.

Pe. How many sorts of Spirits are there?

Jo. Three; Animall, Vitall, and Naturall.

Pe. What is the Spirit Animall?

Jo. It is that which remaineth in the braines, of which a great part is sent to the eyes, by the Nerves optickes, some to the eares, and divers other parts, but most to the eye: therefore those who have lost their sight, have their other virtues more strong, the wich caused *Democritus* and other Philosophers to put out their eyes, to the end their understanding might be more clear.

Democritus put forth his eyes, & why?

Pe. Is the Spirit Animall brought through all the Nerves substantially.

Jo. No, but ouely by the Nerves optickes, because they have manifest hollownesse, and not the rest.

Pe. What is the Spirit Vitall?

Jo. It is that which is in the heart & arteries, and is made of the evaporation of the blood, and of the aire, laboured in the lights by the force of vitall heat, and thereafter is diffused through the members for the conservation of the naturall heat

Pe. What is the Spirit Naturall?

Jo. It

Jo. It is that which is ingendered in the liver & vains, and there remaineth while the liver maketh the blood and other naturall operations. The use of it is to help the concoction: and there be four things which be annexed to those naturalls, which are Age, Colour, Figure, and Kind.

CHAPTER XI.

¶ Of Age.

Pe. SEeing, heretofore wee have discourſed of things naturall and their number: it ſhall bee needfull in this place to ſpeak of ſuch things as are annexed to naturall things, beginning at Age which is the firſt: So I will demand of you what is Age?

Jo. It is a ſpace or part of our life in which our bodies are ſubject to many mutations.

Pe. Thou knoweſt that all things which are created, if they bee materiall, ſhould have an end, and that there is nothing under the heavens, except the ſoule of man, but it is ſubject to corruption and change, as all the Philoſophers grant, like as *Ariſtotle*, *Hippocrates*, and *Galen* doe teſtifie; and it is certain, that wee from our birth are ſubject to divers alterations: therefore tell me into how many divers apparent mutations have our ancients divided the life of man?

Ariſt. de longitud. & brevit. vitæ.
Hippoc. lib. 1. De diæta.
Galen lib. 1. de ſanit.

Jo. In that there is found very great controverſie: For the *Ægyptians*, and *Pithagorians*, were ſo ſuperſtitious, that they did publiſh by their writs, & were of opinion, that there were ſo many Ages as there were ſignes in an hundred yeers, thinking thereby a man to live only a hundred yeers, and that every ſeventh yeer we ſhould perceive ſome notable change, beſides the particular change of every ſigne both in the temperature of the body, and manners of the minde. Yet I am of opinion, that Age ſhould not be divided according

The *Ægyptians* and *Pithagorians* opinion concerning mans life.

ding to the number of the years: thinking that hereupon should either depend youth, or old age; but rather after the temperature of the body: for old men that are cold and drie may be termed old; so there be many old folks of 40. years, and divers who may be thought young of threescore. There be some complexions that ware soone old; in other later: these of the sanguine complexion be long in growing old, because they have much heat and humiditie. The Melancholick wareth soone olde, because they be cold and drie. As touching the Feminine sexe, it becommeth sooner old than the Masculine. *Hippocrates* reporteth that women in the Mothers womb are formed in seven Moneths, and grow slowlier than men; but being borne, doe grow faster, and become sooner wise, old, or failed: for the feeblenesse of their body, and fashion of life, being for the most part idle: and there is nothing that bringeth sooner old age, than idlenesse and want of exercise.

Hippocrates de partu.

Pe. Is mans age no otherwise divided amongst the olde Writers?

Ploto and *Pithagoras* opinion of Age.

Jo. Amongst the old Philosophers there be sundrie opinions. Plato affirmeth man to live fourscore and one years; Pithagoras only fourscore, and did divide them in twenties, comparing the ages to the four times of the year: to wit, the Spring-time, to child-hood: the Summer, to youth: the Autumn, to man-hood: and Winter, to old age.

Varro divided age five waies.

The Philosopher Varro did divide age five wayes, to wit, child-hood, to fisteen years: from fisteen to thirty, young men: from thirty to forty-five, men: from that to threescore, old men: from thence, they be termed very old.

The opinion of the Ægyptians and Alexandrians.

The *Ægyptians* and *Alexandrians* were of the opinion, that men did live according to the encresing and diminishing of the heart, thinking the heart to grow till fifty years, and that every year it did augment two dram weights: and after fifty years, did ever diminish, till in the end it became to nought: Which opinion I doe not approve, because I have opened (sundry) very old people, in whom I have

have found the heart as big and heavie, as in those of younger age.

The learned Philosopher and mediciner Staseas, was of opinion that men should not live long, by reason of the sundry chances of fortune and doubtfull health of their bodies, for he sayth, wee ought onely to live so long as the commodities of our life be more in number, than the discommodities thereof. *Staseas opinion of mans age.*

Pithagoras and Cicero did both accuse Nature, for giving of long life to Crowes and Harts, who were unprofitable creatures, and so short to men: To the which the Philosopher Possidonius doth agree, and sayd, that one day of a learned mans life is better than never so long of an ignorants: some doe adde another kinde of old age called *Senium ex morbo.* *Pithagoras & Cicero de senectute.* *Possidonius opinion.*

The most part of our late Writers are of opinion, that the naturall course of our life indureth five spectall mutations, which they doe call ages, to wit, Infancy, Adolescency, Young age, Mans estate, and old Age: the infancy is hot and humide, but the humiditie surpasseth the heat, and lasteth from the hour of our birth till thirteene yeares, and is governed by the Moon as saith Ptolomeus: In this time man is subject to many griefes and diseases, like as Fevers, Flures, Wormes in the belly, the Stone, Apostumes, and sundry others. *1. Age governed by the Moon.*

The Adolescency is hot and humide, but the heat begineth to surpasse the humiditie: the voice begineth to grow great in men, and paps in women, and it lasteth to twentie five yeares, which is the time prefixed for growing in height, in this time men incurre many diseases, chiefly the Statick, as saith Gordon, and is governed by Mercury who formed the manners and wit. *2. Age hot and humide, governed by Mercurie.* *Gord.*

The third age is youth, which is hot and drie, but more hot than drie, and lasteth till thirtie and five yeares, and is subject to hot feavers, frenzies, with sundry other diseases, and is governed by Venus, and ingendreth great cupiditie of lust. *3. Age hot and drie, governed by Venus.*

The

4. Age temperate governed by the *Sunne*.

The fourth, is mans estate, most temperate of all, and lasteth till fifty years, and neither augmenteth nor diminisheth: in this time men are subject to hot Fevers, Fluxes of Blood, Pluresie, Lythargie, Phrensie, and such like, and is governed by the Sunn, Author of wisedome and gravity.

1. Then commeth old age, which lasteth the rest of our life, and may be divided into three. The first, called green age, which is prudent and full of experience, fit to govern Common-wealths, and lasteth to seventie years, and is governed by Jupiter, Author of wisedome and counsell.

2. Then beginneth the second part of old age, accompanied with divers little inconmodities, the heat then almost decayeth, and is cold and drie, like plants which doe become rotten and decayed: in this time man is subject to many diseases, as Epilepsie, Lithargie, Numnesse, and such like, as *Gordon.* saith Gord: and is governed by Saturne, then they be full of sloth, dull, froward, and uneasie to be governed.

3. Lastly, followes the third part of old age, which is called *Decrepit*, unto the which (as saith the royall Prophet) happeneth nothing but griefe and sorrow. All the actions both of body & spirit are weakened, the feeling groweth remisse, the memory decayeth, and the judgement faileth: so returneth to infancy, whence precedeth the Greek Proverb, *Bis pueri Senes.*

Eccle. cap. 12. This last age is set down in *Eccle.* 12. Be thou wise Salomon. With such a brave Allegorie, that nothing in the world can be found so excellent, for the which I shall set it down at large in this place.

The Allegory. Have minde (saith hee) of thy Creator in the dayes of thy Youth, or in the dayes of adversity: Come, while the Sunne is not darkened; nor the Moon; nor the Starres; nor the Clouds retune after the raine: When the keepers of the house shall tremble, and the strong men shall bow themselves; and the Grinders shall cease, because they bee few in number; and they shall waxe darke which look out by

the

the windowes; and the dores shall bee shut without, because of the base sound of the grinding. And all the daughters of Singing shall bee abashed, also they shall bee affraid of the high things: And fear shall bee in the way: And the Almond Tree shall flourish: And the Grashopper shall bee a burthen: and concupiscence shall bee driven away: while the Silver cord is not lengthened, nor the Golden Ewer broken: nor the Pitcher broken at the well: nor the Wheele broken at the Cesterne, and Dust returne to the earth as it was, and the Spirit to God that gave it.

This is the true description of the last age, which is admirable, and required a good Anatomist to expound the same; the Allegory followeth. Have mind (saith he) of thy Creator in the dayes of thy Youth, while the Sunn is not darkened: that is to say, while the eyes have not lost their sight nor the Clouds return after the raine, which is, when the eyes hath long wept, there passeth before them grosse thick Vapours like Clouds. When the Keepers of the house shall tremble: which is when the Armes & Hands which are given for the defence of man, are failed. And the strong men shall bow themselves: which is, the leggs whereupon the whole body stands, doth bow and becommeth weak. The Grinders shall cease: that is, the Teeth which breaketh and grindeth the meat, shall be decayed. And they shall war dark which look out by the Windowes: that is, when the Eyes are overwhelmed with some cataract or taye which covereth the prunall, called the window of the Eye. The Dor shall bee shut without, by the base sound of the grinding: that is, the Chapps and Lips which cannot well open, and the Channells whereby the meat doth passe, groweth narrow. And he shall rise at the voice of the Bird, that is, old people cannot sleep, but doe rise at the crow or calling of the Cock. And all the daughters of Singing shall bee abased: which is, when the voice doth decay. The Almond Tree shall flourish: that is, the head and Beard of all people becommeth all white. The Grashopper shall be a burthen: which is, when the legges groweth

The explication of the Allegory.

groweth great, swelling, and tumified with abundance of cold watery humors. Concupiscence shall be driven away: which is to say, old people shall have little or no appetite to meat. When the Silver cord is lengthened: that is, when the marrow that goeth along the back groweth supple, and boweth the back forward. When the Golden Ewer is broken: that is, the heart which containeth the arteriall blood and vitall spirits shall be weakened. The Pitcher broken at the fountain: that is, the great vaine Cave, that may no more shoot blood from the liver, which is, the Spring that humecteth the whole body in such sort, that it serveth no more than a broken vessell. The wheel broken at the Cestern, that is, the Nerves and bladder doth grow so weak, that they can no more retaine the water. When all these things do arrive, the dust returneth to the earth as it was, which is, when the materiall body returneth to the earth: and the Spirit shall turn to God that gave it. These be the best descriptions that can be given of old age, with their times and yeers, according to the opinion of our ancients.

CHAPTER XII.

¶ Of the entertainment of old age.

Pe. BEing earnestly requested by some of my friends, (who are aged and sickly) to prescribe some forme of regiment for the better entertainment of their life, which I am willing to doe, although it bee more medicinall than Chyrurgicall: Yet in respect of their intreatie, and the great number of aged people in their Countries, who may not at all times have the counsell of the learned: for the which cause I thought good to speak some thing briefly of that matter:

matter : And therefore I will demand of you, how many principall rules were necessary to bee observed by old people in their dyet ?

Jo. Eight.

Pe. Which bee they ?

Jo. The first is, that they never eat till they find some little appetite, for then meat is most agreeable to the stomack, and will better digest the evill meat having some appetite, then the best meat having no appetite, as at length is set down by Hippocrates. *Lib 2. Aph. 38.*

The second rule is, that the meat should be well sodden and chewed before it be let down, otherwise it chargeth the stomack too much, and troubleth the concoction, not being cut small with the teeth or knife, which being done, advanceth the first digestion. This is the reason that they that have many teeth live long, as saith Hippocrates. *Lib. 2. epid. sect. 6.*

Thirdly, they must be very wary to overcharge their stomack, but ever rise from the table with appetite to eat more, for in over much charging the stomack, the naturall heat is weakened. Hippocrates saith, a man should never eat till he be full, neither busier to exercise ; for moderate travell excitates the naturall heat: so, very necessary for all people to be used before meat. *Petrus Luxiganus. 6. epid.*

Fourthly, that they eat only of one or two sorts of meat at once, otherwise it troubleth the stomack, for all meats are not of one qualitie, and some digest sooner than other : besides, the eating of divers meats and sundry sawces, provoketh much drink, which is an hindrance to the digestion, as saith Hippocrates, Plutarch, Plinius, and Macrobius, who were of opinion, that one sort of meat is best, and of most easie digestion. *Petrus Luxiganus de sanit. Plutarch, Plinie, Macrobin. 6. epid. 3. Sect.*

Fifthly, there ought an order to be observed in eating, and those meats that digest eastest, should first enter into the stomack, like as pottage, prunes, and such other, as hath the virtue to loose the belly ; grosse and rude meat should last be taken.

The first, they shall eate more at supper than at dinner; provided, they bee not subject to catars, and distillations, and that because there is more time betwixt the supper and dinner, than between dinner and supper, to digest and distribute the aliment through the body: for certain it is, in keeping the heat retyreth to the center, so it digesteth the better: besides, all digestion would have rest, and so it digesteth the better.

Seventhly, that which they eate should be of good nourishment, and easie of digestion, abstaining from all grosse, viscous, windie, flegmatick, and melancholique meates, by reason old people having the naturall heat cold, dissipate not the grosse superfluitie easily.

Eightly, that they be nourished oft and little at one time, which is meet to be observed both by old and young, as is at larg set down by Galen, speaking of Antioch medicitner, and Telephus grammariour. According to those rules, we finde the old mediciners, as Hippocrates, Galen, and Avicen have ever practised. Galen remarketh that the Athlits eate flesh never but at night. Aristoxenus writeth, that the Pithagorians eate only at dinner a little bread and honie. Philemon the old writer saith, that the Greek souldiers at Troy took four meals a day; the first three, only a little bread and wine, and at night a little swines flesh. These rules shall be sufficent in this place, in respect we are to speak hereafter (of the nourishment most proper to be used and to be abstained both by old and young) at length in the Chapter of meat and drink: as also concerning the ayre and exercise, shall be set down in sundry Chapters in the second Treatise of this Book.

3. *Galen* conserv. health.
Hippocrates.
Galen. Avicen.
5. conserv. of health.
Aristoxenus.
Philemon.

Vide lib. 2. cap. 2.

Vide 2 treatise cap. 2.

CHAPTER XIII.

¶ Of such remedies or helpes as should bee used by old people.

Pe. SEeing age is subject to sundry inconveniences and diseases, I would fain know certain remedies for correcting and helping of the same? The diseases of old Age.

Jo. They be so many in number, that it will be tedious to prescribe remedies for them all.

Pe. I will shew you those which I have found most commonly in those people, like as constipation and hardnesse of the belly, flowing, stopping, or binding in the breast, weak, salt and bitter humors, whereof proceedeth great aching, heat, and acrimonie in the making of water, much winde, with universall faintnesse, by reason of the weaknesse of the stomack, and the decay of naturall heat, subject to many defluxions, ever spitting coughing, and watering at the eyes. For the which affections I would prescribe some familiar and weak things: for strong and violent things must not be used to such people. Strong and violent things must not be used by old men.

Jo. As concerning the hardnes of the belly, divers things may be prescribed, yet I find broth most familiar, which may be made diversly: like as to take the tender leaves of Mallowes, Mercuriall, and of the Barbary tree, Beets, Horse-hoof or Colts-foot, with a few Prunes Damask: let all be well purified and sodden with a soft fire, a peece of Veal or Mutton, and take a draught of that in the morning next your heart: or you may make a broth of Gremeall, or Colwood, with a little oyle *de Olive*. But for the wealthier sort, may be made thus, which is most good: Take an old Cock and pull him quick, kill him and bruse him well, pull out the guts, and wash him twice with white Wine, then fill up his belly with Perceley rootes, leaves of Burridge, and Broth for the wealthier sort.

Bugloſſe, Pimpernell, Mercurie, Spinnage, Figgs, Rayſons, Plowdamas, Dates, Hiſſop : Seeth all at a ſoking fire till it be well ſodden, take of the broth a reaſonable draught three mornings together. It hath the virtue to loſe the belly, it cleanſeth the paſſages of the water, and giveth breath. Clyſters and ſuppoſitours were neceſſary ſometime to be uſed. For the heat of the Water a little of Caſſia were good, and ſometime a little Turpentine washed in Roſe water, & taken with white Wine, it being firſt allayed with the yolk of an egge. It may be likewiſe taken in pilles the form whereof yee ſhall hear in the poor mans Guide. As for the weakneſſe of the ſtomack, and wind that oppreſſeth the ſame, confected ginger, ſuger, aniſeeds, cannell, carroway confected, are good : or tablets of *Aromaticum roſatum*, Cannell water, ſpirit of aniſeeds and cloves. To help the naturall heat, externall & internall things may be uſed, as capps of capitall, powders for the brains, amongſt the which, cloves is beſt, plaſters of Unguents, and pore on the heart, unctions on the ſtomack, or the weight of two crowns of Ambergreaſe in a new layd egg, *Therima* & *Methridate*, confection of *Alcermis* imperiall water : the formes thereof are common, ſo not neceſſary to be ſet down in this place.

Remedie. for the oppreſſed ſtomack with winde.

Chapter XIIII.

¶ Of Colour, Figure, and Kind.

Pe. WHereof proceed the Colours?

Jo. Of juſt proportion of the humors, which rule doth governe in mans body : as if there be a juſt proportion of the four humors, the colour is red : if abounddance of melancholique humor, it is livide and black : if aboundance of Choller, the colour is citrine and yellow : if phlegme, the colour is white and pale.

Pe. What

Pe. What is figure, or habitude?

Jo. It is a thing that sheweth the temperature whereof the body is composed.

Pe, How many sorts of figures are there?

Jo. There are foure; the first is called Quadrature, which is of good temperature. The second is Crassitude or thicknesse, and sheweth exceeding heate and humiditie. The third Extenuation, which is hot and dry. The fourth is very fat, proceeding of exceeding coldnesse and humiditie.

Pe. What is a Sex?

Jo. It is nothing but a distinction between man and woman; the man is of a hot temperature, but the woman and Eunuches are cold. The temperature of man and woman.

Pe. Is it a generall rule that men are hot, and women cold?

Jo. No, for *Galen* saith, that it is possible to finde women of more hot temperature than men, but seldome: And so we end naturall things, wherein consisteth the constitution of mans body. *Lib. de pulsib.*

The second Book.

Of Unnaturall things:

The consideration whereof is most needfull for the preservation of health; and containeth six Chapters. By PETER LOVVE Scottishman

CHAP. 1. Of the Ayre.
2. Of Meat and Drink.
3. Of Mooving and Exercise.
4. Of Sleeping and Waking.
5. Of Repletion and Evacuation.
6. Of perturbations & passions of the minde.

Pe. HAving spoken sufficiently of naturall things, which are proper for the constitution of mans body: Now, in like manner it is necessary, that wee goe forward with those things which are called unnaturall things, and conserve the body, if they be rightly used; and if otherwise, they destroy the nature and health of mans body, as saith *Avicen*, Prince of the Arabians, and therefore

Avicen.

therefore are called unnaturall things : of the which I would very gladly know the number ?

Jo. **There are Sir ; To wit, the ayre that goeth about us, the meat and drink wee use, the motion and rest of our bodyes, sleeping and waking, repletion and evacuation together with the perturbations of our minde.**

CHAPTER I.

¶ Of the Ayre.

Pe. SEeing the Ayre is so needfull to us, that no health may bee maintained, nor no defection cured without the same, as wee see by the continuall inspiration , that all naturall creatures draweth for their refreshing , as also for the regendring of the spirit Animall. In like manner , the Ayre may alter our bodies in three manners : to wit, by qualitie, substance, and mutation, as yee shall read more at large in the poor mans Guide, and is no lesse profitable, and necessary to our life than respiration, without the which wee cannot live a moment, as saith *Galen.* Therefore I would know of you what Ayre is ?

Nothing can live without the ayre.

6. Method. & 8 de Placitis Hippocrates. Platonis.

Jo. **It is the matter of our respiration.**

Pe. How many sorts of Ayre is there ?

Jo. **Two ; to wit, that which is good, and that which is evill.**

Pe. What call you good Ayre ?

Jo **That which is pure, clean, thinn, exempt from evill evaporations, deep valleyes, clouds, rotten smells, farr from stinkes, mosses, caverns, carrions, and all corruption : such ayre is best against all sicknesse, as well for the preservation of health, as curing of sicknesses, as saith** *Cardanus.*

Pe. **What is evill Ayre ?**

Lib 1. de difficultate spiran.

Jo. It is that which is contrary to the other, thick, rotten, neer hills, mosses, stinkes, the Sea, and all such Towns as be low and close, infected with evill savours, or scituated betwixt two hills or places where passeth the filth of Towns: also that which is nebulous, and commeth from stinking breaths, also by the celestiall influence, as saith *Hippocrates*. In like manner, that which is exposed to the South winde, & the ayre which is inclosed in close houses for a certain time, which becommeth mouldy and putrified, because every thing that is hot and humide and wanteth eventilation, becommeth putrified. The great Towns neer the Sea, as often we see in the end of autumn and Summer great maladies, and dangerous, sometime the Plague, as writeth *Cardanus*: for it entreth into our bodies by the mouth and nose when wee breath, of the which often are ingendered maladies very difficult.

Henricus Ranzovius lib 7. de conserv. Valetud.

Lib. de subtilitate.

Pe. Whereof proceedeth the varietie of the qualities of the Ayre?

Jo. Of three things, like as of Regions or Countries, of wounds, and of the scituation of the place where we are.

Pe. How proceedeth the varietie of the Ayre by the Countries?

Jo. There are some which are evill tempered, and others well tempered, according to the climate where they are scituated, like as under the Pole Artick and Antartick the far distant Sunn beams, which maketh the temperature extream cold, for the which it is uninhabitable: yet there are some inhabited, as Scithia and other such Countryes, under the equinoctiall line: The intemperature is so extream hot, because of the right reflexion of the Sunn, especially betwixt the circle Artick and Cancer: Like as in the Antartick and Capricorn the ayre is more temperate, chiefly in the middest according to the approaching of the Sunn, as we see in the four seasons of the year. *Cardanus* saith, that those countries which are mountainous are most temperate, and that a man may live an hundred years in such places.

Cardanus, lib. artis parvæ.

Plinie

Plinie saith, that Men, Beasts and Trees, are farre stronger and more barbarous in hillie parts, and that for their great libertie. Those which dwell in the lower parts and vallies, are more effeminate, as saith *Titus Livius*. *Plinius.* *Titus Livius.*

Pe. Seeing the ayre is so necessary for the curation of maladies, is there no way to alter and accomodate it by art, to the sicknesse?

Jo. Yes verily, and for this cause *Hippocrates* counsaileth in maladies cronicall, to change the ayre and countrey, and maladies comitiall, to change the ayre, countrey, and nouriture.

Galen counsaileth those who have Ulcers in the lights, to dwell at Rome, because there the ayre is very drie, in common sicknesses wee help the ayre somewhat by art, like as in fevers, which are hot and dry, we choose a house which is cold and humide: Divers windowes for the eventilation thereof, or winds made by art, also by casting cold water through the house, by spreading and strewing of flowers and branches of trees which are cold and humide, like as Violets, Roses, wilde vine berry trees, and such like: Also beware to have many people in the chamber, as counsaileth *Cardanus.* *Cardanus lib. 5. artis parvæ.*

But when the sicknesses are cold and humide, as fevers putrified, catarres, hydropses, rumors pituitous, we choose houses which are hot and drie. Also to spread and strew flowers hearbes, branches of trees which are hot and dry, as commonly Sage, Lavender, Marjoram, Spinnage, and such like.

Under the signification of the ayre in this place, wee understand all manner of windes, little and great, the which is most necessary to be considered, because they doe not only alter and change the body, but also the spirit. It goeth by the nose to the braine, by the mouth to the heart, by the pores of the skinne and moving of the arteries, through all the body, It furnisheth the aliments to our spirits: For this the divine *Hippocrates* noteth, that the good and evill

disposition

disposition of our spirits and humors, dependeth upon the constitution of the ayre and winds. For we see where there is great trouble and variety of winds, the people are arrogant, difficult to be governed, and very cruell.

Pe. Seeing that of the wind those accidents fall, let mee know what is wind?

Hippocrates. *Jo. Hippocrates* saith, it is no other thing but an unstable motion of the ayre, the which being stirred by some motion it purgeth.

Pe. What nature is it of?

Jo. It is hot and drie, like as it is made of an exhalation hot and drie.

Pe. How many divers sorts of winds are there?

Jo. There are four principall, to wit, *Eurus* from the East, hot and drie, : *Zephyrus* from the West, cold and humide : *Auster* from the South, hot and humide, putrifactive, it passeth by the sea Mediterrane : *Boreas* from the North, cold and drie, resisting against putrifaction.

Arist. attributeth two collaterall to each of those four, and so in all maketh twelve; some make two and thirtie, like as the marriners, but the contemplation of these matters is not much requisite in a Chyrurgion.

Bodin. *Bodin* saith, in his Common-wealth, that the winds make great variety in us, for in countryes where the wind is violent and great, the people are turbulent in spirit: and there where the winds are not so violent, the people are of a more quiet spirit.

Pe. What mean you by scituation or place?

Jo. I mean, as to be scituated towards the sea, stinkes, douls, mosses, and such as you have heard. Also those who have no other aspect, but either to the South which is humide and putrifactive, or to the West which is cold and humide. Also to be dwelling in ground which is fatt, the aire is hot and humide; and in ground that is full of sand, hot and drie.

Titus Livius. *Titus Livius* saith, that the places change the nature of our bodies,

bodyes, as those which dwell in mountains differ from those which dwell in lower places: Also saith he, those Countries which are fertile, the men are ordinarily cowards, given to lust: the Countries and places barren, the people are more hardy and ingenuous, quick spirited.

Arist. saith, those that dwell in cold Regions, are proud, cruell, and barbarous in their manners, very strong: in hot Countries they are wise, and more fearfull those which dwell in low Marish Countries, are dull, slæpie, the which proceedeth of the disposition of the Ayre.

CHAPTER. II.

¶ Of Meat and Drink.

Pe. SEeing the Aliments are no lesse to bee considered for the preservation of th health, than the ayre; it is therefore necessary to know what is aliment, with divers sorts thereof?

Jo. Aliment, is that which augmenteth and nourisheth our bodies.

Pe. How many kinds of aliments are there?

Jo. There are divers sorts: flesh, fish, hearbs, fruits, corne, drink naturall and artificiall, condiments simple and composed.

Pe. Are they all used after one intention?

Jo. No, they are of divers natures, and must be used in divers manners, according to the temperature of the body, as writeth *Cardanus.*

Pe. What sort of nouriture ought wee to use most commonly?

Jo. That which nourisheth well, ingendereth good juice: of the which *Galen* hath written in his books of the Faculty of Aliments, and in the books of Conversation of health, as also *Galen. lib de facul. alimen.*

also *Hippocrates* in divers places.

Pe. In the using of Aliments, how many things are to bee observed?

Trallian. lib. 7. *Jo.* Nine; to wit, the goodnesse, quantitie, qualitie, use and custome, appetite, order, hour, age, and time of the year.

Pe. First then, wee must consider, that hee who would have his body entertained in good health, must use meats of good nouriture or aliment: Then tell mee what is aliment which ingendereth good juice?

Jo. It is that which is light of digestion that nourisheth well, maketh little excrements, and ingendereth good blood, as saith Cardanus, such as Capons, Patridges, Larkes, Veal, Mutton, Kidds, yolks, of Eggs, Fesants, Quailes, Tortoralls, all mountain birds, being larded with sage or hissope: Also some kind of fishes may bee used, as witnesseth Cardane; such as Soles, Trouts, Guggins, & Perches. Good bread of wheat, that is neither over-new, nor too stale, as counsaileth Avicen: for over-new and hot bread doth digest ill, altereth the body, and ingendereth obstructions, sending vapours and fumes to the head. And being too old dryeth too much, and remaineth long in the stomack. In breaking of this bread, it were good to mixe some powder of Carway, Fenell, or Annisseeds, specially for such as are evill disposed and weak stomacked. Such as bee well disposed, oftentimes evil bread or drink commeth in good season, like as it happened to King Ptolomie wandring through Ægypt, who did eate of sheapheards bread, wich hee did esteem the best bread that ever he did eat. Likewise, Darius flying from Alexander, and being sore thirsty, did drink muddy water, wherein had been thrown a great number of dead carkasses, yet hee thought with himself that hee never did drink better drink.

Lib. 3. de sanitate tuenda.

Lib. 15. cap. 27.

King *Ptolomie*

Darius.

Pe. What drink is meetest to bee used?

Jo. Good clean wine that is of good colour and taste, moderately taken, for it hath the virtue to nourish, strengthen, corro-

corroborate the naturall heat, tempereth the humors, and purgeth both by sweat and urine, giveth appetite, helpeth the facultie concocter, and maketh men joyfull; and old wine is best being hot in the third degree, & new Wine in the first degree. The strongest Wine hath most heat, and the sweetest Wine unhealthfull. Yet burnt wine that is boyled with sugar is very good for old weak people, who have their naturall heat decayed, it nourisheth in those good blood but Wine must be moderately taken by all men, for being over largely taken, it hurteth the engine with the whol senses of the body, weakneth the same, and rendereth it dull and hebet, debilateth the Nerves and braines, provoketh trembling and shaking of the members, spasme, apoplexie, palsie, and oftentimes sudden death: so it is meetest both for body and goods, to be moderatly taken.

Henricus Ranzovius de conser. valetud.

But, because every Countrey or Nation doth not affoord wine, therefore in stead thereof we use Hydromell, composed of water and hony: or Ipocras made of water, white-bread, sugar, with a little hony: or Tisen made of water, Barley, Licourish, and a few Prunes boyled together. Also Beer and Ale that is old, clean, and well made, which is now our ordinary drink.

Pe. Have our ancient writers made any mention of Ale?

Jo. Galen or *Hippocrates* hath made no mention; yet I read, that the old Arabians did estœm much of it, and invented divers formes of compounding it, yet much different from our form.

Avicen, Averroes, Magninus Mediolanensis hath largely written of it: saying, it hath great force to quench thirst, loose the belly, temper the body, and provoke sleep, and is as necessary as meat, both to humect the body, and restore that humiditie which is dissolved, as also to put down grosse meats to the lower parts of the stomack.

Avicen, Averroes.

Magninus his regiment of health.

Henricus Ranzovius in his regiment of health.

Pe. What sort of grain is Ale most commonly composed of?

Jo. Of Barley, Dates, or Wheat; but according to the diversitie

diversitie of the grain, it is of divers qualities: that which is composed of Barley and Dates, doe lesse nourish, and ingendereth fewer obstructions and ventosities, than that of Wheat. And that Ale which is most grosse and thick, is worst: that which is thinn and clear is healthfull, yet it is more grosse than Wine, and more harde to digest. Also it maketh more obstructions: that which is new made, doth engender inflamations, wind, vapours, and dolour of the head, specially being immoderatly taken; but being moderately taken it digesteth well, nourisheth much, and maketh people fatt.

I find that our ancients in default of other graines, did make their drink of the grain called *Lolium*, in the vulgar language called Raye or Darnell, it groweth commonly among Wheat, and of all those graines it is the worst. It provoketh great dolour and giddinesse of the head, hurteth the Nerves and sinewes, as saith Ovid and Virgill.

Ovid. 1 Fasto Virg. 1. Geor. Plinius lib. 18. cap. 7.

Infælix Lolium, & Steriles diminantur Avenæ.

Pe. Which are the elements that ingender evill humors?

Jo. All such as are of evill digestion, like as Bacon, yet *Galen* greatly commendeth it for the similitude it hath with humane flesh: but it hath bèn found by experience, that the great usage thereof sometime caused leprosie, because as is alledged, some swine among all other beasts are most subject to that sicknesse, for the which, as saith *Tertullian* and *Baptist Mantuan, Moses* did forbid it to the Jewes, because they were already subject to that sicknesse. Salt Bœf is also found unhealthfull, as also Harts flesh, Hares, Rams, Goates, Gœse, and all sorts of water Fowles. Chèese, Fruit, all sort of *Ligumena*, with all sorts of bread, except that which is made of Wheat, as writeth *Galen*. As touching the proprietie of every sort of aliment, yæ shall hear at larg in my Treatise intituled, The poor mans Guide.

Tertullian. Baptist. Moses. Henricus Ranzovius de conser. valetud.

Gal lib de bono & malo succo.

Pe. What mean you by the qualitie of meat?

Jo. That we never eate more than contenteth nature, and not

not according to appetite. *Hippocrates* counselleth a man who will live in health, not to fill himself too full of meat, neither be slow to exercise and travell, in so doing he shall seldome be sick: for as *Cicero* and some other old writers say, that we should eate to live, but not live to eate, as many doe now adayes, like as the one half of the people doe burst with morning drinks, break-fastes, dinners, afternoons drinking, supper and collation: so that they give no leisure to nature, to digest that meat which they have formerly taken, which both wracketh their bodies, and offendeth God by such gluttonie: the other sort of people be half hungry, who labour and travell sore, yet we doe see they be lesse subject to sicknesse, and live longer. *Possidonius* saith, that intemperancy and gluttony feebleth the body, dulleth the minde, and bringeth soon old age, whereof proceedeth this saying,

Hippoc. Aph.

Cicero.

Possidonius.

Many more persons by gluttony are slain,
Then is by warr, famine, or other pain.

For, saith he, there is no riches nor treasure so great, which in small time may not be swallowed up in their bellies, & at last bringeth man to servitude. *Cato* forbiddeth feasting and banquetting for divers respects: First, it is chargeable, and uncertain whether it purchaseth the favour of him who is bidden, or displeasure to those that are not bidden, with divers other discommodities which are set down in the methode of Civill Policie written by the Bishop of *Caietane*.

Cato.

Pe. Is there alwayes a just measure to bee observed in meat?

Jo. No, for in those which are well wée use according to their temperature; and in the sick according to the diversitie of the sicknesse.

Galen doth counsell in long sicknesses, the sick to use a more large dyet; and in shorter sicknesses a lesser dyet, and when the sicknesse is in the vigor or force, there must be a very spare dyet, used, as saith *Hippocrates*.

Gal. lib.

Glaucon.

Hippoc 5. Aph.

Cardanus is of opinion, that every man should eate but little at once, for the concoction is the better made, and

Cardan. lib. 1 de sani. tuend.

fewer

fewer superfluities and excrements will remain.

The old Romans were accustomed at certain times to supp in their open closes and courts, to let the people see their great sobrietie.

Pe. What doest thou observe touching the quality of meat?

Jo. In those people which are well, according to their temperature: and in those which are sick, according to the diversitie of the disease: in children, aliments that bee hot and humide: in hot diseases, cold meats: and in cold sicknesses, hot meats, and so forth.

Pe. What doe you observe touching custome or use?

Jo. Custome should be observed; for as saith some of our ancients, custome is a second nature: we see, that which is accustomed, although it be not over-good, yet is needfull to be observed: and if it be altered, it must be done by little and little, as saith *Hippocrates*. I have divers times in other Countries seen men become sick, by changing of their aliment and custome. *Hippocrates* doth counsell us to eate of that whereunto we have best appetite, although it be worse than that whereunto we have no appetite: for it is better saith he, because the stomack doth more quickly and better digest it, than that we take unwillingly.

Hippoc. 9 Aph.

Hippoc. lib. 2. Aphe. 3

Pe. Thou knowest that good order is to be observed in all things, and chiefly in meat and drink, for the great effects that ensueth of them: then tell mee what order should be used in eating and drinking?

Jo. Cardane counsaileth us, to eate that first which is easiest to be digested, otherwise we force our stomack. *Hippocrates* doth counsaile us, to use light and humide things in the morning, to open the belly: and such things at night as nourisheth the body: And it is best ever to eate before yee drink, for the digestion is best wrought in so doing.

Cardan. Lib. de sanitate tuenda.

Hippoc. Lib. de Victu. in morbis acutis.

Pe. Is there any time observed when man should eat and drink?

Jo. It is alwayes best after some exercise, and then to eat moderately, the exercise helpeth the digestion, and augmen-

teth

teth the naturall heat : in sick folks, the time is observed according to the force of the sicknesse and custome of the diseased. Yet in the beginning of the excesse, it is best to be very sparing in eating and drinking, except in great necessitie; soon after meat it is best neither to write, read, nor use any profound meditation, for such things returneth the naturall heat which should be occupied in digestion.

Pe. What observe you touching age?

Jo. I observe in children humid aliments are best, for in using of over-dry meats, you drie up the bodie, and so hinder the growing. To young men who are exceeding hot and drie, aliments of contrary qualities must be used, like as to old, who are cold and drie, we should use meats that humecteth the parts solide. In like manner, yong people should eat oftner and more than old, because they have abundance of naturall heat. *Hippocrates* saith, that old people fast easily; next, those who are of manly age; then adolescency and young men; but last of all children, for long fasting heateth the blood. *Hippo. aphor.*

Pe. What distinction make you touching the time of the year?

Jo. In Winter which is cold and humid, we should use meats hot and drie, and in greater quantitie than in Summer, and drink little and good : in the Spring time which is hot and humid, we should eat lesse and drink more, but weaker, using meats of good nourishing : In Sommer, which is hot and drie, wee must use meats cold and humid, diminishing the eating, and augmenting the drink, more than in the Spring. In Autume, which is cold and drie, wee should begin to eat a little more, and drink lesse than in Sommer or Spring time.

Pe. What is drink?

Jo. It is any liquor which appeaseth the thirst, and mixeth the meat in the stomack.

Pe. What is thirst?

Jo. It is an appetite of a thing cold and humid; for the

drink doth humect and refresh either actually present, or potentially to come. *Plinie* saith, that hot drink is contrary to nature, and we must not drink so soon as we be set down at the table, for that doth move and augment catarhes and distillations, and drinking when wee goe to slée p doth the like.

Here we must observe in drinking that we never drink so much till it swimm in the stomack, as divers doe now adayes, who drink for pleasure, of whom *Crinitus* hath made mention: saying, the first draught quencheth the thirst; the second, maketh man joyfull; the third, drunk; and the fourth, putteth him clean out of his sences.

Crinitus of Drunkards.

Macrobius maketh mention, that eating doth make a man quiet, and drinking causeth men to clatter. Drink moderately taken, hath thrée offices: first it helpeth the digestion: secondly, it mingleth the meat in the stomack: thirdly, it bringeth to the liver, vains, and arteries. Of it, there be two sorts, the one doth nourish, like as Wine, Bér, and Ale: the other doth not, as water.

Macrobius.

Pe. What kind of hearbs are meetest to bee used?

Jo. The Arabians doe commend Sage, Mint, Margoram, Rosemary, Pimpernell, Carway, Fennell. *Ætius* permits Colwort, or red coal, but hée defends Léeks, and Onions, because they are vaporous: hée forbiddeth also cold hearbs, such as Lettis, Poppie, and others of that quality.

Ætius.

Chapter III.

¶ Of Mooving and Exercise.

Pe. What mean you in this place by mooving?

Jo. All kind of voluntary exercise, as, labouring,

bouring, running, rysing, playing, wrastling, leaping, daun-cing, and fencing.

Pe. Doth those exercises bring any commodities to our bodies?

Jo. In right using of them, there commeth great commoditie for the preservation of health, and in evill using of them, great and perillous accidents. *Hippocrates* saith, who desireth health, let him not be dull to labour, for a man may not bee healthfull, if hee travell not to dissipate the extremities of the third digestion, that is much recommended by *Galen*: but hee blames all exercise that mooves the body unequally. *Hippocrates.*

Pe. What particular commoditie have we of exercise?

Jo. It helpeth the naturall health, it quickneth the spirit, it openeth the pores of our body whereby the excrements are consumed and wasted, it comforteth all our members, it confirmeth the inspiration, and other actions of our bodies. *Robertus Copperius regi. sanitz.*

Pe. What time is most meet for exercise?

Jo. It is best before meat, or long time after meat, for the stomack being full of meat, it hinderth the digestion. *Fauchius* reporteth, that the schollers of Almaine play immediatly after meat, which causeth them to bee full of humors, crudities, scabs, and ulcers, *Hippocrates* saith, that labour, meat, drink, sleeping, playing, and women, ought to be moderately used, like as all other exercises, the exercise should be afore or long after meat, as yee have heard when the digestion is perfect in the stomack and vains: if otherwise it be used, there gathereth aboundance of crudities and chollerick humors: the exercise duely done, it purgeth the body of many excrements: the exercise ought to be done in this manner, after yee rise in the morning yee shall walk a little, to the end that the excrements of the first digestion may fall into their intestines and those of the second into the bladder, that done, spitt out all in the mouth, throat, and stomack, wash thy hands, face, and eyes, with water of Eye-bright mixed with white Wine, use frictions on the thighes, and leggs down, ever to divert the vapours which *Jak. 2. comm. medic.*

 ascend

ascend, write not, nor read presently after meat, rub your face with a rough cloth, to cause it to exhale and dissipate the vapours which are ascended.

Pe. What sayest thou touching rest?

Jo. Like as exercise duely used, hath great force for the conservation of health: so on the contrary, much rest not onely dulleth the principall instruments of our body, but also of our mind, as saith the Poet.

Variam semper dat otia mentem.

It maketh many crudities, and thereupon great abundance of great humors. *Galen* reckoneth idlenesse to be the cause of many cold maladies, as also the mother of many mischiefes, the which were too long to recite in this place.

Chapter IIII.

¶ Of Sleeping and Waking.

Pe. What is sleep?

Li. 1 Symptom. causis Paul. Ægin.

Jo. Galen saith, it is a rest and quietnesse of the body, and chiefly of the spirits and faculty animall, fortifying the strength, helping the concoction, correcting the perturbations of the mind, and humecting the internal parts of the body.

Pe. What is the cause of sleeping?

Hippo. lib. 1. de insomniis.

Jo. The cheife cause is in the brains, when the vapours ascend thereunto, and by the coldnesse of the brains, those vapours are turned unto humors, the which closeth the conduits of the Nerves.

Pe. What things doe provoke sleep?

Jo. All such things as make abundance of vapours, like as wine, Ale full of barm, milk, and all things that are moist and cold, and commonly after meat vapours ascend first to the head, and so provoke sleep: for this cause some use

use a little oyle of Roses, and Camphier, mixed with womans milk, and apply it to the temples of the head.

Pe. Doe all men sleep alike in quantity?

Jo. That is according to the temperature of the person, for some sleep longer and some shorter.

Pe. What time is ordinarily ordained for man to sleep?

Jo. Seven or eight hours, some nine, as sayth *Galen.* *Plinie* saith, that in sleeping we spend the half of our time, it dulleth the head, it hinderth to digest the crudities, it gathereth abundance of excrements, it hebeteth and maketh grosse the spirits of old folks and children, it retaineth the excrements; in sleeping cover well thy head and feet, for cold of the extremities is very contrary unto those that have their braines cold and humide. *Lib. de tuend. valetud cap. 5. Plinie.*

Plinie in the 7. of his naturall History sayd, that *Epimenides* did sleep in a cave the space of 57. years, being wearyed, and by the heat of the Sunn; yet when he wakened, he thought he did sleep but one day. *Plinie.*

Pe. What time is most meet to sleep in?

Jo. Hippocrates, Ætius, and others, are of this opinon, to walk in the day, and sleep in the night, for that is the institution of nature. Also that sleep should begin two hours after super, such time is most meet for the digestion of our meats, for by sleep the naturall heat is in the center of the body. Sleeping in the day filleth the brains full of humidite, also it hindereth the concoction, of the which commeth ganting, rifting, winds, heaviness of the members, chiefly of the head, and divers sicknesses, as catarhes. Cardane counsaileth to sleep in the day, but meaneth of such folks as doe not rest in the night. Not good to sleep in the day *Lib. de contra dicent medico.*

Pe. When men goe to sleep, which side should they lye upon?

Jo. First on the right side, because thereby the meat goeth more easily to the bottom of the stomack; thereafter on the other side; in no wise on the face, for that causeth defluxions in the eyes, as saith Jesus; nor on the back, for that heats *Lib. de oculis.*

the great vain Cave, and sendeth vapours to the head, maketh hot the reins, the apoplexie, maire, gravell, and divers other accidents: in no wise the hands under the head, as some doe, for that causeth defluxion of humors on the lights: sleep not soon after meat.

Pe. What is to be observed in sleeping, of sick folks?

Jo. Hippocrates saith, those sicknesses wherein sleeping is painfull, esteem them to bee dangerous and mortall, if not painfull, it is a good token.

Libro de somniis.

Pe. It is needfull to observe Dreams in sleeping?

Jo. Cardane saith, dreams are not to bee neglected, because somstime by that wee know the affections of the humors, which dimaneth: as for example, the sanguine dreams are merrie, the cholerick dreams are fiery, the melancholique sadd, the flegmatique cold.

Pe. What meanest thou by waking?

Jo. Waking should bee moderately used, for much waking corrupteth the brains, and the good temperature, it debilitateth the sences, alereth the spirits, moveth crudities, alterations, heavinesse of the head, resolution of all the body, dissipateth the naturall heat, *Hippocrates* saith, that sleeping and waking if they be excessive, they are evill and perilous: so mediocrity is best in all things: the cause of waking is dryness and heat of the brains, it dryeth the habitude of the body: Thus much concerning sleeping and waking.

Hippocrates.

The cause of waking, is the drinesse of the brains.

Chapter V.

¶ Of Repletion and Evacuation.

Pe. THou shalt understand that Repletion, Plenitude, and Aboundance, is all one matter; Therefore I would know, how many kinds of repletion there are?

Jo. There

Jo. There are two, to wit, in quantitis and qualitie?

Pe. What meane you by repletion in qualitie?

Jo. I meane, when the qualitie of meate exceedeth without the humors.

Pe. What meane you by quantitie?

Jo. I meane, when meat, drinke and humors, are in so great quantitie that nature cannot overcome, and it is called excesse or sacietie, of the which commeth most infinite maladies.

Pe. How many kindes are thereof?

Jo. Two, the one of meat, called *sacietas* of the Latines, the other of humors.

Pe. Is sacietie of meate otherwise divided?

Jo. It is yet divided in two, the one is called *Sacietas ad vasa*, that is, when the stomack and veines are so full that it maketh them over-large, as happeneth to them that are alwaies eating and drinking in such quantitie that they are constrained to vomit it up again: for that not only offendeth God, but weakneth their own bodies. Two sorts of excesse of meat.

The other sort of plenitude is called *sacietas ad vires*, which is, when there is so great abundance that the virtue, force, or faculties of our bodies cannot digest.

Pe. Tell mee what the qualitie of repletion of humors is?

Jo. It is, when all the humors, or one alone, exceedeth and dimaneth, such as are good and loiable.

Pe. How callest thou it, when all, or one onely dimaneth?

Jo. When all, it is called Plethora by the Greekes, and Plenitudo by the Latines; when one dimaneth, as the vitious humors, it is called Cacochymia, or juice vitious, either of the choller, flegme or melancholique.

Pe. What is evacuation or inanition? What evacuation is.

Jo. It is an out-drawing and taking away of the humors which dimanes and molesteth our bodies, which are evacuated either universally or particularly.

Pe. Which are the universall evacuations?

Jo. Those which are done by purgation, vrining, bleeding, vomiting, scarrification, exercise, friction, bathing, medicaments, digerents, hegerents, menstruous, purgations: also by the act venerian, in like manner by abstinency of meat, but that is done by accident.

Pe. Tell mee by what manner the evacuation universall is done?

Jo. By purgations, and by medicaments catarticks accommodated to every kind of humor, by things diureticks, vomitors, things which provoketh spitting: and divers others, which I leave to the learned Phisitian: Phlebotomie, how it is used, when, and after what fashion, yee shall hear at length in the first Book: like as of frictions the body is evacuated by the immoderate act of *Venus*, like as divers other mischiefes ensueth thereupon. And first of all, it is hurtfull for the eyes, and all the organs sensitives: the nerves, the thorax, the reines, and divers other parts of the body maketh men forgetfull, provoketh the gout, dolours, nephreticks, and divers diseases of the bladder, bringeth soon old age, consequently death.

The mischiefs of *Venus*.

Galen saith, that those beasts who often joyne together, are of shorter life than those who joyne seldomer: it doth hurt being immoderately used, not only to the man, but to all animals. *Plinie* telleth of two that dyed sodainly in the act venerian: women are alwayes better disposed saith *Hippocrates*.

Plinie.

Notwithstanding, the Bishop of Illerden in Spain, in his Book intituled *Consilium fraternitatis*, reporteth that a woman in his time did complain to the King of Arragon, that her husband did know her thirtie times a day, and her husband confessing the same, was commanded upon paine of death not to know her above six times a day; least the woman should be in danger of her life. Wherefore, saith he we are not so much to marvaile at the abilitie of the husband, as at the complaint of his wife, see the Verse sayth.

Et

Et lassata viris nondum satiata recessit.

And also in the 30. Chapter of Salomons Proverbs: three things are insatiable, and the fourth was never satisfied. But, because such as delight in this passtime, will formalize; as also, because the usage hereof is sometime profitable to the Chyrurgion I will not altogether condemn it: but like as I have set down the discommodities, so shall ye hear the commodities hereof, according as some learned men have written. *Prov 30. 1.*

Paulus Æginita sayth, the usage of *Venus* moderately used, maketh the body more agill and quick, it softneth the instruments being hard, it openeth the conduits, it purgeth the flegme, and is profitable for all phlegmatick passions, and heavinesse of the head, driveth away anger, sadnesse, melancholick imaginations, nocturnals, and procureth appetite. *Lib 1. cap. 15.* *Haliabiles li 5.* *Philippus Gervilonius.*

Ætius calleth it a work of nature, and being moderately used, doth good. It evacuateth the sperme, which otherwise might become to some venomous qualities; and so delivereth man of many evils, as *Galen* saith. *Lib 3. cap. 8.* *Henricus Ranzovius.*

Hippocrates reporteth, that the first act of *Venus* ceaseth many great sicknesses: abstinency doth also evacuate the body both in the sick and in the whole. The which is divided in two wayes: The first, when yee neither eat nor drink at all, and that is called abstinence. The second, when wee take meat, but not so much as is needfull for the conservation of the virtue, and that is properly called diet. *Gal. 6. de locis affectis.*

Pe. Which are the particular evacuations?

Jo. When the braines discharge by the roof of the mouth, and nose, evidently, by the eyes and eares obscurely: the lights by the trach arteries by spitting, the stomack by vomiting; the intestines by the excrements at the fundament; the liver, spleen: kidnies, and bladder, by urine the privy

privy parts of women by naturall purgation, or monethly courses: as yée shall heare in my booke of Womens diseases.

Chapter VI.

¶ Of the Passions and Perturbations of the Minde.

Pe. ARist. doth divide the mind into two parts, to wit, that of reason, and the other without reason. It is subject to divers passions, therefore shew me what thou callest the passion of the minde?

Agrippa. lib. 1. de occult. Philoso.

Jo. It is a suffering of the minde by the just course, the which maketh marvellous mutations in the body, and therefore most necessary to be remarked, because of the great chances which ensue thereupon, as wee may perceive by *Arist.* who sayth, that the motions and perturbations of the minde, bringeth great mutations into the naturall heate.

Hippo. 6. epid. Gal. 2. de sum. cau. cap. 5. & method 2.

In like manner, *Hippocrates* and *Galen* doe shew, that many dye by the motions and perturbations of the minde: for they either dilate or compresse the heart, for the which the vitall spirits are rather cast forth by the great dilation of the heart, or else retained by the great compression thereof; amongst the which, joy, hope and love, casteth the spirits outwardly, sadness and fear recalleth them inwardly to the center of the body in divers manners.

Henricus Ranzovius de confer. valetud.

Pe. How many such passions are there?

Jo. There be divers: But here I will tell of such which are most common, like as mirth, sadnes, fear, anger, shamefastnes, envie, hatred, hope and love.

Pe. What

Pe. What is mirth?

Jo. It is an affection of the minde, of a thing good and pleasant, by the which the blood and spirits are pleasantly spread for the present goodnesse, by the dilation of the heart: but if it be great & last any long space, oftentimes death ensueth, because the heart is altogether destitute of blood. *Arist.* reporteth of a woman named Policrita, that dyed for joy. I read that one Philippides a writer of Comedies, being contending with another, and overcame him beyond his expectation, did die for joy.

Policrita.
Philippides.

Valerius Maximus writeth of two women, one Chilon a Lacedemonian, and Diagore a Rhodian, that did die for joy, for the happy returning of their sonns from the warrs, as also because they had overcome their enemies.

Valerius lib. 9. cap. 12.
Chilon.
Diagore.

Gellius reporteth of one Diagoras, when hée did sée his thrée Sonns crowned at Olympus for their virtue, died for joy imbracing them in presence of the whole people. These accidents happen oftener to women, than to men, because they have the heart more cold, & the fewer vitall spirits, & so doth sooner dissipate, & so die. In like manner, men who bée faint-hearted and feeble spirited yet joy moderatly used, worketh many good things in us. It resuffocateth the spirit, helpeth the concoction, and all the habitude of the body, fortifieth the virtue animall; but much laughing is hurtfull, chiefly to yong children.

Pe. What is sadnesse?

Jo. It is an affection that doth revoke the naturall heat inwardly, to the center of the body, but at great leisure it pressetth the heart, dryeth up the body, that hardly the spirit vital can governe as before, and is so weakened, that it may not go with the blood through the rest of the body, so wasteth the body in such sort, that it becometh atrofied and lean, whereupon death often ensueth.

Henricus Rangovius de conser. valetud.

Cicero sayth, it were a great good amongst men to live on eating and drinking, but it were a greater good if men could live without sadnesse and melancholly, because the meat

we eat doth make corruption of humors in our body, but sadnesse and melancholy doth consume the flesh, bones, and gnaweth the entrails, of the which divers dye. Salomon saith a sad spirit dryeth up the bones, and a merry heart rejoyceth the minde.

Plinius reporteth, that one *Petrus Rutilius*, after he had heard that his father had a repulse of his petitions, died with sadnesse. *Marcus Lepidus*, after his wife was divorced from him, did likewise dye; with Ely the high Priest of the Jews, and divers others.

Pe. What is fear?

Cornelius Agrip. de occult. Philos. lib 1. cap. 63.

Jo It is a motion which revoketh the spirit to the center, to the heart by the arteries, which suffocateth the vitall and naturall heat, causing trembling, whereof sometime the belly loseth, and sometimes death ensueth.

So I finde that fear maketh the like accidents which melancholy doth, but greater, and in shorter time it drawetb the blood and spirits to the heart, the visage becommeth pale, the extremities cold, with universall trembling, intercepting the voyce with palpitation of the heart, being suffocated by the great aboundance of blood and spirits, that it cannot move freely.

Zenophon.

Galen saith, that this passion happeneth oftner to women, and those of cold temperature, than to others. Zenophon saith, that the great torments of fear are more vehement than all present adversities. Divers learned men doe affirm that men have grown white in 25 years, only by the apprehension and feare of death.

Antonius de abditis morb. causis.

Antonius Benevenius writeth of a boy that dyed for feare, by seeing two men clad in black, going to the stool; the which boy dyed eight dayes after about the same hour, like as doth the most part.

Pe. What is Anger?

Jo. It is a suddain revocation or calling back of the spirits to the externall parts, with an appetite of revenge: or it is an ardent heat or ebullution of blood in the heart, with desire

fire of revenge: it enflameth the whole habitude of the body, causeth fevers by reason of the inflamation of the heart, the spirits and blood are troubled, as also the brains and nerves of the which commeth frenzies, and other evill accidents, it bindeth the heart and lights.

Pe. What is shamefastnesse?

Jo. It is a motion of our body mixed with anger, by the which one knowing and suspecting his own fault, would be angrie with himselfe, seeing the judgement of others. In this passion the blood returneth in, and suddainly doth come out, the cheeks and face becometh red, of this passion some dye. Plinie telleth that one Diodorus professor of Dialectick, who having a question propounded unto him, and not answering as he should, dyed for shame. Valerius Maximus reporteth, that Homer dyed for shame, because he could not answer a question propounded to him by certain fishers.

Hali Abbas. Lib 5.

Plinius.

Diodorus.

Valerius. Maximus.

Pe. What is envie?

Jo. It is a heady oppression of the heart, angrie at the felicity of some other man.

Pe. What is hatred?

Jo. It is an old malicious habitude bred of anger, by the which the heart would reveng the injurie.

Pe. What is hope?

Jo. It is a motion, by the which the heart desireth the future good: it openeth and dilateth the heart, like as joy for the present good.

Pe. What is love?

Jo. It is a fervent motion, by the which the heart desireth ardently, and endeavoureth to draw unto it, a good, assured, and apparant, not much different from hope, except the love be more ardent.

THE

The third Book;

Of things altogether contrary to our Nature.

Which containeth three Chapters. By PETER LOVVE *Scottishman.*

CHAP. 1. Of Maladie.
2. Of the cause of Maladie.
3. Of Accidents and Symptomes.

Pe. I Have discourſed with you of Naturall things, whereof our body is compoſed; as alſo of Unnaturall things, which may alter our body being duly uſed: So, now I intend to ſpeak unto you of things which are altogether contrary to our nature, and deſtroyeth it. For the which cauſe *Galen* calleth them things contrary to nature. Therefore let mee know what things bee thoſe which bee altogether contrary to our nature, with their number?

Galen. 2. de tẽper. & 1. de ſump. om. conſ.

Jo. They bee three; to wit, Maladie, cauſe of Maladie, and accidents of Malady.

CHAPTER

CHAPTER I.

¶ Of Maladie.

PE. SEeing thou calleſt the firſt of the three things contrary to Nature Maladie, then tell me what is the definition thereof?

JO. It is a diſpoſition againſt nature, which hurteth manifeſtly the operations of the body. Definition.

PE. What is health?

JO. It is a conſtitution according to nature, which maketh the actions of our body perfect.

PE. How many kinds of Maladies are there?

JO. Three; to wit, Intemperie, evill confirmation, and Solution of continuitie. Three kinds of Maladies.

PE. What is Intemperie?

JO. It is a maladie in the ſimilar parts, digreſſing from the owne temperature.

PE. By how many wayes was it divided?

JO. Two wayes; to wit, either by the ſimple intempery, or by the aboundance of the humor only, as by cold, hot, moyſt, and dry.

PE. What is evill confirmation?

JO. It is a vice in the parts organicks, either in figure, magnitude, or ſituation: as for example, that which ſhould be naturally right, is oblique, and ſo forth: as if a part were augmented or diminiſhed contrary to nature: alſo in the number of the parts, as if a man had five fingers, or ſix: alſo in the ſituation or collection, as if parts naturally joyned were diſ-joyned, as happeneth in diſlocations. What evill confirmation is.

PE. What is the third kind of Maladie?

JO. Solution of continuitie both in the ſimilar and organick parts, which have divers names, according to the varietie of the parts where they are.

CHAPTER

Chapter II.

¶ Of the cause of Maladie.

The cause of Maladie.

Pe. WHat is Maladie?

Jo. It is some affection which maketh sicknesse, of the which some are externall some internall.

Pe. Which are the externall?

Jo. They bée called procatarticks, or primitives, as strokes, falles, wounds, shot, and such like: as also evill nouriture.

Pe. Which are the internals?

Jo. They be two, Antecedents and Conjuncts.

Pe. Which are the Antecedents?

Jo. Evill humors in the body.

Pe. What are the Conjuncts?

Jo. It is that which maketh the sicknesse presently, and is alwayes accompanyed with the sicknesse.

Pe. How commeth the cause of Maladie?

Jo. There are some who have it from their mothers womb, and from their parents, which wée call hereditarie sicknesse: some doe ingender after our birth, as by the evill regiment of life, stroks, and falls, as yée have heard.

Chapter III.

¶ Of Accidents and Symptomes.

Lib. de symptom. differen.

Pe. WHat call you Accident or Symptome?

Jo. Galen sayth, that symtome is any thing that chanceth to man by nature: so the causes interns of sicknesses, may be called symptomes.

Pe. How many kindes of Symptomes are there?

Jo. Thrée

70. Three; the first, is when the action is offended, which may be divided three wayes: that is, either by abolition, diminution, or deprivation. As for example; in blindnesse the sight is abolished. Diminished, as suffusion, which happeneth in the beginning of the Cataract of the eye. Deprived, as for a certain time, like as in changing the simple affections of our body, or the whole habitude from one extream to another: as the naturall heat to the inflamation, the scabb of the flesh to leprosie. The third is, in the vice of the excrements by immoderate extention or expulsion, as the Hemorrods, the purgations or monethly courses of women, and urines. These or either of these being reteined or evacuated over-much, maketh many great and evill acsidents in the body.

Three kinds of Symptomes

Of Tumors, or Aposthumes against Nature.

The Contents whereof containeth XVI. *Chapters.*
By PETER LOWE *Scottishman.*

Chap. 1 Of Tumors in generall.
2 Of Phlegme.
3 Of Epinictis, Terminthus, and Theribinthus.
4 Of Furuncle or Dothin, which proceedeth of Phlegme.
5 Of Anthrax, or Carbuncle.
6 Of Gangrena, and Histiomen.
7 Of Spasshell.
8 Of the extirpation of Fingers or Toes.
9 Of the Tumor called Herisipilis.
10 Of Herpes.
11 Of Ædema.
12 Of the windy Tumor which proceedeth of Ædema.
13 Of the watry Tumor which proceedeth of Ædema.
14 Of Atheorema, Steotema, Melleriseris.
15 Of the melancholick Tumor, called Schirr.
16 Of Cancer, or Carsinoma.

CHAPTER I.

¶ *Of the Causes, Signes, and Curation of Aposthumes in generall.*

Pe. NOw it shall be necessary that I instruct thee in the exercise of Chyrurgerie: For the better understanding of the same, I will begin at Tumors against Nature, in demanding first of thee, what is a Tumor or an Aposthume?

The definition of aposthumes

Jo. It is a disease composed of three divers maladies;

maladies to wit, evill complexion in the similar parts, evill composition or constitution in the instrumentall parts, and solution of continuitie in both similar & instrumental parts, offending the action of the member where it is. *Gal 2. ad glau cap. 7.*

Pe. What are the causes of Aposthume?

Jo. Some are generals, and some are specials.

Pe. Which are the generall causes?

Jo. Either fluxion, or congestion.

Pe. What is fluxion?

Jo. It is a motion of the humor of the body, to some certain part, the which either by quantitie or qualitie, or both together, may not be received by the part without offence. *Gal. lib. 13. meth cap. 5. & 6.*

Pe. Which are the causes of fluxion?

Jo. They are double; to wit, either in part or parts that send, or in the part or parts that recive.

Pe. How is the fluxion made in the parts that send?

Jo. When the faculty retentrix of the part is overcharged with humors, which doe either offend in quantitie, qualitie, or both: for then the part dischargeth it self by the virtue expultrix, cheifly being strong: as likewise when the part that sendeth, hath connexion with the part that receiveth, or the part that receiveth being inferior to the part that sendeth: also if the said parts have any simpathy together, as the stomack with the brain. *Alexander. Aphroditus problem. 74. lib. 2.*

Pe. Which are the causes in the parts that receive?

Jo. They be divers, like as weakness, not having force to expell or put themselves elsewhere: also when the vessels and conduits are large where the matter doth passe, or because it is soft in substance, so more easie to receive, sometime for the dolour which maketh attraction of the matter from the parts néer unto it, as likewise great heat which draweth and provokeeh fluxion.

Pe. What is Congestion?

Jo. It is a masse of matter contrary to nature, ingendred of the superfluities of the third concoction of that aliment & food, which are distributed for the nouriture of the parts of the

the body, which chanceth when the aliament is not so digested, that it may well be appropriated to that part which should be nourished.

PE. Which are the causes of Congestion?

JO. They are eyther imbecility of the faculty concoctrix, of the part which cannot digest that which is sent to it by nature, for the nouriture thereof, or imbecility of the faculty expultrix, which cannot expell the superfluities that resteth commonly in the part.

Comment. in aphoris. 2 sect. 1 lib 4.

PE. By what means know you the Tumors made by fluxion, and that by congestion?

JO. The tumors which be made by fluxion, are with great dolour, rednes, pulsation, and maketh the degrees faster then those which are done by congestion: those which are done by congestion doe grow little and little, and in like manner doe diminish when they come to their declination.

Haly Abbas lib 8.

PE. Which are the speciall causes of Aposthumes?

JO. They are three, primitive, antecedent and conjunct.

PE. Which are the primitive causes?

Taugelcius lib. tumor praeter naturam.

JO. They are externall, like as falls, strokes, and other externall violences which may move the humors of our body: also great heat of the ayre, as likewise meat or drink taken over cold.

PE. Which are the causes Antecedents?

JO. They be internall, not knowing as the precedents, the which doth ingender not only the maladie, but also entertained such as the humors naturals, offending eyther in quantitie or quality: also the intemperature, weaknes, evill confirmation, and dolour of the parts.

PE. Which are the conjunct causes?

JO. The conjunct is the matter gathered together in the place, and so is called, because it is with the sicknes, and nourisheth it with the disposition of the member.

PE. Which are the generall signes of Aposthumes?

Gal. cap 6 lib. 10 met. & cap. 7 lib. 2. meth.

JO. Tumor or swelling in any part by the naturall disposition, offending the action: also differing of the parts which should

should be like to other : also dolour and heat.

Pe. By what signes know you every kind of Tumor?

Jo. Either by the colour, intemperature, hot, cold, hardness, softness, dolour, tention, gnawing : as also by the continuation of the fluxion : for first the colour is like unto the humor; as if it be red, it proceedeth of the sanguine humor, if white of pituita, if black of melancholique, if yellow of choller : Furthermore, if there be heat, it signifieth either sanguine, choller, or burnt humor, if cold, watry, or windie, it signifieth the humor pituitus or melancholique, to be in the part : also hardnesse with dolour signifieth phlegme, if without dolour, schirus : if softness without dolour, it signifieth Edema : great tention betokneth repletion of wound : if mordication or gnawing, it signifieth the acrimony of the humor, which maketh the tumor.

Gal 14 meth. cap. 9 & 6 de morb. cau. & comen in aphs. 38.

Pe. How many sorts of Apostbumes are there?

Jo. Two, hot and cold.

Pe. Which are the hot?

Jo. Those which proceed of blood and choller.

Pe. Which are the cold?

Jo. Those which come of phlegme or melancholy.

Pe. Which are those that proceed of blood?

Jo. They be divers; like as Phlegmon, Carbunculus, Fimous, Figetlon, Terminthus, Terebinthus, Ecthimetha, Gangrena, Anthrax, Tuberculus, Ophthalmia, Scinantia, Bubo.

Pe. Which are those that come of choller?

Jo. Erecipilas, Herpes, Formica, Empetugo.

Pe. Which are those that proceed of *pituita?*

Jo. Edema, with all watry and windie Apostbumes, Atheorema, Steotema, Melleseris, Asitois, Leuchophlegmatia, Bruncosele, &c.

Gal. lib. tumor. contra natur. cap. 5 & 13. meth.

Pe. Which are those that come of melancholy?

Jo. Leprosie, Schirrous, Cancer, Gracunculus, Warts, Claves, Fimous, Morphea, *alpha & nigra* : Of all which we shall hereafter intreat particularly in severall Chapters.

Here it shall suffice to know that they doe proceed of the four humors.

Pe. What judgement give you of Tumors?

Jo. Some be curable, some dangerous, others dolorous, some long in healing, and some be mortall.

Pe. Which are curable?

Gal. ad glau. cap. 4 & lib. 1. & 4 meth.

Jo. Those which are in the parts musculous, and bodies of good temperature.

Pe. Which are dangerous?

Jo All those which doe penetrate internally in the body, and those which are very large, not pointed, as saith Hippocrates, and those which are in parts very sensible.

Pe. Which are the dolorous?

Jo. Those which are in the parts nervous and membranous, and are ingendered of a sharp and biting humor.

Pe. Which are long in healing?

Jo. Galen saith, that those which happen in rich and delicate persons, because they refused fit remedies for the curation of such tumors, also all those that are hard, and in evill disposed bodies and hydropicks, elephanticks, all such are long in healing.

Pe. Which are mortall?

Jo. Those which are venomous, or taking the course inwardly towards the noble parts, or those which are in the noble parts.

Pe. How many times or degrees have the Aposthumes?

Gal lib. de tot. morb. cap. 3. & cap. 1. de morb. tempori.

Jo. Four, to wit, the beginning, augmenting, state or vigour, and declination.

Pe. What is the beginning?

Jo. It is when the humor doth first appear and begineth to swell.

Pe. What is augmentation?

Ætius lib 4 Gal. li. 4 cap. 4 meth & 6 epi men.

Jo. It is when the tumor groweth more and more, as also the accidents.

Pe. What is state or vigor?

Jo. It is when neither the tumor nor accidents grow, but remain

remain in one estate.

Pe. What is the declination?

Jo. It is when we perceive the tumor and also the accidents, to diminish with a dissipation of the humor, either by resolution or suppuration. *Aetius lib. 4. cap. 31.*

Pe. What is resolution?

Jo. It is the evacuation of the humor, by the pores of the flesh, insensible to us.

Pe. What is suppuration?

Jo. It is a virtue which maketh the humor gathered in the place into matter: so all Aposthumes doe either end by one of those determinations, or else by induration or corruption: so in all, there are but four terminations, the best is resolution in the beginning, the worst corruption, but suppuration is better than induration.

Pe. Which are the signes of those terminations?

Jo. The signes of resolution are lightnesse or ease, of the member tumified, diminution of dolour, pulsation, and tension, with itching in the part. The signes of ruppucation, are dolour, pulsation, augmentation of heat and fever, with eminent tumor. The signes of induration are diminution of tumor and the accidents precedent, with a manifest hardnesse. The signes of corruption are diminution of feeling of the dolour, with change of the colour and so becommeth by little and little black, and evill savoured.

Pe. What is the generall cure of Aposthumes?

Jo. As for the cure we must understand, that either the tumor or swelling is in making or is alreadie made, for the which cause we have two intentions, the one to stay the fluxion of the humor to the place, the other to evacuate the humor gathered in the place.

Pe. How stayest thou the fluxion?

Jo. First I consider, if it come of plenitude of all the body, and then I stay it by letting blood: if the region, ayre, time of the year, and strength of the patient do permit, after the form you shall hear in the ninth Book: also by bathing, exercise, *Gal. ad glauc. cap. 2. & lib. 3. meth. ca. 4. & c.*

exercise, unctions, degerents, and abstinence, In like manner, if cacochimie or plenitude of humors, I heal it by vomiting, purgations, and glisters. If through imbecillitie of the part, I fortifie it by fit remedies. If by the scituation which is lower, I scituate the parts in such fashion, that the part which offendeth is higher than the whole. If dolour be the cause, I stay it by using anodine remedies, as yee shall hear in the tenth Book. If great heat, I stay it by cold things, and returneth the fluxion by scarrifications, ventosing, cornets, Horsleaches, straight binding, frictions, and such like.

Gal. lib 5. simtom ca. 10.

PE. By how many wayes doe you fortifie the part?

JO. By three wayes, that is, by cold and humid things, or cold and drie, or cold and stiptick, so any part may be delibated three wayes, that which relaxed with heat and humiditie, must be comforted with cold and drie things: the hot and drie is healed by cold and humid things: if hot and open of the pores, it is cured by things cold and stiptick.

PE. Which is the second intention?

JO. It doth consist in evacuating that humor, which is made, to the end the member may return into his own estate.

PE. How is evacuation used?

Gal lib 14. meth ca. 1 4 5

JO. Two wayes, first by drawing the humor to some other part, as to repell it inwardly: also in fortifying of the member.

PE. When shall repercussives bee used?

Gal. lib 1. prognost. com. Apb. 35.

JO. In the beginning, and that as well on the sore as about it, but that which is on the sore must not be so astringent, nor corroborate as that which is about.

PE. How many kinds of repercussives are there?

Repercussives.

JO. There are divers, for some bee cold without astriction, like as Bolarminie, Plantine, the Stone Hematite: some bee hot, as galls, red wine, nuts of Cypres, wormewood, mastick, and such like.

PE. Are they not otherwise divided?

Guydo in his chirurgerie.

JO. Guydo of Coleac doth divide them into propers, and communne:

commune: the proper as Dricrate, Solanum, Bolarmenie, Wormwood, and such like: the communes are these, whites of Egges, Mallowes, oyle of Roses, Cammomile, Mastick, and such like.

PE. How shall these divers sorts bee used?

JO. When the matter is hot the repercussives shall bee cold, and when it is cold, they shall be hot.

PE. Are repercussives indifferently used in all sicknesses? *Gal.lib.14. meth.cap.3.*

JO. There are ten exceptions wherein the propers are not used. First, when the matter is in the emunctoires of the noble parts. Secondly, if the matter be venomous. Thirdly, being thick and evill to remove. Fourthly, when it is very hard impacted in the place. Fiftly, when it happeneth in the crisis of a sickness. Sixtly, when the matter commeth of a cause primitive. Seventhly, in a bodie plethorick. Eightly, when the part is weak, and the body destitute of force. Ninthly, when it is in the noble parts. Tenthly, when it is with vehement dolour, and in that we use anodines, and not repercussives. Ten exceptions of using repercussives.

PE. How is the second intention done?

JO. By evacuating that is done in the place, and that by resolving and discutent medicaments and evaporatives, that are meanly hot and humid. In like manner, by drawing emplasters, by sucking, ventosing of the part grieved, as saith Avicen. *Avicen.*

But yet in both the evacuations, wee must regard the quantitie and qualitie of the matter which the tumor is composed of: As also to the nature of the place where it is, for wee must not cure those which proceed of blood, as those which come of phlegme, choller, or melancholy.

Also wee must respect the nature of the parts: for wee must use other remedies in soft and humid parts, as the flesh and glands, than in hard and dry parts, as nerves, ligaments, cartilages, and bones. *Gal ad glaut. cap 2.*

Wee must also have respect to the parts of the body, for some

some are simples, others composed, some of one temperature, some of another, so the remedies, which must be used, to the part. Wee must also respect the confirmation of the part, for some are hollow without or within, some are soft, easie to receive reflurion.

Gal 2 ad glau. Gal.7.meth. cap.13.

In like manner, we must regard the communications of the veines one with another, also the commoditie of the conduites, to expell the excrements : as also to the virtue of the place, for some are sensible, some not : as also to the diversitie of the parts for some are noble parts, as the brain, the heart, and the liver, which send the virtue through all the body by the nerves, arteries, and vaines : others doe serve the principall parts, without whose action wee cannot live, like as the stomack, kidnies, bladder, and sundry others.

Gal.artis. par. cap 9.

In parts that are sensible, wee must beware to apply medicines that lose and resolve immoderately, or to apply any thing that is of a strange qualitie, and venomous.

Gal.lib.1 ad Glau cap 2.

Pe. Are there no other things to bee observed in the cure of tumors?

Jo. Wee take our indication according to the diversitie of the tumor.

Pe. How many sorts of tumors are there?

Four sorts of tumors.

Jo. Four, some are hard, others soft : some inward, and some ulcered.

Pe. What remedies use you in those Apostbumes?

Jo. In hard apostbumes, we use remedies that soften and have a hot and somewhat drie virtue, wee use no resolvatives in such tumors, by reason the matter wareth hard like a stone : the soft are cured by hot things, that resolve and open the pores : the ulcered apostbumes, like as Formica, are healed by cold things : the inward are cured by diminishing the matter, with bleeding, purging, and other generall remedies, abstaining from all strong drink, violent exercise, and perturbations of the minde, like as anger, fear, and the rest, which yee have heard in the Book of Unnaturall things.

The

The rest of the cures pertaineth to the judgement of the expert Chyrurgion, ever using such remedies that hath the virtue to soften and make ripe, like as Cassia Fistula, Triacle, and such others, which have the virtue to resolve hidden Aposthumes.

Marianus Sãctis de modo exam. Chyrur. Antonius Bonevenins de abdit morb. cau.

Pe. If the Aposthumes neither end by resolution, induration, nor corruption, but by suppuration, what shall bee done?

Jo. They must be opened.

Pe. How many wayes must they bee opened?

Jo. Two wayes, either by themselves, or by help of the Chyrurgion.

Pe. Which are those that bee opened by themselves?

Pe. Those which are hot, eminent, soft, and tender skinned.

Pe. In what time doe they open most commonly?

Jo. Some in tenn, fiftéen, or twentie dayes doe open, others in fortie or threescore dayes: and this happeneth according to the temperature, or by the application of fit remedies.

Hip. 2 progno.

Pe. Which bee those that bee opened by the help of the Chyrurgion?

Jo. Those which are hard, cold, large, in bodies evill disposed, and thick skinned: in cold membraineus parts, and in the emunctores.

Pe. How many wayes doth the Chyrurgion help?

Jo. Thrée wayes, either by Cauter actuall, potentiall, or incision.

Pe. How many wayes maketh the Chyrurgion his incision?

Jo. Thrée wayes; some incisions are made in length, breadth, and circular, according to the part.

Three wayes of incision.

Pe. What mean you by length?

Jo. When it is according to the rectitude of the muscles, nerves, and membranes, to the end the action of the part may be preserved.

Pe. When

Pe. When make you your incision by bread?

When incision by bread is to be made. *Cornelius Celsus lib.7 cap.2.*

Jo. When we have intention to destroy the action of the part, as in spasme or convulsion we cut the nerve or muscle overthwart, to save the rest of the body, for better it is to debilitate one member than lose the whole.

Pe. When use you incision circular?

Jo. When the cavitie is great, to the end the humor or matter may evacuate the better. And here I doe remark that somtime in opening those Apostbumes, there is errour committed, in those which penetrates under the womb, for they appear to the simpler sort to be Apostbumes, and are only called ruptors, whereof good heed would be taken.

Gal.13 meth cap.1.

Pe. I have enformed you sufficiently touching Apostbumes in generall, I will hereafter particularly intreat of every one of them by themselves, beginning at those which proceed of blood, and first with Phlegmon, because it is most common, and causeth divers accidents. Then I will follow out the rest in order, as well generally as particularly, which being done, I will entreat of wounds after the same method.

Chapter II.

¶ Of Phlegmon.

Definition.

Phlegmon, is a tumor or Apostbume against nature, ingendered of defluxion of blood, which happeneth in divers parts of the body, but most commonly in the soft parts, and is of colour redd, hard, inflameth sore, accompanied often times with fevers, and divers other accidents, of the which there are 2 sorts. The true Flegmon that is ingendered of blood being in any part more than is needful for the use thereof: The other proceedeth of unnaturall blood, altereth by some change, as by mixing one or more of the other humors

Gal. lib.14. meth apb.2.

with

with it, so according to the domination of the humor it taketh the name, as for example, if the cholerick humor dimane amongst the blood more than the rest of the humors, the humor shall be called Phlegmon Erisipilas, and in like manner in the rest, as Phlegmon Edematus, or Schirrus: so that these humors are seldome found alone, but mixed together.

Gal lib. tumor cap. 5. Gal de differ. morb. cap. 12.

The causes are triple, primitive, antecedent and conjunct; the primitives are externall and first motives, like as great usage of meate which engendreth much blood, also all those things which may move the humors and provoke fluxions; likewise falls, strokes, contusions, broken or bruised, excessive heate, labour, and such like. The antecedent cause is of great superfluity and abundance of blood, offending eyther in quantitie, qualitie, or both; also intemperancy, evil confirmation and dolour of the part. The conjunct or continent cause is the blood or matter affixed in the afflicted part. The signes are inflamation, redness, hardnesse, fever, dolour, pulsation, chiefly being in maturity: the Judgements, the small ones doe often resolve, the great ones doe oftentimes apostheme, and somtime doe engender into great sicknes, according to the evill disposition of the body and parts where it chanceth, as in mortification and schirrus: somtime it doth returne to the place from whence it came, as happeneth in the emunctories of the noble parts: as for the curation, it shall be reduced to four points: the first shall consist in good dyet, secondly, in staying of the tumor that flowseth to the place or part: thirdly, in evacuating that which is within the place: fourthly, in correcting the accidents which often doe chance. As touching the first, which is good dyet, it shall be observed in six things not naturalls, which must bee cold, contrary to the humor which is hot, sometime it must be cold and humid, using weake drinke, or in time of fever use only Ptisan with a pure cleane ayre, rest and keep thy belly loose, eyther by suppositors or glysters, & abstaine from women. If it happeneth with fever, the humor

Gal. meth. ca. 1. Haly Abbas lib. 8.

Johannes Tonatius institut. Chyrur. lib. 1. ca. de Phleg.

mor that floweth must be diverted, by taking away the cuse as repletion of the evill humors, by bleeding & purgations, also by strengthening the part if it be weak. Likewise by frictions, ventosing, and binding of the part. The humor shall be evacuated divers wayes, according to the time or degree of the apostbumes, in the beginning we must use repercussives made of whites of eggs, orecrate, Rose and Plantain waters, cataplasmes made of Bolarmenie, Terra sigillata, bark of Pomgarnet, henbane, oyle of roses, unguent rosat me'ues, album rasis, diacalcithiseos, mingled with oyl of roses or pupilion.

Gal. 13 meth. cap. 6.

How to use the augmentation.

For the augmentation which is the second degree, wee use repercussives and resolatives, made of mallowes, roses, Plantine, wormwood, barly-flower, oyl of camomile, orecrate, powder of roses, and myrtiles, sodden in wine, called sapa, rose water, vinegar, Saffron: Also yolks of Eggs, with milk, bread, and a little Saffron, of which things you may make Cataplasmes, linements, fomentation, as you shall finde expedient: in the vigour we use repercussives and resolatives, in like force made of mallowes, parietarie, and althea rosted under the hot ash s, oyl of roses, camomile, with a little bean-flower.

Avicen. The declination how to be used.

In the declination we use only resolatives: *Avicen* doth counsaile to soften a little, which may be done with fomentations made of althea, origan, lintseed, fenigreek, with flowers of roses, and cammomile, which things must all be sodden in white wine with a little barley meal and honey: also unguent of Arrogon, Partiatum, Agrippa, de althea, de meleloto diachilon parvum, unguentum resumptivum, occicrotium, or emulatum, these or either of them may be used.

We correct the accidents, which is the fourth point, as dolour, which must bee appeased by all means, when the great accidents, which often doe ensue, for the which we doe use oyl of roses, ware and wine sodden together, as counsaileth *Galen.*

Galen.

Also cataplasmes of bread and milk, with butter and saffron,

fron, water, oyl, of roses, violets, cammomile, anisæds, or swæt almonds. Likewise the flowers of mallows, cammomile and milelot sodden in wine, putting thereto a little barly flower, gose-grease, and linseæd. Also unguent rosat, and pupilion, if those things be not sufficient, we take the leaves of the henbane and poppie, rosted under the hot ashes, then tempered with the juice of sorrel and houslæk, putting to it a little henns grease and crocus. *Gal. lib 1. simpli ca. 6 & 13. meth. cap. 6.*

If the matter taketh the course inwardly to some noble part, we remedy it by application of ventosses and cornets, straight ligatours, and such like.

If the matter doe come to a schirrous disposition, we must use medicaments that soften and digest, like as you shall hear in the chap. of Schirrus.

If it tend to putrefaction, it must be helped by deep scarrifications, lavtments, cataplasmes made of bean flower, sodden in vinegar and honey, with such other remedies as you shall hear in the chap. of Gangrena. *Gal. lib. 5. meth. ca. 13.*

It happeneth often times, that this tumor tendeth to suppuration, which is known by the great swelling and redness of the place, eminency, great heat, dolour, pulsation, feaver, and such like. These thiugs being perceived, we passe from resolatives to suppuratives, as to foment the place with hot water or oyl, also with honey and water mingled together, called *Hydroleon*: or a cataplasme may be made of white flower sodden in *Hydroleon*, with a little fresh butter, calfs, henns, or gose-grease: Or you may make a suppurative of little roots, sorrell, parietarie, and mallows, sodden in *Hydroleon*, whereunto you shall add a little flower of fenegreec and linseæd, oyl of lillies, with a little leaven. After it be taken from the fire, put to it two yolks of eggs: this remedy appeaseth the dolour and procureth matter. For the same effect we use the emplaster called *Diachilon magnum* or *Basilicon*: the suppurative made, we know by the diminution of the accidents, and the tumor which is pointed, also by pressing on it with the two thumbs, we finde it soft *Paulus lib 4. cap. 17.* *Gal. 2. ad glau. ca 7 & lib 5. simpl. cap 8. & apho. 22. lib. 5.*

with

with great inundation: then if it open not shortly of it self, it must be done by a cauter or lancet, otherwise it wareth hollow and putrified within: in the opening of it, there are three rules to be observed, as you have heard in the generall chapter: in making of your incision, let it be in the inferiour part, that the matter may evacuate the better, but take heed it evacuate not too much at one time: the incision must be made in length, eschewing nerves, sinows, veins, and arteries. *Avicen* counsaileth to open by the breed which I do not observe: when it is opened wee use the yolk of an egg, with a little Turpentine, and oyl of roses for a certain space, thereafter honey of roses, or sirop of roses, Mundificative *de appio*, *Apostulorum*, or other Mundificative set down in the tenth Book of this work: sometime I doe add a little *Ægipriack*, specially to those ulcers which withstand the former remedies. The ulcer being cleansed, I mingle a little *Terebinthin* and honey, with the powder of *Iris*, *Alloes*, and *Thus*, or a little *Unguentum aureum*, with these powders: thereafter, the plaster of *Diacalcythcos*, *deficcativum rubeum*, *Diapompholegos*, *Cerussa*, *Deminio*, & such like, that hath the virtus to siccatrice and heal the ulcer.

Gal. 13 meth cap. 15
How to make the incision.

Avicen cap. 6. lib 1.
Gal apho. 27. lib 6.
Celf li. 7 cap. 2

Chapter III.

¶ Of Epinictis, Terminthus, Terebinthus, Figethlon, Fima, and Ectimata, which proceed of Phlegmon.

Because that the most part either of old or new writers, hath made small mention of those tumors. So that the young Chyrurgion may be the better instructed, I thought good to speak of them in this place, beginning with Epinictis, which is an evill pustule, brownish of colour and very painfull,

painfull, chiefly in the night: this ulcer by it self oftentimes doth occupie the corner of the eyes, avoiding a water sanguinolent, which sheweth it to be ingendred of the like cause, as Carbuncle. Yet not so vehement, in respect it hath no communication with the contagion: for the cure whereof have recourse to the Chapter of Carbuncle. *Cels. li. 5. ca. 28.* *Paulus lib. 4. cap. 9.*

Terminthus is a tubercle or little tumor, almost of the same nature, proceeding of an hot burnt blood covered with little black round pustules, which by their vehement heat produce an eschar: it possesses for the most part the thighes, and is cured, as the former.

Therebinthus is thought by Oribasius to be a kinde of *Phima*. Upon it appeareth little black round pustules, which being opened, avoideth a filthy frothing matter, and is cured as for the former. *Pa. li. 4. ca. 29.*

Phigethlon is a tumor or inflamation in the glandulous parts, ingendered of an hot fiery blood, when it doth appear in the inguen, it is called *Bubo*. *Gal. 2. ad glau. cap. 1.*

Amatus Lusitanus is of opinion, that this tumor proceedeth of a cholerick humor mingled with some pituit. There is a sort of it that appeareth under the axilla orter and jawes, or parotis cragg, and is pestiferous.

Of those small mention hath been made of our ancients, which maketh me beléeve they have not bin known in those hot Countryes: it is commonly with fever, sometime it commeth before the fever, other times after the same, proceeding of the like humor as Carbuncle, save only the matter is not so fiery and hot, but the cure is little different: in this yée must abstaine from repercussives in respect of the malignitie; use suppuratives, as counsaileth *Fernelius*. *Cels. li. 5. ca. 28.* *Fer. li. 4. ca. 18.*

Phima is also a tumor in the inguen and parts glandulous, ingendered for the most part of the like humor, as the rest, it groweth slowly, and suppurateth hastily. It is thought by *Hippocrates*, not to occupie alwayes the inguina: The Greekes termeth it *Raccodes*, which is a tumor in the privy parts.

parts. *Galen* sayth the like: for the cure use anodins, suppuratives, and mundificatives.

Gal. ad glau. cap. 1.

Ectimata or Exentemata are called by *Hippocrates* and some other Latine interpretors, such as *Plinius*, *Papulas*, which are little bubs or pustules, that break out by themselves through the skinn, sometime in the head, and are ingendered of a corrupt, malignant, grosse humor, thought by the learned to be the rest of the menstruous humor: yet it is mingled with some pituit, as sayth *Plinius*, and *Fernillius*. It is called by some Latine writers *variole*, or *pituitæ ruptiones*, in vulgar, the small pockes: there is one sort of them called *morbilli*, or *scopuli* which are white in the middest, and red in the borders, they are little blobs upon the skin, produced of an ebulition of blood, putrefaction of the ayre, over great repletion of meat, specially fruit, retention of the moneths, or revolution of venomous blood: such blobs for certain, are discerned the first or second day, the third and fourth day they rise in tumors, and becomme white, thereafter crustous: yet, in some the malignitie is so great, that it doth not only corrupt the soft parts of the body, but also the solide and hard parts, as the bones, thereafter death ensueth, as I have divers times observed. As for the cure, in respect it is impertinent in this place, I will superside the same to my Book of Infantment, where shall bee particularly set down all the sorts of that disease, and others incident to young children, with their cures.

Hippo. lib. 4. cap. 9.
Plinius.

Plinius.
Fernell.

Lonicerius
Francofurtencis.
Paulus lib. 4. cap 8.

Chapter IIII.

¶ Of the Tumor, Furuncle, or Dothin, which proceed of Phlegmon.

Definition.

Furuncle, is a tumor that is sharp pointed with inflamation and dolour, chiefly when it greweth to matter, and is

is ingendred of a thick humor, in the soft parts, it groweth commonly to the bignesse of a doves eg, and is lesse then Phima, it occupieth for the most part the skin. *Celf. li. 5 ca. 28*

Galen saith that Furuncle is a tumor procreate of the like humor, as the burgens of the face, and comes in all parts of the body, and is of two sorts; the one like little kubons, is hard, and cometh slow to maturation: the other is firey, hot, and inflameth, provoking fever, yet differs little from Paima, except it is harder and more sharpe. The causes are externall or internall: the internall cause is abundance of gresse corrupt blood, ever boyling and burning, like that of Carbuncle, the which nature separating it selfe from the most pure, as unprofitable and evill, sendeth it to the circumference or externall parts of the body, and ingendreth Furuncle: the externall cause, is in the vice of the skinne, wearing of unaccustomed clothes, sodainly taking cold after great heat, or vehement heat immediatly after cold: retention of the monethly courses. The signes, It is pointed, red coloured like Phlegmon, suppured after the same sort, and in that it differeth from the simple Carbuncle, when it occupied the skin only, it may easily bee helped, but being more deep it is more painfull and malignant, The cure consisteth first in generall remedies, as purgations and bleeding, next lay on it a little Diachilon, with hens grease, or Basilicon. *Li tumor contra naturam.* Two sorts of Furuncle. The cause is two fold. *Hip. lib. de humid usu.*

Galen counselleth to chew wheat in the mouth fasting, and lay it on it, or figs sodden in Hydromell: or Allom cloven in two, and mingled with honey and linget, also Henbane beaten with butter may be applyed: If it be deep and much inflamed, oftentimes it degendereth into Anthrax and Carbuncle, and in that case it must be cured, as you shall hear in their proper Chapters. *Gal lib tumor contra natur. Pa. li. 4 cap. 23.*

CHAPTER V.

¶ Of Anthrax or Carbuncle.

Definition. THere is small difference betwéene Anthrax and Carbuncle, saving that Anthrax is the greeke word, and Carbuncle the Latine, and is so called, because it burneth the place where it is, like unto coales. Carbuncle is defined to be a pustule, inflamed, black, burning the place, it is sore with many blisters about it, as if it were burnt with fire or water. The cause is divers, according to the sundry kinds thereof; the cause of the simple Carbuncle is an ebulition of grosse blood, thick and hot, where it falleth in any place it burneth and maketh ulcers, with a scale, accompanied with great inflamation and dolour.

Cause. Difference. *Tangacius lib 1. inst Chyrur.*

Signes. The signes of the simple Carbuncle are these, there appeareth many little black pustules not eminent, sometime pale, which groweth sodainly red, with great inflamation about the place where it is, and is harder than it ought to be, the sick loseth appetite and coveteth slæp, accompanied with cold sweat and fevers.

Celf li. 5 ca 28 & lib 6. ca. 18.

The signes of the maligne, are vomiting continually, weak apetite, trembling, swounding, beating of the heart, the face waxeth white and livid.

Judgements. The judgements, if it happeneth neer the stomack or throat it telleth the respiration, as saith *Celsus*; that which ripeth and cometh to matter, is good; that which appeareth and vanisheth away, is mortall; that which is first red, then yellow is not evill, as saith *Avicen*; that which is first pale, and after black is evil; all those which are in the emunctories of the noble parts, be most dangerous.

Cure. The cure consisteth in universal and particular remedies, the universals are a good dyet, which shall bee cold and humid, as you have heard in Phlegmon, resisting alwayes the

the malignitie of the humor: his drink must be made with sirop of Lymons, *Acetosi Simplicis, Capilli veneris, Granatorum, Buglossi* with water of the said things; abstain from wine, and drink only water, as counsaileth *Celsus*. Use alwayes the tablets of *Diamargaritæ frigidæ*, conserves of roses, and buglosse, *bol armenie, terra sigillata*, and Ivorie in fine powder, of those ingredients you shall make opiats with sirop of Lymons and Triacle, using this epitheme on the noble parts, chiefly the heart. *Rec. aquæ scabiosæ, rosarum, nenupharis, an 2. unc. aquæ buglossi 1. unc. trochiscorum Rasis, camphori, an. 1. scrupul. corallorum rubrorum. 1. dragm. di. tria. sandal & boli armenici an. 1. croci & acetiparum fiat epithema* use glisters and bleed much, as counsaileth *Galen*, in the same side the pain is on *usque ad animæ defectum*. The particular remedies are these, first we make deep scarrifications, and wash it with water and salt called *aqua marina*, we lay horseleches on the scarrification, using a cataplasme on the part, of crummes of white bread, leaves of Plantine, Arnoglosse, flower of Lentills sodden in vinegar and hony. *Hippocrates* counsaileth to apply actuall cauters, or other causticke medicament, as oyl of Vitrioll, unquenched Lime, arsenick on the part *quoniam in extremis morbis extrema sunt adhibenda remedia*. We apply also ventosies, and other medicines, which have the virtue to draw the venome from the noble parts.

Arnoldus de villa nova counsaileth for the extinguishing of the Carbuncle, only to take the powder of Coriander, well bruised and mingled with honey, and applyed it on the part. *Paulus* doth counsaile to seperate with a rasour the infected from the other parts, and raised from the root.

Afterwards use this cataplasme to mitigate the pain and provoke the fall of the scale, composed of Lin-seed, Mallowes, violets, yolks of eggs, butter, and barly meal; for the sharpnesse of the humor put about the part infected *Unguentum de bolo*, and on the pustules, the pustules of *Andromma*, and *Musa*: When the scale is fallen, cleanse the ulcer

Arnoldus lib. 3. brevi. cap. 22.

Celsus lib. 5. ibid.

Gal. 14. meth. & 2. ad glauc.

Paulus lib. 4. cap. 25.

Hippocrates.

Celsus.

Arnoldus.

Gal. lib. 13. meth. cap. 6.

with sirup of roses, hony of roses, and turpentine, mundificative de appio, and such like: which being done, siccatrize and fill it up as other ulcers; some doe counsail to take Consolida major, and bray it betwéen two stones and apply to it.

Agria, what it is Agria is likewise a pustule malignant, of the nature of a Carbuncle, the skinn becommeth first red, in the end it eats and corrodes, but the cure is little different from a Carbuncle.

CHAPTER VI.

¶ Of Gangrena and Historiomen.

Definition. *Gal. 2. de locis affect. & 2. ad glauc. cap. 10.*

WHen the inflamation neither resolveth, returneth inwardly, suppureth, nor becõmeth hard, it degendereth in Gangren, which is a mortification, not altogether of the part, but tending thereto by little and little, through the great violence of the inflamation: for thereby the veins and arteries are stopped in such sort, that the naturall heat cannot passe, so the part easily doth corrupt and consume, and so wareth Gangrenat for lack of naturall and vitall spirits.

Cause. The cause is great quantity of blood in the member which letteth the spirits to passe, so bindeth and intercepteth the same in such sort, that the veins and arteries cannot work their transpiration and requisite exhalation: so for lack of naturall heat, the member doth suffocate. As also great application of cold medicaments in Phlegmon & Herespilis, *Gal 2. ad glau.* or by some violent externall cause, chiefly in the foot or hands which happeneth oftentimes by cold, crisis of fevers, or malignant and venomous maladies. As also straight ligatours, contusions, strokes, falls, or biting of venomous beasts, chiefly in the wayes and passages where the spirits doe pass, or by some pointed stroke upon the membrains, tendons,

or

or nervous parts. The signes are, if it come of inflamation, we perceive the red colour, dolour, pulsation and feeling to decay, it waxed pale, soft and black, and in pressing on it with the fingers, it falleth down and riseth not again, but if it proceed of cold, we perceive great beating, pain, coldnesse without motion or feeling, accompanied with trembling and shaking; and if it proceed by straight ligatours, binding, hurts, or biting of venomous beasts, we know by the precedent signes & others, according to the diversity of the cause. Signes.

The Judgements are, if it be not helped presently, the force of it is such that the part dieth presently, as also the parts adjacent, and so causeth death of the whole body: but if the muscles and nerves be not hurt, and the person young and of good constitution, and well handled in the beginning, it is not so difficult. The Cure, after generall remedies, like as purgations, bleeding, and dyet, it consists in using of cordials with deep scarrifications on the part, then washing it with Aqua marina, then applying Cataplasmes made of flower of beans, barly, orob, and lupines sodden in vinegar, putting thereunto a little roses, myrhe, mirtles, and Aristolochia, washing often the sore with orimel, decoction of *Abrotonum, Abscinthium, utriusq; centorium gentiana*, and such like: beware of cold, and use warm clothes, and all other such things as hath the virtue to entertain the natural heat: you may also use Aqua vitæ, with triacle, Mithridate, and a little Calcantum, if it be rebellious. And if it be necessary to use more strong remedies, you shall take Egiptiack and mingle therewith a little Arsenick or Orpimont, and apply to the scarifications, which remedies must all be used with good judgement; noting well when the Gangren ceaseth, and the fury of the malady be almost past, then cause the scarr to fall with hony, butter, yolks of eggs, and other fit remedies. If none of those prevail, but that the Gangren doth become in Sphacell, we must use the like cure as we doe in Sphacell, to fortifie the rest of the body as you have heard.

Judgements.

Celf. li 5 ca. 17.

Cure.

Gal. 2. ad glau. cap. 9.

Paulus lib. 4. cap. 13.

Cataplasme for Gangrena.

Celf. li. 5 ca 26.

Chapter VII.

¶ Of Ephasell.

Difference. *Gal 2. ad glau cap. 8.*

We must here consider the difference betwixt Gangrene and Sphasell, and know that Gangrene is the latin word, & is a mortification of the parts it happeneth in, except the bones, and is curable: but Sphasell or sideration, is a mortification both of the soft and solid parts, which is no way remedied but by amputation, som do call it S. Anthony or S. Martials fire.

Cause. *Albuerasis, lib 2 cap 87.*

The causes are like as you have heard in Gangrena, besides it is joyned with the evil disposition of the humor venomous, which for the most part doth corrupt the bone before it maketh any external shew, it doth somtime proceed of old ulcers, which have been long oppressed with a rotten filthy matter, which corrupteth the bone, and causeth mortification. Likewise cold, as chanceth to people who are in prisons, ships, camps, or in cold countries, as oftentimes, happeneth in Sweden, and such cold countries. Likewise biting of vipers, mad dogs, and other venemous beasts.

Signes.

The signes are these, the member wareth black, like as it were burnt, afterwards it becommeth rotten, and in short time it overthroweth the whole body, in such sort that the skin doth come from the flesh.

Judgements *Cels. li. 5 ca. 26.*

The judgements are, it is for the most part incurable, and commonly the patient dieth in cold sweats.

Cure.

The cure consisteth in remedies general and particular. The generals shall consist in purgations, dyet, and bleeding which may bee observed also in the time of the obstirpation, by suffering the blood to flowe, which both discharageth the part, impasseth the fever and other evill accidents which might happen. It were good in this to use cordial remedies, both before and after the amputation for strengthening of the body, as also to impasse the evill vapours

Use cordiall remedies before and after amputation.

pours and fumes which might ascend and make motion. For this purpose you may take a dram of Theriaca, with the water of the flowers of Borage and Buglosse, strop of roses, and Buglosse may be used and applyed on the region of the heart; also epithems of Roses and Buglosse water of each three ounces, with Vinegar, wherein Squilla hath been sodden six drams, Theriaca, and Mithridate of each 2. drams, Camphir 2. scrup. with the three cordiall flowers, of each a little, Saffron 1. scrup. mingle all together and apply to the heart, with a little piece of scarlet cloth, making it warme before it be applyed: thereafter you shall goe to the amputation of the member, which shall be done in this manner. The friends being first advertised of the danger, because that oftentimes death ensueth: for the which cause the learned Celsus calleth it a miserable remedie, so that I thinke the expert Chyrurgions should assay all remedies, before they come to that extream remedie, which is done with great danger, chiefly in doing of the operation, and that either for flure of blood, fear, faintness, & sounding after it is done. Likewise there happeneth often fevers, ravings, extream dolours, convulsions, cold sweats, and oftentimes sodain death: for the which the parents and friends should be forewarned of the danger which may happen, and that they should advise whether (upon hope of recovery) it be more expedient to assay that extream remedie, or otherwise to referr it into the hands of the Lord. Yet by our daily practise, the most part do use it, because in so doing there is some hope of recovery: and in not so doing, there is nothing to be expected but suddain death, and better it is to loose one member, than the whole body. As concerning the place of amputation there is diversitie of opinions.

The manner of amputation.

Celf. li. 5 ca. 26.

Celf. li 5. ca. de Sphalo.

Hippocrates and some others counsalleth to cut in the joynt, alledging it to be more easie to be done, for in so doing the marrow is not discovered, as in other parts, nor the flure of blood so great. Others think best to cut four inches from the joynt, either above or under, according to the

The place of amputation.

the circumscription of the putrifaction which is both more easie and surer than in the joynt.

4 Inches from the joynt.

For those causes and divers other circumstances which might be here alledged, I advise to make the incision four inches from the joynt in all amputations, except only when the mortification or riving of the bone end in the joynt, then it must be cut in the joynt, chiefly the joynt of the knée; alwayes it is hard to ciccatrize and heal, by reason the end of the bone is spongious and humid, so the leather to conglutinate: but wheresoever you make your amputation, remember to mark it well with ink or others, and to cut rather a little of the whol, than to leave any portion of the infected. If any of the infected remain, it corrupteth the rest, and so requireth new amputation, as I have often séen.

Scituation of the sick.

The place of amputation being so remarked, wée scituate the sick in a fit place, having respect both to the nature, qualitie of the part, and our own commoditie. For this purpose some doe set the sick on a bed side for fear of sincops. I my self use only a chayre, which I finde most commodious both for the sick and Chyrurgion, because it may be commodiously placed: which done, you shall have two men to hold and attend upon the Patient, then the Chyrurgion shall command the sick to bend out, and extend that member, to the end the skinn, veins, arteries, and nerves may bée more lengthend, and after the amputation may bée more apparant to bée knit or cauterized. That being done, the Chyrurgion shall pluck up the skinn and muscles as much as he can, thereafter he shall takes strong ribben, and binde the member fast about the place of the member, two inches above where the amputation shall be.

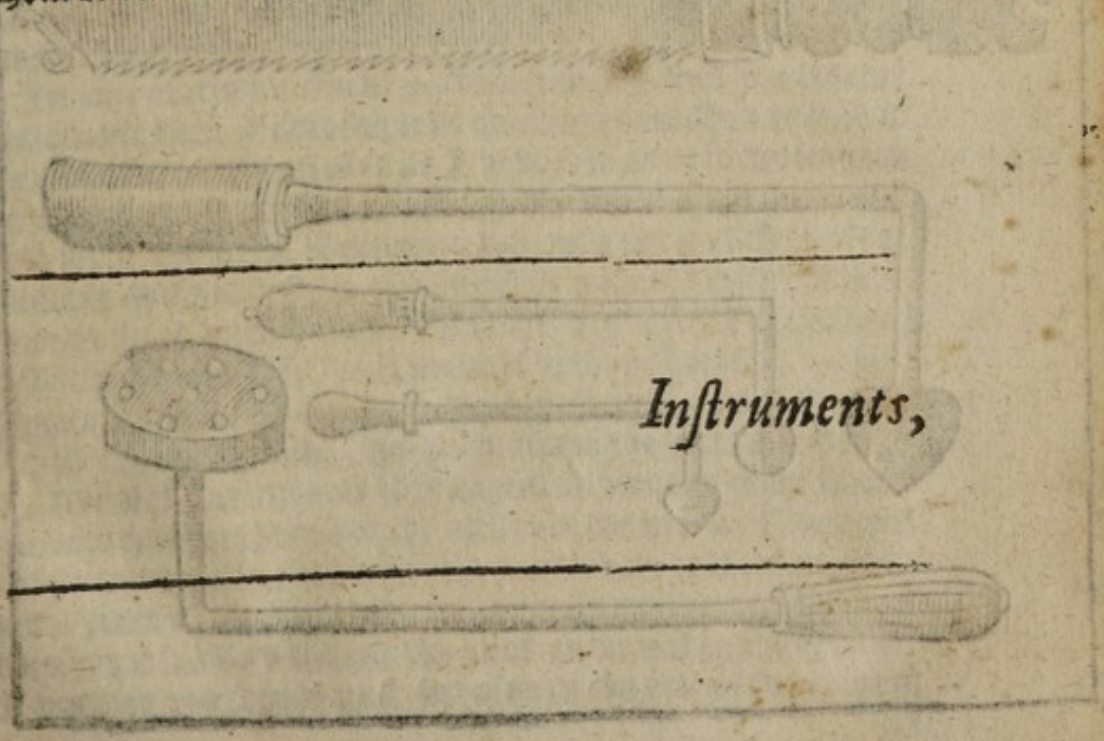
Binde the member with a ribben.

The usage of this ribben or band is divers. First, it holdeth the member hard and fast, so that the instrument or incising knife may cut more surely. Secondly, that the féeling of the whole parts may be stupified, and rendred insensible. Thirdly, that the flure of blood may be stayed. Fourthly, it holdeth up the skinn and muscles which must cover

the

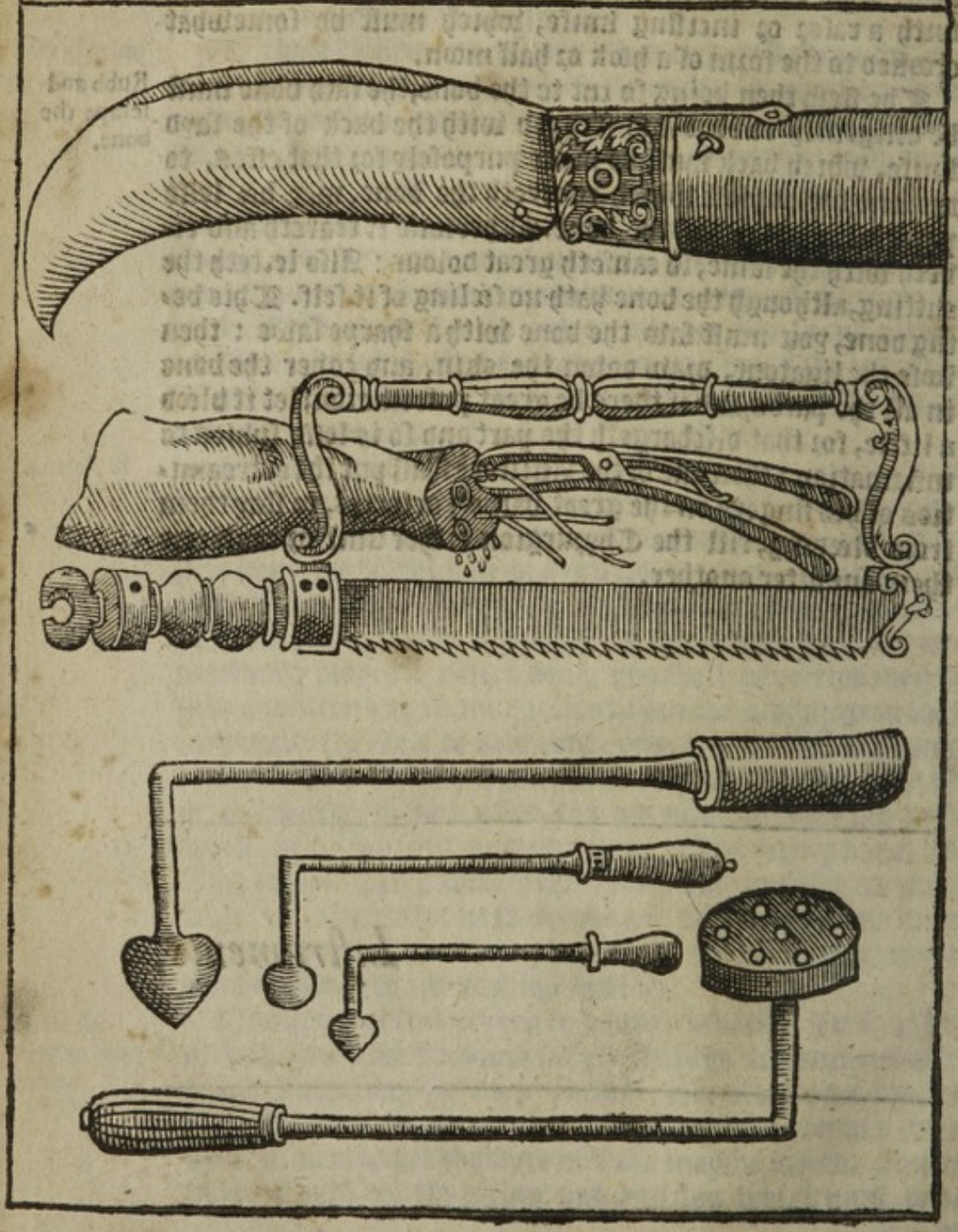
the bone after it be cut, and so it maketh it more easie to heal. The bandage then being thus made, wee cut the flesh with a rasor or incising knife, which must be somewhat crooked to the form of a hook or half moon.

The flesh then being so cut to the bone, the said bone must be diligently rubbed and scraped with the back of the sayd knife, which back must be made purposely for that effect, to the end the periost which covereth the bone, may bee lesse painfull in cutting of the bone. Otherwise it teareth and riveth with the same, so causeth great dolour: Also letteth the cutting, although the bone hath no feeling of it self. This being done, you must saw the bone with a sharpe sawe: then loose the ligatour, draw down the skin, and cover the bone in all the pares; and if there be great putrifaction, let it bleed a little, for that dischargeth the part and so is lesse subject to inflamation: then one of the Assisters shall put the extreamities of his fingers on the great vaine & arteries, to stay them from bleeding, till the Chyrurgion either knit or cauterize them one after another. Rubb and scrape the bone.



Instruments,

Instruments, and Cauters actuals, for extirpation.



as he ſhall think expedient. But where there is putrefaction, we ſtay the flux of blood by Cauters actuals, and where there is no putrefaction, malignitie, nor humor venemous, we uſe the ligator. The Cauter or actuall fire maketh ſcale, ſtayeth bleeding, conſumeth and drawetb into it the virulency and malignitie of the humor which is in that part, and in that point it is more ſure and better than knitting. In knitting we loſe much blood, and by drawing the veines with the back, decurbing, or other inſtrument, they doe breake. Alſo being knit, doe often unloſe, ſo that I find the fire more expedient, being done and applyed meanly. Then to doe it, we muſt have three or foure little inſtruments of Iron, crooked at the end, with a point in form of a button; of which, ſome be round, ſome ſlate, and ſome broad, to rub on the end of the bone.

How to ſtay the fluxe of blood by actuall cauters.

It hath the virtue to dry and corroborate the ſame, being made red hot: then we take eyther of them and apply on the veines one after another, continuing them a certain ſpace till the ſcale be made, taking heed alwaies not to burn overmuch of the vein.

In amputation without putrefaction, I find the ligator reaſonable ſure, providing it be quickly done. To doe it firſt thou ſhalt cauſe the aſſiſter as I have ſaid, to hold his fingers on the veines, letting one loſe, on the which thou ſhalt take hold with the back Decurbin, taking a little of the fleſh or muſcles with it: then put through a needle with a ſtrong thread, knit with a double knot, tying a little of the fleſh with the veine, which will make it hold the better: but if it ſlip, as oft it happeneth, you ſhall firſt put through the needle in the utter skin, an inch above the wound, neere to the ſide of the vein, cauſe it to come forth by the other ſide of the veine, yet higher then the orifice of the veine: Then put out your needle an inch from the part where it went in, then put a piece of cloth in two doubles betwixt the two threads, then tye it hard, to the end the knot enter not in the skinne. This way and forme muſt be uſed in the reſt of the veines,

as

as also in divers other parts of the body: The blood being so stayed, wée use an astringent powder, as this. *Rec. boli armenici* ʒ ounces, *farine volatilis* 2 ounces, *picis, resinæ, sanguinis draconis an.* 1 *dragm.* of this powder you shall straw on the wound with drie flax or caddesse. Thereafter an astringent or defensive made of the aforesaid powders, whites of egges, and oyle of roses, applyed on flore in like manner, the which flocks or caddesse must be wet in oxicrate, and be of such breadth as may cover the sore, thereafter take a double cloth, not only sufficient to cover the sore parts, but likewise the parts adjacent, also wet in oxicrate and anointed with the foresaid defensitive: The bands must be also wet in the said oxicrate, then bind it well in such sort that it be neither too straight nor too slack, then scituate the member in good sort, and remove it not for three daies, chiefly in winter, but that must be observed according to the accidents which doe happen.

Powder to stay the blood.

In changing of those remedies, beware to take away the scarre or knot of thread, and for avoyding thereof wée rub first the part with cerot Galen, to the end the defensive cleave not fast to it.

If it happen any veine or artier open, you shall dissolve a little Nitreoll in Vinegar, and lay on the veine or arterie with flox the breadth of a groat or six pence, this will presently stay it, as I have often proved.

To stay an arterie or vaine if it open.

If it happen that two or three of the said veines doe open, cause thy servant to put his fingers on them, and tye them as you have heard.

The second dressing must be done in the same manner, with some astringent, chiefly on the veines and arteries, & so continue till there be no more feare of blood, which will continue eight or ten daies: On the rest of the wound, you may use a digestive made after this forme.

Take Turpentine well washed in Plantane water 4 *unc.* honey of Roses 1 *unc.* Barley flower half an ounce, two yolkes of eggs and a little saffron, incorporate all well together,

gether, and apply to the ſore till it be perfectly ſuppurated, then uſe mundificative *de appio apoſtulorum*, or my own mundificative, with this emplaſter, compoſed of equall portions of *Diapalma* and red Deſiccative, for a time, next uſe this Siccatrizant to the entire curation.

Take *tuthia præparata, plumbi crudi, antimonii crudi, corticis mali granati, balanſtiorum, nucis muſchatæ, boli armenici, ſanguinis draconis, an. drag.* 1. *accipiantur omnia ſimul cum tribus unciis unguenti diapompholoqos & fiat magdalion bonæ conſiſtentiæ.*

In the mean time, if there be any exceſſe of fleſh, it muſt be corrected with powder of Allom, Savine, and Oker, or powder of Mercurie, taken in ſmall quantities: theſe or either of theſe may be applyed alone, or mingled with ſome Unguent. To corroll the over-growing fleſh.

Leggs

Legges of wood.

All the form of this operation is most learnedly and skilfully practised by my good friend Master James Hervey, chief Chyrurgion to the Queens Majestie, who hath written divers learned books of Chyrurgery, and in practise hath excelled the most part in his time. Her Majesties chief Chyrurgion.

But for further declaration of the premisses, I will recite a History which happened during the siege at Paris: where, through great hunger, cold, and other miseries, happened many grievous sicknesses, as Gangrens and mortifications: amongst the which there was a Spanish souldier of that Regiment (whereof I was Chyrurgion major) who had a blacknes or little spots in his foot and toes, as if they had bin burnt. I did cut of his toes and scarrified the rest, and after used such remedies that he shortly healed. Historie.

Soon after, happened the like in the other foot, which I would have cut and cured as the former: but he and his fellowes esteemed it a deformitie, and would not suffer the same. So the griefe daily did augment with such violence and furie, that by the advise of the best and learned Chyrurgions in Paris at that time, I was constrained to cut off the whole legg, and so did help him. At this same time there was a wife in the coyning house of Paris, at which time the Citty being scarce of money, and hardly besieged, they did coyn brasse and copper, so this woman by the continuall sorting and telling of this coyn, there did enter of the ewre of that brasse and copper under the nailes of her fingers, which infected the whole points thereof, shortly they became black and insensible: whereupon deep scarrifications were made, with lavements, & all other fit remedies which might be devised; notwithstanding we were constrained to cut off three of the formost joynts of the fingers. Thus have I alleadged to shew the danger of delay, that if any such thing happen, it should not be deferred; but diligently proceed as you have heard. And thus I end the Tumors which proceed of the sanguine humor, and shall prosecute the rest God willing. Historie.

Chapter VIII.

¶ Of the extirpation of superfluous fingers and toes, with such as are corrupt and bruised.

Six fingers or toes.

IT happeneth oftentimes in the hands and feet, that there is implanted against nature, six fingers or toes, or more; to the great deformitie of the part, and hinderance of the action: There may likewise happen in those parts Gangrens and mortifications for diverse causes, as you have heard in the last Chapter: Like as you shall hear in the Chapter of Panaris and Paranychia, the which maketh oftentimes corruption in the bone before any outward appearance, so that for either of those causes, the Chyrurgion is oftentimes constrained to cut off the whole finger, or at least one joynt, or some portion thereof, if fit remedies prevaile not: then to doe that operation, you shall be meetest, and with smallest pain to be done, with Tenals incisives.

Paré.li.6.ca.43.

Tenals

Tenals incisiues, to cut off fingers and toes.

How to take them away. *Alb. li. 2. 47.*

which in one instant cut both flesh and bones. Some for this purpose doe use a sharpe Chizell and a Mallet, laying the member on a blocke, and so cuts it off, which form neither doe I think so good, nor so methodicall as the former. The extirpation being done of one joynt, two, or halfe, as shall be requisite, you shall stay the flux of blood, thereafter follow out the rest of the cures, as you have heard in the precedent Chapter. Here followeth those Tumors which proceeds of Choller.

CHAPTER IX.

¶ Of Tumors bilious, called by the Latines *Flava bilis*, and first of *Erysipelas*.

Haly Abbas. lib. 2. cap 8.

WE have said that there were two sorts of hote tumors, to wit, Phlegmon, whereof we have spoken, and Eresipelas, whereof wee meane to speake. Eresipelas, is a tumor which proceedeth of the cholericke humor, accompanied with great inflamation and colour, for the most part not eminent without pulsation: It is pale or red coloured, and is called by the Greekes *Erisipelas quoniam adhaeret Pilis*: for, by the subtiltie of that humor, it commeth to the superfice of the skinne, and is called in Latine *Ignis sacer*, in the vulgar, Wilde fire. It differeth little from Phlegmon. Some esteem them to differ, by reason the one proceedeth of blood, and the other of Choller: They differ also in colour, the one being red, the other oftentimes pale. Phlegmon entreth deep in the muscles, the other remaineth in the skinne. Of this disease there are two sorts, the true Eresipelas which cometh of Choller only, but when it is mingled with the grosse humors, there cometh three kinds of it, as you have heard in Phlegmon. The cause of this tumor is abounbance

Self. li. 5 ca. 29

Difference. *Arnoldus de villa nova. Gal. 2. ad glau.*

Cause.

dance of cholerick humor, great heat of the Sun, strokes, falls, and using of hot medicaments which moveth flurion, and draweth humor to any part of the body.

The Signes are those, the tumor is very vehement, burning hot, dolorous, and mordicant, it doth seldome come to maturity, it appeareth oftentimes in the neck and face, by reason of the tendernesse of the skinn, the colour is not perfect red, but mungled, and is somewhat pale. When it is touched, it doth suddainly vanish, and shortly returneth again. It is dolorous without great pulsation, yet with great fever, not unlike to the fever Tertiane, it beginneth for the most part with pain in the thighes, and tumor in the liskes or inguen. Signes. Tagaultus lib. 1. cap 8.

The Judgements, the simple Erefipelas endeth rather by resolution, than suppuration. The other, which Cellus calleth wild fire or *Ignis sacer*, participates, with the excrementous parts of the cholerick humor, which being more thick doth not passe, so exulcerateth, which is better than if it strike in: that which commeth forth, is good; that which appeareth in the face and in wounds, is evill; those which happeneth in the matrix is mortall, also causeth the death of the fruit; those which appear in the head are very dangerous, and if good remedies be not used, the party dyeth, as sayth Paulus Ægineta. Judgements. Celf. cap. citato. Hippo. aph. 19. lib 7. Hippo. 29. aph. lib. 6.

As touching the cure, there are two things to be observed, evacation generall, diversion, corroboration of the part recipient, refrigeration with consolidation of the part: the way of life must be cold and humid, contrary to the humor which is hot and drie, as you have heard in the generall Chapter. Abstaine from wine and other strong drink, all things that are sweet, sower, and bitter sauces, from anger and vehement exercise, great heat, and such like. The humor must be evacuated by purgations, glisters, bleeding, and sometime scarrified, if it become livide, being first fomented with hot water, using things on the sore which bee cold and humid, and that with great Judgement. Apply on the sore the juice Cure. Paul. l. 4. ca. 21. Celf. li. 5. ca. 26.

or water of Solanum, Houslæke, Lettice, Succorie, Umbilicus Veneris, Cucumber, wet a cloth therein and apply: When it is in the face, cold water and oxicrate may be used, as counsaileth Galen and Avicen. For the same purpose I doe often use *Serot Galen* oft washed in Rose and Plantane water, as also *Rosatum mesues*: if there be vehement dolour as often chanceth, the roots and leaves of Henbane rosted under the ashes, and mingled with a little populion, is very good; also *Unguentum album cum camphora*. Likewise a cataplasme of barley flower, linsæd sodden in Hydromell or oxicrate, putting to it a little powder of Camomile, and oyl of Roses, all those remedies must be liquide and often removed, and the sore well cleansed that nothing remain on it; if it be come to a bile or ulcer, and is cured as Herpes.

To cure it in the face.

Formica. Error of the Chyrurgions.

As touching *Formica* & *Ignis persicus*, the signes and cure differeth little from Eresipelas, yet you must note that divers Chyrurgions doe and have committed errour in the cure of this disease, estæming it to procæd of a malignant furious humor, for the which they ever apply cold medicaments not regarding purgations, blæding, comforting of the part, neither the time when these cold medicaments or resolatives should be applyed. For the which I have sometime sæn ensue Gangren and mortification, wherefore the skilfull Chyrurgion should abstain from those cold medicaments: when the inflamation, redness, and heat doth diminish, you may apply such things as you have heard before. Thus I have thought good to advertise the young Chyrurgion, because such accidents happen, as I have sometime remarked.

Chapter X.

¶ Of Herpes.

Gal. 2. ad glau. cap. 1.

Herpes, is a little ulcer accompanied with tumor, procæding of a pure bilious humor, without mixture of any other humors, it occupieth most commonly the extremities

ties and outward parts of the skinn, and is comprehended under Erefipelas, like as Formica and Impetigo, which are little cholerick pustules: the old Greekes doe make three kindes of it. The first, is made of the thinn choller which burneth the skinn, and is called simple Herpes. The Second, is made of a more thick choller, which ulcerateth a great part of the skinn, and is named by the vulgar Wilde-fire, or Herpes depascens, because it eateth and consumeth the skinn to flesh. The third kinde, is made of choller and pituit together, accompanied with some malignitie, as commonly it happeneth to those who are infected with the Neapolitan or French disease. It is called by our ancients *Herpes miliaris*, because the pustules of it are like unto the grain called *Milium*. These pustules have divers denominations, some call them *papulæ* or *pituitæ eruptionis*: others doe call them *Ecthimata*, some doe call them *Exanthemata*. The Cause and Signes differ not from those which you have heard in the precedent Chapter. As for the cure it doth consist in three parts, first in staying the fluxion by evacuation universall, provocation of urine, and good dyet, as in Erefipelas. Secondly, in evacuating that which is in the place, by such things as have the virtue to discusse, digest, and dry lightly, and not humect: then in the beginning you shall use Vine leaves, Plantine, Goose-berry leaves, Arnoglosse, putting thereto a little Barly flower, with some honey, also the bark of the Pomgranet dissolved in wine, with a little fine flower made in form of a cataplasme. The third intention is in drying up the ulcers, for all ulcers whatsoever require desiccation by gentle medicaments, excepting alwayes the maligne ulcers, in the which you must use more strong and mordicant remedies. First, you shall use fomentations of Roses and Plantaine sodden in wine or water and an unguent made of oyl of Walnutts and Ware, thereafter washed well in Smiths water, also *Unguent rosat* is good: or this unguent thus made. *Rec. Unguenti populionis seruati refrigerantis Galeni cerusæ an. drach. nn. dim. litargyri. unc.* 3. *olei*

Differences.

Gal. Coment. in apho. 45. lib. 6.

Divers denominations of Herpes.

Cure.

Gal. 2. ad glau. & 14. meth. cap 7.

Pa li. 5. ca. 20.

3. *olei rosacei unc.* 1. *malaxentur omnia simul & fiat unguentum.* The other pustules, like as *Formica* and *Impetigo* are cured commonly by generall evacuations. As for other defedations of the skinn, which proceed of the melancholick or cholerick humor, they are cured by universall evacuations, sweating, bathing, else by applying some unguent on the part affected, like as *Unguentum Enulatum*, putting thereto a little *Mercurie*. It is excellent for this purpose, as also to kill the itch which happeneth to yong children. Or this, take Enula Campagne roots, seeth them in the juice of Plantane, Fumuterie, yolks of Eggs, Hoggs grease or fresh butter, being all mingled together, put thereto a little brimstone well purified with oyl of *Hypericon*, make an unguent of good consistence.

Rogerus tra. 2.

Chapter XI.

¶ Of Tumors, which proceed of the pituitous humor, and first of *Oedema*.

Having spoken of the two hot tumors, and of those which commonly come of them: now in like manner I shall shew you of the two cold tumors, the one ingendered of melancholy, as you shall hear at length in that Chap. the other of Flegm or pituit. Oedema is a soft tumor without dolour, white coloured. Of it there are two sorts, as of Phlegmon; the one the true naturall Oedema, ingendered of the pure Phlegmatick humor; the other is made of Flegmon, mingled with the other three humors, and taketh divers names according to the principall humors, as you have heard. And like as there is two sorts of it; so it may be named two wayes, to wit, either Malady or Symptome of Malady, as happeneth in the feet, and leggs. In such as

Definition.
Gal 2. ad glau. cap. 3.
Difference.

are

are oppressed with abundance of cold watry humors, called bythe Phisitions Cachectickes. Also those which are become Edematickes through long sicknesse, which accidents are called Maladies, and they require no particular curation, save only rubbing the part with oyl and salt, water and salt, or oxicrate, wetting a cloth therein, and lay on it: Also strong Claret wine mixed with Smiths water, and apply it warm after the same forme, the wine doth corroborate and dry. *Gal aph. 2. sect. 1. & lib. 1.*

The Cause is a phlegmatick fluxion of humors, pituitous and flatuous in any part of the body: Also imbecillitie of the part which receiveth, and can neither digest nor expell that which is hurtfull, also great idlenesse. The tokens of these, the tumor is soft, cold: in pressing on it with thy fingers, there remaineth a hole, and riseth not again. It is clear, and not dolorous, & happeneth oftenest in the weakest parts, as in the joynts and glandulous, and in the extremities, as in the face, leggs, and feet, cheifly in cold weather, and old people, or after long sicknesses, in people that be full of humors, and make no exercise. Cause. *Gal 2. ad glau. cap. 3.*

The Judgements, this tumor hath four degrees or times, as others have, the beginning, augmentation, state, and declination. It happeneth oftner in Winter then in Sommer, because that season doth produce the cold phlegmatick humor rather than any other. This tumor turneth seldome in matter: except in hot places, by reason the matter is cold, it endeth oftentimes by resolution: Sometime it turneth to Schirr, nodosities, or some other cold abcesse, which happeneth by the great usage of digestives, which maketh the matter ware hard. Judgements. It hath four degrees.

In the Cure there are two points to be observed: first, to divert the fluxion by remedies that hath the virtue to cleanse the pituitous humor called Phlegmagogis, as Diacatolicon, Diaphenicon, Diacartami, Agrick, Pillulæ, Cochia, Diaturbith, and such like. For the administration of the which, you shall use the counsaile of the expert Phisition or Chyrurgion: as also in dyet tending to hot and dry: eate Cure.

roasted

rosted meats rather than sodden, but a little quantity, abstain from all things that bréed flegmon, like as fruits, pottage, chéese, fish, hearbs, water fowles, sadnesse, and much sléep, drink wine with little water, use well baked bread, with things to corroborate the noble parts. Abstain from women, chiefly the sick being weak: yet some doe commend the usage of women in maladies pituitous, for it heateth and dryeth, use moderate exercise, hold ever the belly lose: abstain from bathes, and all things that humects: also from bléeding, although it be commended by Guydo, for it is hard to find in a body that is phletorick a true Edema. The second intention consisteth in taking away that which is in the place, which shall bée done according to the times and degrées of the tumor: first then you shall use medicaments repercussives, and discutients, which shall be weak and not strong.

Gal. li. de attenu. victus. ca. 1

Car. 2. de sanitten.

Guido tract. 2 de apost.

Galen doth much commend oxicrate, by reason the vinegar repelleth by the cold virtue, and resolveth by the dry virtue: if it be not sufficient, mixe with it a few ashes of the Oake trée, *sal niter* and some Claret wine: also the emplaster *de vigo*, or a fomentation made of Camomile, Melilot, Rosemarie, Sage, Wormewood, Origan, Isope, and Red-roses, of each one a handfull: salt and sulphure, of each one an ounce, séeth them all in Smiths water, with a little vinegar, and foment the part with a spung or cloth: you may also make a *Lixivium* of the cinders or ashes of the fig or vine trée, as counsaileth Avicen, it drieth and cleanseth mightily. If néed be, of stronger desiccation, use this remedy set down by Brunus; take Alloun, Sulphure, Myrhe, and Salt, of each a like quantity, mixe all with vinegar, of Roses make aligament. For the same purpose you may make cataplasmes of flowers Beanes, Lentiles, and bran sodden in vinegar, putting thereto Anisées, Myrtill, or Iris, and plaster of melilote is also good.

Gal. 4 meth. ca. 4. & 2 ad glauc.

Pa. li. 4 ca. 27 Avicen tract. 2 cap 3.

Brunus lib. 2.

Rogerus also counsaileth to take juice of walwort, Sorrell, and Marrubium, take of every one of them a reasonable quantity,

quantity, and seeth them with *Unguentum de althea*, honie, oyl, and butter, make a cataplasme thereof. If it war hard, you shall use this *Rec. Axunge. bubuli unc. 3. galb bdelli ammo. in aceto dissolutorum sing. unc. 1. picis unc. semiss. therebinthinæ. 2. unc. myrrhæ drach. 3. corticis thuris drach. 2. olei veteris unc. 2. fiat unguentum.* If it tend to suppuration as often happeneth in hot parts, use this suppurative, take the roots of althea, 3. unc. Lillie roots, 2. unc. Camomile and Melilot of each one a little handfull, flowre of Drobs and Fenegreek, unc. 1. beat all these and mixe with Hennes grease, butter, oyl of Lillies, and Camomile, of each half an unc. make a cataplasme, cleanse the ulcer, and cure it as other Apostbumes. If it ware hard and schirrus, cure it as you shall hear in the Chapter of Sch.r.

Comment in aph 41. l.b. 1.

If it tend to suppuration.

CHAPTER XII.

¶ Of the windy Tumors that depend of *Edema*.

YEE have heard in the generall chapter, divers kinds of phlegmatick tumors which pertaine to Edema, whereof I will now speak, beginning with the windy tumors, which are nothing else but certaine winds and inflations, ingendered by a spirit thick and vaporous and not of a subtill and aierius substance. Sometime those winds are inclosed under the skin and within the membraines, which maketh distention, & sometime dolour according to the part where it is. They are sometime in the ventricle, puddings, and capacity betwixt the puddings, and periton, as in Tympanies, which sound like a drumm. Those winds are sometime dispersed amongst the muscles, which is properly inflation, & differeth from Edema, for in pressing on it with the fingers

Gal. 13. meth. cap. 4.

Definition.

Avicen lib. 4. cap. 2.

The place where they are.

Difference.

fingers, the print or seal doth not remain. The other kind of it doth approach neer unto Oedema, which is, the flatuosities dispersed in other parts musculous.

Gal 2. ad glau. cap 6.

Cause *Gal lib. symp. caus.*

The Cause of tumor, is too much usage of cold flatuous meats, phlegmatick, which causeth these winds. The cause also may be in the ventricle and guts, in like manner in the obstruction and straightness of the passages, and imbecility of the naturall heat, sayth Galen.

Signes. *Gal 2 ad glau. cap. 6. Paul li. 4. ca. 28.*

The Signes are Tumor, softness more clear than Oedema; and by pressing on it with the fingers, there remaineth no mark as in Oedema: by knocking on it, it soundeth like a bladder full of wind, and in that point it differeth also from Oedema.

Cure.

The Cure doth consist in two points; first, in dyet which shall be hot and dry, eating little and of light digestion, good bread of wheat well baked, and salted, using things to corroborate the naturall heat, discusse the thick cold vapours, and to attenuate. Also to corroborate the ventricle with aromatick things and electuaries, as Diacalamintho, aromatico, Gariaphilaro, Diagalanga, Rose, and such like; Eate good flesh, as Mutton, Veal, and such like, rather rosted than sodden, the drink must be good Claret or White wine.

Car. ad finem lib 4 de sani. tuend.

The second intention consisteth in evacuation of the humor which is in the part, by topicall remedies, which have the virtue to clarifie and make the skinn thinn, to the end the vapours may passe out more easily: such are called discutients or carminatives, like as Anisseeds, Fennell, Isope, Parsly, *Baccalauri*, Juniper, Paritarie, Camomile, and Melilot, oyl of Iryn, and Bayes: Of those we may make cataplasmes, fomentations, or larives, as shall bee thought expedient: Also livements of Camomile, Rue, Lillies, and a little aquavite, or the emplaster called *Baccalauri, oxycroci, & de vigo*, mixed together make an emplaister and lay on the sore: also a new water spunge wet in larive, or *lana succida*, wet in warm wine and oyl, and applyed. If those vapours or winds make dolour, as commonly happeneth

Gal. 14. meth. cap. 34.

peneth in the cholerick passion: first, you shall appease the dolour, then evacuate the matter, which shall be done according to the habitude of the body where it is, and discretion of the learned Chyrurgeon, use likewise glisters carminatives, If those flatuosities be in the intestines, you may apply three or four great ventosites on the belly.

If it make dolour; how to heal it.

Pa. li. 4 ca. 8.

CHAPTER XIII.

¶ Of the watry Tumors which depend on *Oedema*.

Pau. li 9 ca. 27

Signes.

This tumor is a water or serositie, gathered together in any part of the body, but specially betwixt the skinne and flesh. The signes are like to the true Oedema, but the tumor is loser and doth not so resist the twitch, neyther doth it sound like wind, as the other. It is likewise more cleer, chiefly betwixt you and the light, as ye shall heare in *Hernia Aquosa*. The Judgements, it happeneth oftner in the extremities, as in the feet, joynts and cods, than in other places, because the watry humor doth easily descend, and dulleth the natural heate in those parts. The Cure differeth little from the true Oedema, and as it occupieth divers parts of our bodies, it taketh likewise divers names, as if it bee conteined within the periton, it is called a spice of Hydropsy termed Ascites, and that serositie descending in the Scrotum or Cods, is called Hydrocelon. If that watry humor come in the head, as somtimes happeneth under the muscles, pericran, or skin, it is called Hydrocephalon, If this bitter watry humor, either for the rottennesse or ebulition, become mixed with the blood in any part, it is called Phlictmas, which are little blisters or brownish blobs, which commonly happen in the hands, for the cure of those you shall heare at length in the proper Chapter.

Judgements.

Cure.

Gal. lib. 3. c. 2.

CHAP-

CHAPTER XIIII.

¶ Of the Tumors Phlegmaticks called *Atheorema*, *Steotema*, and *Melliseris*.

Pa. li 6. ca. 36. The matter whereof they are composed *Atheorema.*

Those tumors are commonly called excressenses phlegmaticks, by reason they procéed of the plegmatick humor; yet they differ from the other tumors, because they are inclosed in a membrain, little bagg, or chest: they are composed of divers sorts of strange matter, by the which they have taken their names, as hath béen remarked by the most learned amongst the antients. Atheorema is so called, because in it is contained a matter like grewell or pottage, called by the Gréeks Athera. Steotema is so called, by reason in it is contained a humor like grease, called by the Gréeks Stear. Melliseris is so called, because in it is contained a matter both in colour and consistance like unto hony, called by the Gréeks Meli, and is the hardest of them thrée to heal. As for Brencoceli, Ganglion, Testudo, and the residue, I shall speak hereafter in the particular tumors. Those tumors doe happen most commonly in membrainous places, and where there is scarsity of flesh, as in the joynts, hands, head, and divers parts of the face.

Steotema.

Melleseris.

Scituation.

Avicen 25.

Cause. Primitive.

The cause is primitive, antecedent, and conjunct. The primitive or first motive, is strokes, falls, violent forces, immoderate eating and drinking. The cause antecedent, is aboundance of humors, chiefly of the phlegmatick naturall, ingendered chiefly by evil dyet. The conjunct cause, is the divers kinds of matter contained in the part.

Cause Antecedent. Conjunct.

Signes.

The signes, they appear by little and little without either dolour or inflamation preceding; nevertheless, by reason of the diversity of the substances contained in them, they have divers signes.

The form of *Atheorema.*

The Atheorema is long in figure, and in pressing on it with the finger, it goeth in slowly, & returneth not sodainly, it

it is soft without dolour. The Colour is (of the skim) naturall, in it is found sometime with the matter, hair, bones, and such like. Colour. Matter.

The signes of Steotema is hardnesse, and if it goe in, in pressing on it, it returneth not easily: it is large at the root, in the which is contained, with the matter accustomed, bones, cotton, and such like. Of the which I did finde great quantitie in the knée of an Nunn, whom I did cure at Paris. It differeth from Atheorema both in figure, and substance, the figure being more round, and the substance more thinn. The form of *Steotema*. Matter.

The signes of Mellesteris is great softnesse, in touching, subtill and and clear: in pressing on it, it goeth in easily, and likewise doth return, it is round in figure, in it is contained besides the matter accustomed, a gravelly hard matter. The form of *Mellesteris*. Matter.

These tumors for the most part are little at the beginning, but by processe of time growéth very great, some very hard, and in some of them is containes a very strange matter, like as hair, bones, cotten, gravell, sometimes little animals like Bées, the which be all inclosed in a bagg or chest, as hath bèen sayd.

In the Cure of those, there is one simple intention to be done, to wit, evacuation of the matter contained in the place, which is done either by Launcet, Cauter potentiall, or cautick stone, not evacuating all the matter at one time: the overture must be proportionable to the tumor, which should be observed in opening of all tumors: Those tumors are sometime inserted with veines, arteries, nerves, & tendons, for the which great dexterity would be used in the operation, specially in taking away of the bagg wherein the matter is contained, that you offend not the former parts: For oftentimes there commeth great flux of blood, as I have sometime seen, chiefly in the temples. Cure. Great dexterity in the operation of them.

The tumor being opened, and the membrain discovered, which will appear white, you must seperate the same gently from the flesh, either with your spyle or other fit instrument proper to pull it out, with that which in it is contai- *Celsus lib. 5 ca. 28.*

ned

ned, and if there remain any portion thereof, you shall use such medicaments for the cleansing of it, as you have heard in other tumors: the matter being evacated and the membrain remaining wherein it was inclosed, the same must bee wholy consumed, and wholy cleansed away, otherwise it will grow again as before: We use to consume that membraine with powder of Mercury, Egyptiack, and such like, alwaies with discretion for feare of inflamation, thereafter incarnate and close the wound, as in others you have heard; some doe use resolatives in those tumors, which are both tedious and uncertaine, There are certaine other tumors phlegmatickes, like as Talpa, Napta, or Natha, Testudo, Gangleon, Nodus & Lupea, which tumors doe all depend on the former, yet little mention hath beene made of them by our ancients. Those tumors do not much differ from the former, neither in the causes nor signes: they doe occupy for the most part the dry parts, as the other which are empty of flesh, like as the head, face, joynts, hands and feete, as sayeth Avicen. The cure of such are little different from the former except that some of them be oftner cured by resolution, as you shall heare in the booke of Tumors in particular, speaking of those Tumors.

The membrain must be consumed, and how.

Paulus lib. 4. Ætius 15.

Chapter XV.

¶ Of the Tumors engendered of the melancholick humor, called by the Latines *Atrabilis*, or *Nigra cholera*, and first *Schirre*.

Seeing I have sufficiently spoken of the tumors ingendered of the sanguine, cholerick, and pituitous humors: Now it resteth to speak of those which proceed of melancholy,

lie, called tumors schirrous, for the Greeke word Schir doth signifie hardnesse. Schir is a hard tumor with little dolour or feeling: of the which there are two kinds, the one is called the true exquisite Schir, and the other the false. The true and exquisite is a hard tumor without feeling, procreate of a naturall melancholick humor, which is in the dreggs or grounds of the blood: Or it is a slimie sharp superfluitie, black coloured: sowre tasted. The false or illegitimate Schir doth proceed of an unnaturall melancholie humor, which is ingendered of the most grosse part of the chile, as you have heard, the false is altogether without feeling, or hardly may be perceived. There is another sort of Schir, ingendred of a phlegmatick, thick, tough matter, and is composed of an humor thick and cold. The Cause is a cold drie humor either of matter melancholique, phlegmatick, or both: for first, when the blood is made in the liver, there is ingendered in it a melancholique humor, which is like unto the lye or dregs of wine, the which afterwards is drawen to the milt for the nouriture thereof: it is engendered, especially by the usage of such meats as are apt for the making of the same, and the milt being weak to draw it, it goeth unto the vaines and there is mingled with the vaines, which by their virtue expultrix doth expell the same by the Hemorrhoides, monthly courses, or varices, and sometime it doth disperse through the skinn, and oftentimes doth breed the Morphea or Leprosie. Sometime it is cast in the most weak parts of the body, and according to the place & quality of the humor, breedeth either Schir or Cancer. If it be cast in any drie part, as ligaments, tendons, or ends of the muscles, on the milt, kidnies, liver, or matrice, it causeth Schir. If it be cast on the soft and glandulous parts, as the paps, emunctoires of the noble parts, face, or privy parts, it maketh Cancer. It may also proceed by the sadnes, suppression of the Hemorrhoides and monethly courses: also by too much applying of cold medicines or tumors, as on Erysipelas or Flegmon, by that means the most subtill doth resolve, and the rest doe become

Definition. Gal. 2 ad glau. cap 5.

Difference.

Gal. 2. ad glau. cap. 9.

Cause. Gal. 14 meth. cap 3.

Gal 5 sim. ca 8

Gal li 3. meth. cap. 16.

Pau. li. 1. ca. 32.

Signes.

hard. The Signes are these, the tumor is hard and groweth slowly, & of colour livide when it commeth of melancholy, but when of the phlegmatick humor it is white; and being mixed of both humors together, it is of a livide and white colour; insensible, because of the humor which is thick & drie, closed the conduits of the nerves, so that the animall spirit is in such sort inclosed, that the part hath no feeling. Those which have no feeling are altogether incurable, but such as have any feeling, & being taken in the beginning, in some sort may be helped, those which come to suppuration degenereth easily into Schir.

It closeth the conduits of the nerves *Roland. lib 1*

Cure.

The Cure consisteth in three things; first, in dyet tending to heat and humidities, ever abstaining from anger, sadnesse, fear and venerian exercise: The second point doth consist in evacuating the matter antecedent, by purgations, bleeding, provocation of the moneths, and Hemorrhoides: the third point, is to evacuate that which is cõtained in the place, which must be done by things remollients and resolvents, like as Gows grease, Hens, Cockes: Also Gumm *armoniacke*, *Stirax*, *Galbanum*, roots of Althea, Lillies, Camomile, with oyl of Camomile and Lillies; of those you may make lineaments and cataplasmes: also the emplaster of *Diachilon magnum*, *album*, *de vigo*, with double Mercurie. Galen doth much commend Goates dirt to dicusse tumors schirrous. Sometime it happeneth in the tendons, and then we use persumes thus made. Take the stone called Pyritis, or any other stone being red hot, and quench it in strong vinegar or aquavite, thereafter receive the smoke on the sore part, then apply remolliant remedies: sometime after the perfume, the gumm *armoniacke* dissolved in vinegar, is good being used with good discretion. Those tumors if they augment much with vehement dolour, as often happeneth, I use to apply a cataplasme of Rycs sodden in milk, with floure of Beans or Barly, and a little Harts grease, by the usage whereof I have found great help. If this tumor tend to suppuration, you must use no hot remedies to move it much

Gal 2. ad glau

Gal Cap. citat.

Gal li. tumor contra natu. cap. 6.

much, by reason it ingendreth easily into Cancer, for remedie whereof have recourse to the next chap. In some parts it may be cut, providing that all be cut & nothing left adherent to the whole parts, neither any portion of the root. For the great flux of blood which sometime happeneth, you must either knit the vaines or stay it by actuall Cauters; if it doe not penitrate to the internall parts: but if it doth penitrate it is dangerous, as saith Hippocrates; for the which he forbidden to seek the exquisite cure of the hidden Cancer.

Gal lib. 2. ad glauc.

Hip 6 aph. cap. 38.

CHAPTER XVI.

¶ Of *Cancer*, which the Greekes called *Carsinoma*.

ALthough that Cancer bee comprehended under the schirrous humors, yet there is great difference: for Cancer is a hard tumor, round, unequall, with dolour punction and pulsation: it groweth sooner than Schir, and hath great vaines about it, tumified and swelled, full of melancholick blood, and doth resist being prest upon. It is sometime taken for the sore of a beast, and is called Cancer, because it sticketh fast to the part as doth the Crabb-fish to that which it taketh hold on as also the vaines which are about are like unto Crabs-feet. It is of colour livide or black, hard, and rough, eating, gnawing, and going, like unto the Crabb-fish. There are two kinds of it, the ulcerate and unulcerate. The unulcerate, is called the hidden Cancer. The ulcerate, is immobill, hot by accident, through the acrimonie of terrestrious humor.

Pa li 4. cap. 24. Definition.

Celsli 5 ca 28.

Ætius li. 16. cap. 44. Difference.

The Cause of it is a dry melancholick humor, not only in the part as Schir, but also in the vaines about it, the which in time becommeth sharp and maligne, and so becommeth ulcerate:

Cause.

Gal. 2 ad glau

Paul. 3 & loco citato.

ulcerate: also evill dyet, and using of things which bréed thick corrupt blood, with such other causes, as you have heard in the chap. precedent. Also the debility of the nuit and parts which it doth possesse, being destitute for the most part of naturall heat, and cold of themselves, as in the paps and other glandulous parts, as under the armes, in the nose, eares, roof of the mouth, conduits of women, and fundament, feet and hands.

Signes.

Gal tumor. contra natu.

The Signes are dolour, unction, pulsation, chiefly in the night, betwixt nine and four in the morning: in which time I have séen the sick so grievously tormented with such intollerable paine that it was hard to be endured. The sore is loathsome to be looked on, pale, sandy or ashie coloured, evill savoured, by reason of the humor which is most filthy, sordide, and stinking. It seemeth soft to look unto, but in touching of it, it is hard, unequall, and cavernous, or hollow: the lippes and borders are tumified and turned over, ever avoyding a virulent matter, like unto the thinn dreggs of Claret Wine.

The sore is evill savoured.

Judgements.

Gal lib 3. meth. cap. 16.

The Judgements, those in the stomack, paps, head, shoulders, neck, and under the armes, be all incurable; by reason, those parts may not be cut for the great flux of blood that may easily ensue of the great vaines and arteries. Of those, some are little ulcered, others much; some recent, and some inveterate; in divers parts, some are more malignant than others, and for the most part are all incurable. It hath divers denominations according to the parts it doth occupy. If it happen in the face, it is called by Vallesius, *Erysipelas in facie* or *noli me tangere*. If in the legs or thighs, it is called Lupus: and if in any other part it is called Cancer.

It hath divers denominations.

Cure.

The Cure shall first be in purging of the humor, rectifying, and drawing of blood, provoking of the Hemorrhoides and monethly courses, if age permit, as also by staying the melancholick humor from falling or setling on the part, using moderate exercise, specially before meat, sleep only seven or eight houres, ever holding the belly lose, with using

of

of good dyet, which must be cold and humid, like as broth of cooling and losing hearbs. Abstaine from long fasting, and all things which ingender the melancholick humor, as is amply set down by Galen: and all such things as doe heat the blood, like as salt flesh, old Hares, Venison, Harts, Goates, Vinegar, spices, cheese, mustard, fish, and sundry others of like quality; from great travaile, sadnesse, anger, melancholie, using only one kinde of meat, rysing alwayes from the table with appetite to eat more, use ever such meats as breedeth good nourishment and blood, like as Mutton, Veal, Capons, and other sort of fowles, except water fowles, drink Tysan, Whey, a little Ale or white Wine, that is old, mixed with Teriack and Mitridack: also decoction of Schine is good. As for topicall remedies, and if it be in fit places, some do counsaile to cut it in such sort that there remain no root nor portion thereof: if so be, it must be taken in time before the veins bee filled with that humor, otherwise it will bee residue, as I have often remarked, for the which I will give you two examples. In Paris a Gentlewoman named Madame Butrow in the year of our Lord God 1591. who had a Canker in her thomb, for the which I made amputation in presence of Master Marescot and Martin, Doctors of Physick, with Leifort, and Peter, Doctors of Chyrurgery, I stayed the flux of blood and cured the wound soon thereafter, which being closed, within 8. weeks after it brake out in the ply of her arme, and under her orter, with such malignity and intollerable pain, that notwithstanding all remedies as well generals as particulars she dyed within ten weeks after. In like manner I had a Gentleman in Glascoe under my Cure, in the year of God 1603. called James Campbell, who had a Canker in the ply of his arme, which was caused partly by the application of cold venomous remedies, by the which it did grow in short space to such bignes and corosion, through the acrimonie of that humor, that it did both corrode vaines and arteries, with great flure of blood and other dangerous simptomes, for the which

Ætius 16. & 45.

Gal lib. 3. loc. affect.

Adamus Lonicer. de con. vale.

Gal 2. ad glau. cap. 11.

Historie of *Carsinomatous* tumors.

Historie of *Carsinomatous* tumors.

I did cut off the arme within three inches to the head of the Brachium, and did cure the wound perfectly. But in short time after, it brake out under his arme and in his pap with such intollerable pain, that hee lived scarce three moneths after. These two examples I thought good to set down, that the yong Chyrurgion be not over-rash in promising, before he try the nature of the disease, and the part where it is: as likewise, that all men should eschew the hands of abusers, which most commonly in all diseases doe apply cold venomous things, as was done to this Gentleman: in such cases I have ever used medicaments, refrigeratives, desiccatives, & pacifiers of pain, with such other things, as have the virtue to let the augmenting of the disease, such as the juice of Morall, Iusqueam, Plantane, Lettice, Endiue, Sorrell, Centory, Shepheards purse, wet a cloth in those juices & lay on the sore. Asses milk may be likewise used, as also to be drunk by the sick. I have oftentimes used in this, only the urine of a yong maid-child of 5 or 6 years old, wet a cloth ther in and apply warm to the sore as the former: by this remedy I preserved a Nun, who had a Canker in her pap the space of 10. years. Petrus Hispanus doth counsaile in Cankers of the paps, to apply Goats dung with hony, which he alledged doth kill the Canker: also mans excrements bunt and put in powder, and applyed, doth the like. Divers other remedies may be used for this purpose made of oyl of Roses, Vergie, Serule, burnt lead, Litharge, Pompholigos, Tuthia, Thuris, Mastick, Camphier, emplaster Diapalma or Diapompholigos, certain of those mixed together, beaten in a morter of lead, and apply to the sore, doth preserve the same in one estate, also correcteth the acrimony of the humor, the sore were so much the better, if it were sometime washed with water of *Carduus Benedictus*. If you find that those remedies let not the augmenting of it, you must have recourse to the Chap. of Cankers and Ulcers, in the Book of Ulcers; and so I end this Book of Tumors in generall

Pa. li 4 cap. 26

Milk of an Asse applyed to the sore.

Urine of a maid.

Goats dung killed the Canker.

Water of *Carduus Benedictus*

The

The fift Book;

Of Tumors in particular.

Which containeth LXXV. *Chapuers, whose Contents be these ; By* PETER LOVVE *Scottishman.*

CHAP.

1 Of the excellency of the head.
2 Of the falling of the hair off the head.
3 Of the taking away of hair of any part.
4 Of Lyce, Morpions, and Nyts.
5 Of *Psydracia*, and *Exenthemata*.
6 Of *Tinea* or *Achoris*.
7 Of *Hydrocephale*, and *Physocephale*.
8 Of *Nodus*, and *Gangleon*.
9 Of the excellency of the Eye.
10 Of the composition of the Eye.
11 Of certain maladies of the Eye.
12 Of a regiment for the sight.
13 Of *Lippitudo*, and *Ophtalmia*.
14 Of the weeping Eye.
15 Of the Fistule in the corner of the Eye.
16 Of *Hordelion* or *Pisthia*.
17 Of the haires of the Eye-brees.
18 Of *Midriacis*, or *Dilatatio pupillæ*.
19 Of *Suffusio*, or *Cataracta*.
20 Of the cure of *Cataracta*.
21 Of the dolour in the Eares.
22 Of rumors in the Eares.
23 Of Ulcers in the Eares.

24 Of the tumors behind the Eares called *Parotides.*
25 Of the tumors in the nose called *Sarcoma, Polypus,* and
26 Of the flux of blood at the Nose. (*Osena.*
27 Of the lips and their diseases.
28 Of the Hear-shaw or cloven lipp.
29 Of the mouth, tooth, and toothache.
30 Of the corrupt and hollow tooth.
31 To help the mouldy black evill savoured tooth.
32 Of the superfluous flesh at the root of the teeth.
33 Of the pustules and ulcers in the mouth.
34 Of the diseases in the tongue.
35 Of the tumor under the tongue called *Ranunculos.*
36 Of the relaxation of the *Uvia.*
37 Of the tumor of the *Amigdales.*
38 Of the tumor in the throat called *Scinans.*
39 Of the tumor called *Scrophule* or *Struma.*
40 Of the tumor in the crage called *Bruncocele.*
41 Of the tumor called *Aneurisma.*
42 Of the tumor in the paps.
43 Of the tumor called *Plurisie.*
44 Of the tumor in the navell called *Exomphalon.*
45 Of the tumor in the belly called *Hydropsie.*
46 Of the fistule in the fundament.
47 Of *Thymus* in the fundament.
48 Of *Condoloma* in the fundament.
49 Of the tumor called *Hemorrhoides.*
50 Of the falling of the intestin called *Exitus longano.*
51 Of the Periton, Piplon, and intestines.
52 Of the spermatick vessels.
53 Of the tumor in the Cods.
54 Of *Hernies* in generall.
55 Of the tumor unguinall called *Bubonocele.*
56 Of the Hernie intestinall.
57 Of the hernie or ruptour called *Epiplocele.*
58 Of the watry hernie called *Hernia aquosa.*
59 Of the windy hernie called *Physocele.*
60 Of the hernie called *Hernia carnosa.*
61 Of the hernie called *Hernia varicosa.*

CHAP.
62 Of the hernia humerall.
63 Of the bladder and diseases which happen in it.
64 Of the wand or yard and certain diseases incident to it.
65 Of certain other diseases of the yard.
66 Of the tumor in the lisk called *Bubo.*
67 Of the tumor or pain in the hipp called *Siatica.*
68 Of the tumor or pain in the knees.
69 Of the tumor in the leggs called *Varices.*
70 Of the pain in the legs called *Dracunculus.*
71 Of the tumor called *Elephantiasis particularis.*
72 Of the tumor in the fingers called *Pannaris.*
73 Of warts in the hands.
74 Of the mulls in the heeles.
75 Of the cornes in the feet, or toes.

CHAPTER I.

¶ Of the excellency of the head.

HAving briefly shewed in the former books of those tumors which generally did proceed of the four humors, with their definition, Cause, Signes, and Cure: so now I am mindfull to entreat more particularly of tumors, and certain other affections pertaining to Chyrurgery, which happeneth in divers parts of the body, beginning first at the head, and some severall parts thereof in particular, so discending to the fingers and toes. The head is esteemed by the consent of the most learned, to have the first place in respect of the worthinesse thereof: for amongst all the members of man, saith the Philosopher, the head hath the first & principall place, for the high and mighty things in it contained.

The head hath the first place, and why.

Isiodorus

Isidorus saith, it is called *Caput, a capere*, for all the members do take and borrow from it, being the well-spring or seat of wit, memory, the five externall sences, to wit, Seeing, Hearing, Tasting, Feelling, & Smelling. A tower in it is contained, the life or soule of man, which is thought by Herophilus the Philosopher, to be placed in the lower part of the braines: and Zenocrates in the height of the head. Erasistratus in the two membraines, which the Arabians call Meres Strato betwixt the eyes. Herodotus in the eares. Blemor the Arabike, and Cyreneus the mediciner, in the eyes, by reason that all the passions of the life, is there remarked, as in a mirrour. Some of the Philosophers be of other opinions, like as Aristotle that great interpretor of nature, who thought the heart to be the seat of life, or soul, because it is the seat and well-spring of all the naturall heat, which first liveth, and last dyeth, and is the only storehouse of the vitall spirits, beginner of the vaines and arteries, cheif authour of respiration, & divers more proprieties alleadged by the authour. Yet because that divers Philosophers are of divers opinions concerning this matter, I will not here examine them all particularly, but only shall be contented with the opinion of the most learned, who affirm this *Animus* to have the seat only in the head and braines, in which parts doth shine the most noble effects: all the organs of moving, feeling, memory, imagination, discretion, reason, and divers more are found there: so that we may justly think, like as the heavens are the first principall, whereupon depend all the generations, & alterations elementaries: even so in the head is the first principall of all the actions & mottons of our body. Yet notwithstanding, of the worthines thereof and all those benefits in it contained, it is subject to many grievous diseases, but for the present I am not minded to make an exact description of them all, the enterpise were too great, for at least it behoved me to write 200. severall chap. for in it is contained so many severall maladies. I will only for the present, set down briefly certain of those which are most common

Herophilus.

Zenocrates.
Erasistratus.
Meres Strato.
Herodotus.
Blemor.
Cyreneus.

Aristotle.

Hermes.

In the head is the first principall of all action.

In it is 200. maladies.

common in their Countries, and that with their severall remedies, by severall Chapters; beginning first at the hair of the head.

CHAPTER II.

¶ Of the falling of the hair, called by the Latines *Alopetia.*

ALopetia, is a falling of the hair of the head, chinn, and browes, leaving the parts void, sometime with ulceration: to this disease the For is much subject called Alopex, for the which it taketh the name Alopetia. The Cause is divers, as in the defect of the aliment, humor, or vapour fuliginous, whereof the hair is engendered and entertained as happeneth to old people: also by some corruption which doth cut away the vapours, or aliment whereof the hair should be nourished and ingendered, like as happeneth in rotten fevers, French-pox, and leprosie. Also by corruption of the whole humors of the body, or by the vice of the pores, being either closed too much, or over lose. Also by the vestiges of old ulcers and siccatrices of wounds, as saith Avicen: also by burning and applying of hot drying salves.

Definition.

Cause.

Cels. lib. 6. ca. 1.

Gal. 14 thera.

The Signs, are when we see the haires fall without cause manifest, and little ulcers at the root thereof, without scales or other superfluitie, it is called Alopetia, and is of divers colours according to the humors infected: as if it proceed of the blood, the colour will be red: if of choller, the colour will be yellow: if of phlegmon, white: if of melancholie, black or leady coloured.

Signes.

The colour thereof according to the humor.

Gord. part. 11.

The Judgements, such as are naturally bald, old people, Eunuchs, and such as lack beards, thisicks, and parts where siccatrices of wounds and ulcers have been, and places being

Judgements.

ing rough, rugged, and groweth not redd, bee all incurable. But if the falling of the hair come accidently by the evill disposition of the part or otherwise, and not inveterated but recent, it may be helped: but if it hath been of long continuance, either it is impossible or very difficile. The Cure consisteth in generall & particular remedies, as purgations according to the humor which offends, having a specialll regard of the head and bleeding if cause require, as at length is set down by the learned Gordionus. The particular remedies shall be first to raise the head, chiefly the empty places, and rub much with rough clothes, using such things as hath the virtue to draw virtue to the part; next make a laviment of the leaves of the vine, and oak tree, doves dunge burnt, woodbine, *Capilli veneris*, Tollwort, and Mercurie, seeth all in water, and make a decoction to wash the head often withall: next ye shall use lineaments, as counsaileth Galen of oyl of *Lauren, Pitchull, Walnuts, Aspicke* and *Abrotanum*, also Boars grease, Fores dunge, or vipers, Gerardus for this purpose counsaileth, to take Barley bread and salt burnt together, and mixed with Boars grease or hony, and annoint the empti part: or this, approved by *Johannes Baptista porta*, take Bees and burn with Hyse dirk and mixe with Rose oyl, and anoynt the part, which will cause the hair to grow: or this set down by Nostredamus, take Bees and dry them in an oven or otherwise, till you may reduce them to powder, then mix that powder with hony or Swans blood and annoynt the part. Discorides counsaileth for this purpose to take Euphorb and mixe with oyl. Johanne Lebot counsaileth to distill the excrements of a red haired man and annoynt the part, for this purpose the distilled water of hony is very good: the composition whereof ye will find in my book of the Spanish and French sicknes: but forasmuch that oftentimes the hair beigg growen on empty parts doth become white. For the help whereof Nostredamus approveth greatly divers times to anoint the void parts with the milke of a bitch which impasseth it to grow white.

Cure.

Gal. 19. thera.

Gord part 11.

Galen.

Gerardus.

Baptista porta.

Nostredamus.

Dioscorides.

Nostredamus.

CHAP-

CHAPTER III.

¶ To take away hair in any part, and impasse the growing of the same again.

LIke as want of hair in places where it ought to grow, as well for health as ornament of our bodies it is also unseemly and evill favoured that hair should grow in places unaccustomed, it maketh great deformitie, and is sometimes painfull, specially in the inner side of the eye-lids. To take away this deformitie, there is sundry remedies set down by *Galen* and divers others, of the which some are dangerous, like as Arsenick, Orpymunth, unslaked Lyme, Gravelling, Vitreoll, Coprice, burnt brasse, and divers others of such nature they not being applyed in little quantity, with other dregs to corrupt their virulency: as for example, I have used this, take three whites of eggs, unquenched lyme 3. unc. Orpymunth half an unc. common licsive a little, mixe all together, and let it be of consistence of a soft unguent, annoynt the part, and let it remain half an hour, or in the tender parts a quarter of an hour, then wash it away with hot water: if the hair fall not away at the first, annoynt it a little again and wash it as before, then to refresh the part annoynt it with oyl of Roses or Walnuts, and other remedies which I learned of a Country-man, which I have often used, take Cats dirt well dryed and put in powder, mixed with strong Vinegar, and rub the part with it, and the hair will shortly fall away. Dioscorides counsaileth, first to draw the hair by the root, then take the juice of fumentary, and mixe with a little gumm of Arabick and apply on the part: it doth also impasse the growing of the hair, or this remedy, take half a pound of unquenched lyme, stipped in common licsive, or mans urine, adding thereto half an unc. of Orpymunth, seeth all to a thinn consistance like unguent: or this, set

Unseemly hair to grow where it should not.

Galen.

Rando tract. de fucis.

Alexis Pedemantanus.

Gord pa. t. 11. set down by Gordonius, take unslaked Lyme and Dryymunth, seeth them in water till such time that by putting a Goose quill in it, the feathers fall away: if in seething, it groweth over-thick, add to it a little urine, and annoynt the part, thereafter wash the place with warm water, then annoynt it with oyl of Walnuts and Roses.

Chapter IIII.

¶ Of Lice, Morpions, and Nyts, which often doe use the skin and roots of the hair.

Definition. These three sorts of vermin vegetable called Ptheriasis, or by the Latines *Pediculi*, are ingendered in any part of the body, chiefly in the hot and humide, as the head, privy parts, and the armes, by reason of the great quantity of hair and excrements in those parts. The first of these kindes is called by the generall name *Pediculi*, or Lyce, because they have many feet, are greater than the others and groweth chiefly in the head, from the which they disperse through the whole body. The Morpions, called by the Latines *Pessolatæ*, or *Pedicolatæ*, are found chiefly about the privy parts, and under the armes are not to be seen, but where there is hair: they wagg not nor travaile as the Lyce, but doe stick fast to the skinn, and are taken away with difficultie: they corrode the skin, and is called by Aristotle *Ferum-animall*. The Nyts, called by the Latines *Lendes*, are least of all, and are either found in the head at the roots of the hair, or under the skinn, provoking great itching in the parts. Those three sorts of vermin, doe greatly molest the body, but chiefly the Lyce. Of them ensue a grievous disease, called by the Latines *Morbus pedicularis*, they issue out at all parts of the body, and ought not to be neglected, by reason that both holy and prophane

The first kind Lyce, and why so called.

The second kinde Morpions.

The third kinde Nyts, & where they remain.

prophane Histories maketh mention, that divers being infected therewith, end their dayes miserablie: Like as Herod King of Judea, after he had reigned 37. years, dyed miserablie of vermin. Likewise Sylla Dictatour of Rome, a great Captain (in Asia) for the Romaines: he was a man very insatiable, and dyed likewise of vermine. Pherisides the famous Philosopher and writer of Tragedies, after he had long lived, ended his dayes of the lousie sicknesse: there be sundry others, which were too long to repeat.

Herod.

Sylla Dictatour.

Pherisides.

The Cause intern, of those three sorts of vermin, is great corruption of the grosse humors, which nature cannot altogether digest, but sends to the pores and meats of the true skinn, and there remaineth untill they take life. Of their generation & life taking, I leave it to the learned Physitians. They may be ingendered of any of the four humors, as saith Gordonius, and are nourished of the juice of the living flesh: For the which Aristole doth say, that this *Animall* hath the residence in living creatures, and leaveth them so soon as they be dead and distitute of life. They are as I have said for the most part ingendered of a corrupt humor, as we doe perceive in the lousie sicknesse: for then they come forth at the pores of the skinn in such frequency and greatnes, that the pores are open; after the same form we see the out-comming of drops of sweat. The Nyts are ingendered of the eggs of the Lyce, as sayth Aristotle. The Morpions are ingendered of a more dry hard humor, half burnt; so they are more flat and not so tumified as the Lyce.

Cause.

Gord. part. 11.

Arist. 5. de hist. animali.

The Nyts are ingendered of the eggs of Lyce.

There is yet a fourth kind called Chyrons, they likewise take life and corrodes betwixt the flesh and the skinn, and are ingendered of a more drie matter than the other, and are chiefly found in the hands of idle people: the cause externall of those animons, is evill regiment of eating and drinking, of such as ingendereth rotten humors, surfeiting of fruits, figges, nastinesse, idlenesse, and seldome change of cloathes, as I have often times remarked in Armies & Camps, men of good temperature and dyet vexed with vermin, negligence in

The fourth kinde is called *Chyrons.*

in combing of the head is a great cause. Aristotle sayth, that lyce grow in great quantities, by the much usage of waters: for it ingendereth crudities, renders the braines and other parts more humid: yong children are much subject, by reason they have the braines humid. Aristotle sayth, that women are more subject than men, and children more than those of elder age, and those children who hath their hair full of lyce, are lesse subject to the dolour of the head or epilepsie.

Arist. 5. histo. animali. 31.

Signes. Judgements.

The Signes are evident to sight in these parts. The prognostickes, if they doe multiply in great numbers by an internall cause; it signifieth either Morphæa or leprosie to ensue, by reason the naturall heat is diminished, and cannot digest that evill matter as it ought.

Gord. part. 11.

Cure.

Ths Cure is, first to evacuate the body of blood pituit, and other corrupt humors, whereof the vermin is ingendered, which shall be done with pills of *Agaricke, Hierapicra Galeni, Diachath licon, Diaphenicon*; use decoctions inwardly of Garlick and *Calaminth* as counsaileth Avicen. Secondly, in keeping of good regiment of life, abstaining from such things as ingendereth filthy corrupt humors: use things of good digestion, and that ingendereth good juice, & change often clean cloaths. Thirdly, use the things that have the virtue to dry and cleanse, as baths made of decoction of *Calaminth, Cyprus, Herba pedicularis*, called *Staphysagria alume* and salt, wash the whole body and head therewith, or the head only: if it be alone infected, then use this unguent; take three unc. of oyl, Wax 5. unc. *Hidrargyron* well extinguished 1. unc. oyl of bitter almonds half an unc. mixe all in a morter and annoynt the head and other parts, save the suters of the head, or this *Rec. Sem. stafisagriæ unc 2. hellobori albi. unc. 1. salis 2. dragm. argenti vivi unc. 2. axungiæ porcinæ. lib. 1. olei laurini unc. 9. saponis veneti lib. semiss. fiat unguentum*, and annoynt the parts: also the hearb *Stafisagria* put in powder and strew the head therewith, or wash it with the simple decoction thereof: I find it one of the best and easiest remedies for this purpose. Paulus doth counsaile onely

Change often clean clothes.

Pa. lib 4 cap. 3.

Arnold lib 1. cap. 19.

Gord. part. 11.

Paul. lib. 3.

only to annoynt the part with oyle and stronger vinegar. I use with it a little Aloes and finde it good. Gordonius saith that the powder of the herb *Staphisagria*, destroyeth not only vermine on men, but given to fowles, slayeth the vermine in them. Lebot counsalleth this, take two ounces of the seede of *Staphisagria*, *Orpimonnth* halfe an ounce, oyle of bitter Almonds 4 ounces vinegar and ware as much as wil make it a good consistant of unguent: or this, which may be used for young children. take Laurell oyle, and that of Rapherts 2 ounces of each, Pepper and Saffron in powder, of each one a scruple, make an unguent thereof. Here you must remember that those medicaments which have the virtue against Lyce; it is also good for Cartaines and Nyts, yet for the Cartaines I have often used this, take halfe an ounce of butter well washed in Rose or Calaminth water, quicksilver well extinguished 2 drams, Aloes 1 dram, make an unguent and anoynt the part.

Gordonius.

Lebot. lib 11. of ornament.

The Chyrons which come in the hands or other parts, are cured by washing of those parts with salt water, or water wherein salt fish hath been sodden, or rub them with the juce of Hedder or Henbane, or strong vinegar mixed with a little Aloes. If you would know more diversity of remedies for the vermine, take advice with Viccarus, Petrus Hispanus, Vigo, Alexis and Lebot. There is of those Chyrons or little Lyce found in the membraine conjunctive or white of the eye, which maketh great paine and itching, for the which you must very cunningly with a stable hand and a silver needle, such as we abate the cataract with, pick them out one by one, then wash the eye with Rose and Eufrage water.

Chyrons in the membrain of the eye.

CHAETER V.

¶ Of the disease of the head called *Psydracia* and *Exanthemata*.

Definition. *Adamus Lonicerius de consvaletud.*

THose little pustules or Aposthumes which possesse the outward skinn of the head and roots of the hair, are like unto the biting of fleas, or as if one were burnt with hot water, and are of divers colours; sometime white, otherwhiles red and flat, otherwhiles high swelled, pointed, and dolorous, avoyding a corrupt matter, especially being prest upon, they are sometimes ulcerated.

Cause.

The Cause procéedeth of over-great aboundance of grosse, corrupt, filthie, and vicious humors of the body, the which being converted in vapours, is sent to the head, the which nature expelleth to the externall parts thereof.

Signes.

The Signes are evident, & may easily be discerned from those which doe procéed of a maligne infectious humor, as those of the Pox, which are evill & more in number, redder and watry, more broad, avoyding a matter virulent, of the which I shall speak in their own places.

Cure.

The Cure consisteth in generall and particular remedies, as purgations, pilloties to purg the head, made of Alloes, Colocynth, and such like. Use fumes, to provoke the head to sweat: The particular remedies are of divers things, and diversly composed, according to the nature of the humor and pustules, which is sometime hot, otherwhiles cold. The simples whereof we make our compounds for these pustules, be these. Take the leaves of Nuts and Cyprus, Lytharge, Ceruse, Acatia, Galla, Sulphure, Myraboll, Nutmegs, Nitrum, oyl of Rose, Vinegar, Water, Wine, Wax, juyce of Mallowes, Barley flower, Pimpernell little roots. Paulus counsaileth for these pustules to take Ruthe, Hony, and Allom, bray all well together and annoynt the part being first

Guliel. de salit.

Pa li. 3. cap. 3.

first rased. For the same purpose, take Lytharge of both sorts, Ceruse, of each halfe an ounce, quicke brimstone two drammes, beat all well and mix with a little swines grease, and make a lineament. Viaticus approveth much, bitter Almonds well washed with warme water, beat them while they come to the consistence of an unguent, and annoynt the part; bitter Almonds also bruised with little roots and incense, and boyled in vinegar, water, or wine, and apply on the sores. If the pustules or little ulcers agree not with those remedies, but be rebellious and uneasie to be cured, in that case we touch them with the water of Sublemy. If they be not much inflamed, you may touch them softly with water of separation used by the Gold-smiths. If you think these waters over-strong, mix with them a little Plantin or Rose water: or this. Take 4 ounces of Rose water, 2 ounces of Aqua vite, 1 dramm of Sublime, let all seeth in a vessell of glasse till the Sublimie be consumed; and so follow out the rest of the Cure, as you have heard in Erefipelas.

Viaticus.

Touch them with water of Separation.

CHAPER VI.
Of Tinea.

TInea or Achoris is a malady of the skinn and muscles of the head accompanied with scabs, scurffes, scalles, ulcers, and falling of the haire, easie coloured, fetide, unpleasant, horrible to the sight, of the which there are five kinds, as saith Guydo: yet Galen doth only allow three kindes, and I am mindfull here to speak of two, which are most common: the one is humid and ulcerateth, the other with a drie scabb full of scalles: of these two, the one is easie to heal, and familiar to young children, possessing for the most part the head and face, the other is worse, accompanied with malignitie, insident to people of elder age.

Definition. *Haly Abbas. serm. 8. part. 1. doct. 1.* *Guydo.* *Galen.* *Paul. li. 3. ca 3.*

The cause of that which happeneth to young children, is the impuritie of maternall blood they were nourished with

Cause.

in the mothers wombe, or by the father, mother, or nurse, who had the disease for the time. The cause of those in elder age, proceed of evill regiment of life, a corrupt salt pituit or mixion of a corrupt, grosse, bilious, melancholick humor, or by haunting such as be infected, for it is contagious.

Signes. The Signes you have heard in the description, besides that sometime it is virulent, sanious, corroding the skinn full of little holes, like those which the moths make in cloth, and is called by the Latines *Ulcera capitis manamia.* Sometime it is dry, accompanied with grosse thick scabbs, by reason of the vehemency of the corruption and adustion of the humor.

Judgements. The Judgements, in young ones it is easie to heal, and such strong remedies ought not to be used as to those of elder age: this, with all other scabbs of the head and face that happeneth to young children, with that purulent rotten humor which issueth at the eares, doth deliver them from Epilepsie, and divers other great maladies, so better oftentimes to have patience and let nature work, than to be over-curious in the cure.

The Judgements of the elder people, if it be recent, it is somwhat difficile to cure, and is called *Tinea quasi tediosa & fortiter tenens*, and being inveterate it must have a long time great travile, very difficil to helpe, and almost incurable: or if it cure, it leaveth the vestige and weakeneth the part with emptinesse of haire.

Cure. The cure in young children shall be, first in prescribing a dyet to the Nurse, which may be done by the advise of the skilfull Physitian, next use this unguent, take the juice of Fumentary, with a little Centory, Scabious, Annula Campana, of each 3 ounces, Lytharge 2 ounces, mire them with 4 ounces of Swines grease, oyle of Walnuts and Ware a sufficient quantitie, and make an unguent: or this which I have often times used, take Turpentine and wash in common water, thereafter in fumentary water, fresh butter washed in rose water 2 ounces, salt halfe an ounce, two yolkes

Unguent for Tinea.

Gord part. 11.

of

of eggs, juice of Lymons and oyl of rose, of each 1. ounce, Camphier half a scrup. of those you shall make an unguent and anoynt the head. You shall finde divers other remedies for this purpose, set down in my book of the deliverance of women, and diseases incident to young children.

The cure of those in elder age & inveterate: first evacuate the humor which provoketh the disease, next raise the head, every week once wash it with a lixive made of sinders of the vine tree of Gravelen, in the which shall be sodden Cephalick hearbs, and some sope, and wash the head therewith, after the which vescicatories were good to be used. The Cure of elder people.

The common people use only for this purpose strong urine, which is not good: For as Galen saith, it is of a saltish quality; such as are skilful in this cure, do first raise the head, and pluck out the haires by the root, with a bonnet made only of pitch. Lebot counsaileth to take flower of clean rie half a pound steeped in vinegar, next take half a pound of pitch put in powder, melt all on a soaking fire, and work all together, thereof make your bonnet which not only pulls out the hair, but also the evill humor, that being done, you shall use *unguentum enulatum cum duplici mercurio*, and annoynt the head, avoyding alwayes the suters and openings of the head, for the mercurie is hurtfull for the braines. Or you may use this, approved by Ambrose Parrie; take *unguentum enulatum*, with double Mercurie, Egiptiack, of each 3. unc. Vitrioll Roman in powder, 1. dramm incorporate all together, make an unguent, and annoynt the head. Strong urine is not good. *Parœus.*

Petrus Hispanus counsaileth to raise the hair and wash the head with strong vinegar and urine, then take the root of *Enula campana*, tender branches and leaves of the figg tree, bitter Almonds, beuise all with oyl & strong vinegar, add unto it the ashes of the roots of green cole, Colwort, Lytharge, Hydrargiron, Seruse, Salt, seeth and bruise all together and apply unto the head. *Petrus Hispanus.*

Gordonius doth approve for this purpose, if it be rebellious and inveterateth, as also for all other infections of the *Gord part. 11.*

skinne, as leprosie, *malum mortuum*, *Morphæa*, and such like, this unguent, take the two Elebors, quicke brimstone, Nitriall, Allom, Nut-galles, sinders of Gravelie, of each one halfe an ounce, make all in a powder: thereafter take the juice of Borage, Scabious, Fumitarie, and Paritary, of each 3. ounces, let all seeth with the grounds of strong vinegar and old wine, on a soaking fire, till the juices be consumed, thereafter put unto the powder, with the decoction with half an ounce of liquide pitch, make all one consistence of unguent. Some use for this purpose *unguentuum marceatum*, *agrippa*, *aragon*, *de althea* adding to them the 12. part of *Hydrargirum* and anoynt the head, save only the suters. The malady called *Favous* or *Chyrion*, is little different from this either in Cause or Cure, except the holes are larger, and casteth a matter more like unto hony, for the which it taketh the name.

Powder for Tinea.

CHAPTER VII

Of *Hydrocephale*, and *Physocephale*.

Definition. *Albuc. lib. 2. cap. 1.*

HYdrocephale, is a watry serous filthy blood, or humor, which doth occupie the whole head or some part thereof, especially in yong children: and Physocephale is a windie humor, which doth the like. These tumors are either contained betwixt the pericran and skinn, betwixt the muscles, betwixt the pericran and cran, or betwixt the cranium and members, which cover the braines called *dura* and *pia mater*, but the tumor in that case is not so great.

Difference.

Cause. *Adamus Lonicerus de conf. valetud.*

The Cause is either externall, or internall. The internall, cometh from the matrice and by the mothers milke, which is too serous and watry, and such like food as breed watry humors. The externall cause cometh of cold presently, after the birth, also through the unskilfulnes of midwives, as

I have sometimes remarked, who did draw and presse the childs head so much, at the time and after the delivery, that the veins and arteries did break, not being as yet strong, so the blood did shade and spread through the rest of the head, and so degendereth into water. *Pa. li 6 cap. 3. Actius lib. 6. cap. 1.*

Signes.

The signes are great tumors, with deformity of the head, the eyes and face swelleth, as doth appear in hydropick.

Judgements.

The judgements are, such as be within the cran are incurable: those that are betwixt the cran and pericran, or between the pericran and muscles, may be cured but hardly. It groweth often times to such greatness that the child dyeth.

Cure.

As for the curation of such as are cureable, they are partly healed by dyet, and using of drying things, abstain from things humid, as you have heard in Oedema. Also by externall remedies applyed to the part, that hath any drying verture, with some friction: also to comfort the head, which shall be done by fomentations, lineaments, unguents, and such like, made of Calaminth, Drigan, Betone Cammomill, Melilot, Anthoes, and red Roses: Also you may make lerives of the ashes of the Vine tree, thereafter shave the head, and apply this emplaister following. *Rec. olibani unc. 1. sarcocolli dragm. 1. gummi arabici seminis raphani & anethi an. 1. unc. dimid. olei de spica parum, sera quantum sufficit fiat emplastrum:* Or this, take Hony half a pound, Drigan, an handfull and half, common salt half an ounce, mire all in form of a Cataplasm and apply hot to the head. Or this, which I have sometimes used; take shell Snails and bruise them shells and all, and apply them to the head in form of a plaster, so let it remain while it fall away of it selfe, for it doth mightily resolve: If by those means you profit not, the humor being in great abundance, you must make incision in divers forms, according to the part and humor therein contained, but in such sort that the humor and water flow not all at once, but by little & little, of over-great evacuation sodainly done, great accidents and sometime death ensueth, chiefly in young children: so it shall be best you make your evacua-

Emplaster for Hydrocephalo.

Make the evacuation by degrees.

evacuation by degrees, and cure the wound as you have heard in Oedema. If the cran or membraines are offended, ye must use incision and perforation of the cran, then evacuate the humor and heale the wound, as in others. In the meane while purge the Nurse, use good regiment, and such as hath the virtue to dry, purge the head and hold the belly lose. There is another kinde of this called *Macrocephale*, which is a super-naturall greatnes of the pan, flesh, and muscles, and not properly Tumor; it receiveth no curation, it is seldome seene one of this sort. I did see in Paris in the yeare of God 1583. to the greatnesse of a pot, which would conteine 12 English pints.

Macrocephale, what

CHAPTER VIII.

¶ Of the tumor called *Nodus* or *Gangleon*, which commeth in the head.

Definition. *Celf li 7. ca 6*

THose tumors which happen commonly in the head, are sometimes hard, other whiles soft, commonly round, & doe happen for the most part in dry nervous parts of the body, but chiefly on the head and joynts, hands, and feet, ridge back, wrests of the feet and hands, other joynts, and parts empty of flesh.

Cause.

The cause, are stroakes and wearinesse of the joynts, veins, and tendons, either by extention, contortion, stroake, or hurt, also by the humor which floweth to the part, and can neither digest nor turn to good substance as it ought, but regendereth in a cold grosse thick humor, amongst the substance of the febres and tendons, cheifly in the articles and such other parts, as you have heard in Acheorema: as also the Signes.

Pau. lib 4. ca. cita.

The

The Cure consisteth first in good diet, eschewing all meats which ingender grosse humors, using things of good digestion, and abstain from drinking of water, purge, and blood, haunt no humid places: as for the particular remedies, this humor is sometime inclosed in a membrain, and in that case proceed to the Cure, as you have heard in Atheorema. Sometime it is neither inclosed in a bag nor chest, and then we apply a thinn cake of lead, rubbed with quick-silver, which hath great virtue to resolve, or an emplaster resolative made of *Galbanum*, *ammoniacke*, oyl of Lilies and Bayes, Brimstone and Nitreoll *Roman calcined*. Also the emplaster of Vigo, *Diachilum magnum cum duplici mercurio* and apply it. Or this, *Rec. emplastri, oxicrocei, unc. 1. mucilaginis, altheæ, lini & Phænugræci sing. dragm. 6. Euphorb, sagap, ammoni, sing. dragm. 3. dissolvantur gummi in aceto, fiat emplastrum.* At the first it is good to rubb it with fasting spittle while it grow red: if it be mobile and small cragged, it may be knit with thread or silk somewhat fast, drawing it faster every day, so it cutteth the sooner but the better: if it be dipped in *aqua sublimata* and dryeth before the applying, so it will fall of it self.

Cure.

It is inclosed in a bagg.

Avicen.

Orib. li. 7 sim.

Rub it with fasting spittle.

The rest of the Cure is easie, by those means you may take away warts in any part: if it neither resolve nor open of it self, we open it with a launce or Cauter, produceth the fall of the Eschar, and consumeth the chest or bag with Egiptiack, powder of Mercury, and such like, cleanse the wound and ciccatrize it.

In those sorts of tumors, divers matter is oftentimes found, like as in Atheorema and Steotema: there is some of those tumors, that you would think them Carcinomators. I remember once in Paris being called with the famous and learned mediciner D. Blackwood, to the reverend Father John Beton Arch-bishop of Glasgow, who had one of those tumors on the ridge of his back about the lend or first vertebie, to the greatnes of a mans fist: it was extream hard and dolorous, and so great at the root that it could not be knit.

Doct. *Blackwood.* Arch-bishop of *Glasgow*.

I applyed all remedies to resolve and mature, but nothing availeth, so I was enforced to open it with a Cauter, where I found in it contained a matter like cut stones, green coals, but small quantitie of liquid substance. I did evacuate the humor with suppuratives and detersives, with grosse tents every day applyed twice, with this remedie, Terebinthin well washed in Aqua-vite, with a little hony of Roses mixed together: so cleansed the ulcer, consumed the bagge, corrected superfluous flesh with powder of Allom and Mercurie, and ciccatrice the wound, and so the noble man recovereth his health, to his great contentment.

Powder to correct the superfluous flesh.

There are in the head tumors of the same nature, such as *testudo* and *talpa*, which sometime are without ulcer and corruption of the bone, and in that case are cured as the former: sometime they are with corruption of the bone *cranium*, and in that case the humor must be evacuated and the exfoliation of the bone procured, as yee shall hear in the chapter of ulcers, with corruption of the bone: as for divers other diseases of the head, have your recourse to Hernius.

CHAPTER IX.

¶ Of they Eye, the proper instrument of the sight, and most noble of all the externall senses.

AMongst all the Senses, that of the sight hath been esteemed by the common consent of all the Philosophers, to be the most noble, perfect, and admirable: the excellency whereof is shewed to us many wayes, like as by the diversitie of the objects which it representes, and by the operations which are spirituall: also by the particular object which is the

the sight, the which sight causeth us to know more diversitie and difference of things, then any other sense: So Aristotle doth call it Sense, because by it all brave Sciences were invented. It is composed with such excellency & good parts, that Plautin and Synecius doe call Nature a Magician, for having put in such a little part so many good graces. Orphe calleth them the mirrour of nature. Alexander the Peripatick, calleth them the windowes of the soul, for by them is remarked all our passions, as love, envie, sadnesse, ear, hardnesse, pittie, revenge, despaire, hope, health, sicknesse, life and death. Blemor and Cyren Mediciners, were of opinion that the soul was placed in the eye, for in them thou seest as in a mirrour all that is placed and hid within them, and is given to guide and draw us to the knowledge of God in beholding his marvailous workes, as also to be guiders to the whole body, and to contemplate high things, and are admonished of the place to which they ought to look, according to that which David saith, I lift mine eyes to thee that dwellest in the Heavens. Vigo writeth, that the eyes of a dead Virgin hath great virtue against enchantments and charmes. Hippocrates commandeth us, when we first visite the sicke, to cast our eye on the eye of the sick, where shall be seene the strength or weaknesse of the animall faculties: if the eye be cleere and bright, there is good hope: if obscure and tenebrous, it doth prognosticate death. Likewise the excellency of it is knowne in the certitude of the actions, for no doubt it is the sence most assured, whereof commeth the olde proverb, that one witnesse which hath seen, is better than ten which only heard.

Arist. Metaph.

Plautin.
Synecius.
Orphe.
Alex. Peripat.

Blemor.
Cyren.

They are guiders to the whole body.

Psal. 123.

The Philosopher Thales saith, there is as much difference betwixt seeing and hearing, as betwixt truth and falshood Anaxagoras esteemed so of that part, that he thought we were only born to see. Galen Prince of Physicke, doth call it a divine member, which nature hath placed in a hollow place, for which it is called by the Latines *Oculus*: it is so placed, that it should not be exposed to the hazard of a million of injuries.

Thales.
Anaxagoras.

Galen.

juries. They are fortified about with foure hard bones, for their better protection & decoration, as also to apeare more beautifull above them is the forehead, underneath the chaft-blade, on every side the angles or corners with the eye-lidds called by the Latines *celia a celare*, to cover & guard the eye, as saith Isiodorus. In case they should be altered with over-great sight: they have likewise muscles to give voluntary movement with sundry other parts, as you shall heare at length.

Isid. li. 10. ca. 1.

Now seeing the excellency of the eye is of so great importance and profit unto us, the skilfull Chyrurgion ought to take great care & diligence for the conservation of the same, especially to know the temperature and composition of it: the nature of each part thereof, with their functions and offices, to what use they serve; to the end he may use fit remedies for each party diseased, seeing it is holden for a *maxime* in medicine, that one cannot know what commeth contrary to nature in any part, except he will know first the nature of each part and things belonging thereto.

CHAPTER X.

¶ Of the description and Composition of the Eye.

Bartho de proprietat. rerum.

THe eye which maketh man to see, is called of the Greeks *Ophthalmos*: it is placed in the highest part, to make us contemplate high things and discerne a farre off, also to serve for a watch-man and guide, that nothing hurt us. It is of forme round or pyramidall in the inside, which forme is most capable and most easie to move. It is of soft substance and double usage, the one common to all creatures to guide them, the other serveth onely for man, and maketh

him

him to know God by visible things: they be two in number, to the effect if one be toucht or hurt, the other may serve, as also maketh the sight more perfect to see divers objects at once. The temperature is cold and weak; it is very sensible, by reason of the great simpathy it hath with the brains: it is of sundry colours, which either proceedeth of the humor *Tunick Uvia*, or of the spirits: it hath seven muscles to make it move and keep firm. The most part of the Anatomists find only six, which take their beginning at the circle *Orbita*, in the which the eye is placed; the first, is scituated above the eye, to lift it straight upward; the second, is scituated beneath, and pulleth it downward; the third, is scituated in the great corner of the eye, and turneth it towards the nose; the fourth, is scituated in the little corner or canthus of the eye, and turneth it towards the eare or temple, and having accomplished their actions, pulleth it inward. The actions of the other two muscles which are obliques, is to turn the eye, not fully, but in half circle. The first is scituated in the upper part of the eye and the great corner, by a membrain, and draweth the eye towards the nose; the other is scituated underneath, and turneth the eye towards the eares. As concerning the tunicks or membrains of the eye, there is diversitie of opinions amongst the Anatomists. Hippocrates remarketh only four, Galen five, whose opinion Gulmio and Petrus Franco hath followed, and learnedly have written of the eye. Some late Anatomists doe make nine. Andreas de Loran, who is the most excellent Anatomist that hath written, doth remark six. The use of them is to involve and containe the thin humors together in their own place. The first of them is called *Adnata* or white of the eye, it is strong & covereth the rest, & hath his beginning in the pericran, and endeth in the circle *Iris*, which is of sundry colours. The second membrain is called *Cornea*, because it is hard, cleer and strong, like the horn of a lanthorn, and hath the beginning from the *dura mater*. It containeth the humor, and maketh the eye round, and serveth for a lan-

The temperature of the Eye, cold and weak.

Gal lib. 10. de usu part.

Hippocrates. Galen. Gulmio. Petrus Franco.

thorn

thorne to the cristalline eye. The third is called *Uvea*, and is like the skinn of a vine berrie or grape being pressed: it hath the beginning from *Piamater*, which is the second skinn that covereth the braines: it covereth all the eye, except only within, where it is placed in a little round hole, called the pupill or windy of the eye. It is of sundry colours; without, it is black; within, blew and green: it is soft, & preserveth the cristalline humor from the hardnes of *Cornea* and doth rejoyce the cristalline with the diversitie of his colours. It retaineth the spirits that they doe not dissipate, nourisheth the *Cornea* and humors of the eye, for the which nature hath implanted it full of vains and arteries. The fourth is called *Aracnoides*, it is very white and delicate, like unto the thinn striffen of an ynzoyn or Spiders webb: it doth involve the cristalline humor immediately, & defendeth it. The fift is called *Reteformis*, it is interlaced with innumerable little threads like a net, & commeth from the marrow of the nerve Optick, as saith Loran. His office is to bring the animall spirit to the cristalline, report all the visible things to the nerve Optick, & carrieth the nourishment to the humor *Vitrei*. The sixt and last is called *Vitrei*, because it containeth and involveth the humor *Vitrei*, within these tunicks is contained the three humors. The first is called *Aqueus*, for the similitude it hath with water: or like the white of an egg both in colour and substance, it is inclosed betwixt the humor cristalline & membrain *Cornea*, partly to impasse the great drinesse that might happen unto the cristalline humor, as also to defend the cristalline from the hardnes of the membrains. The second and chief principall instrument of the sight is called cristalline, & in Latine *Glacialis*, it is white and cleer like Cristall glasse, midway solide, of figure round, somewhat pressed before and behind, so is more firme and sure, for being altogether round, it moveth over easie, & is not so stable: it is scituated in the middest of the eye upon the humor *Vitrei*, and before it is the humor *Aqueus*: it is involved in the own proper membrain called

It is of sundry colours.

Three humors of the eye.

The first humor & usage.

The second humor and usage.

called *Arnoid*, not known by our ancients. The third and last humor is called *Vitreus*, because both in colour and substance it is like to melted glasse: the use of it is to prepare the aliment to the cristalline humor, and make the blood white, for if it were nourished with pure blood, it would be somewhat red in colour, it defends the cristalline from the hardnes of the membraines, and retaineth the spirits. The eye is likewise endued with two pair of Nerves. The first of them is called *Optasia* in the Greek, and *Visio* in the Latine, which bringeth the spirit animall & interior sight to the cristalline: the nerves Opticks is thought by the old Arabians, to have their originall from the interior ventricle of the brains, and by the Greeks from the middest of the lower part of the brains, the which the most part of all our Anatomists doe hold. Andreas de Loran approveth them to have their beginning from the posterior part of the brains, where the little and micle brains doe meet called *Cerebrum* and *Cerebellum* which opinion is most true, as I have seen in the School of the Chyrurgions in Paris by Master Soveran Pinio Doctor of Chyrurgerie, where he did evidently demonstrate every eye to have one of those nerves pertaining to it: yet doth differ from other nerves, because they be more soft, full of holes and perosities, not cave, as thought Galen and Herophilus.

The Third humor & usage.

Whence their originall is.

Master Soveran *Pinio*.

Those nerves and perosities doe serve to carry the visuall spirit to the eye from the brains, but before they come to the eyes, they be gathered together like the yron of a Mill, making one only body, whereby the spirits and sight is carryed conjuncly to the middest of the cristalline humor, which maketh one eye being closed, we see as perfectly as with both. After this conjunction they do divide, and each of them passe through the holes of the head, and is severally implanted in either eye, and in the interior part of the nerve which is soft, and marrowish, doth dilate it self, and maketh the tunick reticular. The exterior part of the nerve endeth his course in the membrain *Cornea* and *Uvea*.

Why wee see as well with one eye, as both.

The

Two pair of Nerves.

The second paire of nerves are lesse, and goe to the muscles of the eyes, to each eye one, and causeth them to move, and sendeth little small threds to every muscle. This paire hath his beginning and ending with the former. The eye hath likewise divers little vaines and arteries, which bringeth nourishment and life to it, they proceed from the branches of the Jugulars and Carotides. The eye hath also a fatnesse which goeth about it and holdeth it humid, and defendeth it from the cold, retaineth the natural heat, which is the cause that it becometh not cold. The eye hath also three kirnels or glands, one above, another underneath, and the third in the great corner of the eye: The first two hold it moist and weake, and are like unto water sponges, receiving the humor which commeth from the braines, that it fal not in over great abundance on the eye, from those glands procedeth the teares when we weepe either for joy, sorrow, weaknesse, or rubbing of the eyee, as doe women when they would appeare to weepe for any cause. The third which is in the graat corner of the eye, stayeth the excrements which come to fall on the eye, so that those who have those glands consumed, doe continually weepe, as you shall heare in the Chapter of *Ophthalmon*.

Fatnesse of the Eye.

From the glands proceed the teares.

Chapter XI.

¶ A briefe rehersall of such common maladies as befall the whol Eye.

HAving in the former Chapter, briefly shewed the description and composition of the eye, so I shall now set down such common diseases as usually doe happen in the whole eye, and every severall part thereof, beginning first at such maladies as are common to the whole eye, which are divided

divided into Similars, and Organicks: The Similars are in the temperature weak and dry, hot and cold, either with matter or without: The Organicks consist in the evil confirmation, as greatnes, littlenes or in scituation, as when the Eye is over-great, and is called the Ore-Eye, which being cast out from the circle, is not so quick, nor the motion so prompt; by reason the spirits are dissipate, it is called *ex Ophthalmia* or *oculi promanentes* in latine: the greatnes doth happen by the vice of the first confirmation, or by accident, as by tumor of inflamation, or great defluxion: The littlenes of the Eye called *atrophia* or *macies oculi* cometh by nature, and is called the pigs Eye, or pincking Eye: it cometh also by accident, as by dissipation of the naturall heat, caused either by dolor, continual fever, great wayling, weeping, and defluxions, so that the Eye is weakned and cannot draw the nourishment, and so becometh atrofied and extenuate; Or in scituation, as when it is out of the own place, which may happen by cause extern, as saith Avicen, like as strokes, falls, violent coughing, vomiting, blowing, and such like: Or by cause intern, like as great fluxion which loseth all the muscles of the Eye; Or by inflamation or solution of continuity, as when the Eye is burst, called in Greek *Raxis*, and by the Latines *Ruptio*: also by the confusion and mixion of the whole humors together. These be the maladies which occupie the whole Eye. As for *Nictalopia*, *Niopiacu*, and *Amblyopia*, they are not maladies of the Eye, as some think, but only simptomes of the spirits and humors. As for the particular diseases of the Eye, they differ according to the parts, as humors, tunicks, nerves, muscles: so first I shall begin at humors, as the most noble part of the Eye, the which method is followed by Galen. The humor cristalline may suffer all sorts of diseases, but the most common is the intemperature dry, or when it goeth out of the own place; the dry temperature is caused by the withering & drying of the Cristallin called *Glaucoma*, and becometh all white. Hippocrates saith this hapneth oftnest to old people, and is for

Similar parts.

Organick parts

In scituation.

Lib. de simpt. caussis.

Glaucoma.

Hip. 3. aphor.

Symptomes of the christaline Humor.

the most part incurable. The Cristaline goeth divers wayes out of the owne place, as to either side, high, low, over-far down or over eminent: if it be over-far in, the person seeth nearer hand,; if over-far out, he seeth not far off; if it turneth to either side, all the objects doe appear sideways; if it goe up or down, all the objects will appear double: of those some are curable, and some are not: some proceed of cause interne, or by inheritance, and some be contagious, as saith Avicen. The humor *Aqueus* is sometimes over-much dryed up, as chanceth often in suffusions and depriving the sight wholly: if it be much diminished in quantity, the Cristaline humor becometh dry, the *Uvea* becometh withered, and the *Cornea* abashed: As for the humor *Vitree*, our ancients have not remembred any particular diseases, yet it is thought by some late Writers, that it may indure the like diseases as the humor *Aqueus*. As concerning the membrains of the Eye, there is but three of them. In which particular diseases are observed, to wit, the conjunctive or white of the Eye, *Cornea*, and *Uvea*; the conjunctive suffers three sorts of maladies, to wit, *Ophthalmia*, whereof I shall speak in the proper Chapter, *Ungula* and Contusion. *Ungula* is called *Pterigium*, which is a nervous flesh, that beginneth in the great corner of the Eye, and extendeth to the pupill, it is like the nayl of a mans hand, and happeneth after Ophthalmies evill cured; it is accompanied with pruritt tears and redness, which impasseth the sight Of this disease there are three kinds, Membrains, Panniculous, and Adipus, some have it of inheritance, others by accident, when others whole; it is contagious, as saith Avicen, and goeth from one Eye to another, for the help whereof Ætius doth counsell to consume it by corrasives: other old Writers are of opinion to cure it with a needle and thred, after the form as you shall hear in the Chapter of Fistula, intreating of *Carnis lachrimalium*. The third and last Paladie of the conjunctive is Contusion, which is called *Epofiphagma*, and is said by Paulus and Ætius to be a rupture

Simptomes of the humor *Vitree*.

Maladies of the three membrains of the Eye.

a rupture of the veins of the eye, which maketh the blood to disperse through the conjunctive or white of the eye, representing all the objects red, and proceed either of cause extern, as falls, strokes; or of cause intern as when the vains are repleat with a tenous blood. The *Cornea* hath divers Maladies, as Pustules, Ulcers, Cankers, Cicatrices, and Ruptures; the Pustules are black little blobbes called by the Arabs *Boher* and doe proceed of one subtill watrie or bilious humor, of the which some are superficiall, others profound, some of whitish colour, others black: of those sorts of ulcers, there are Seaven kindes counted by the Greeks and Arabians, of the which three be Interne, and Four extern. The ulcers Cankerous are ingendered of a humor atrabiler accompanyed with dolour. The cicatrice is a maladie of the *Cornea*, which maketh it white, it taketh away the light and colour. Rupture, is a breaking of the *Cornea* which ever proceeds of causes extern, *Uvea* wherein is the hole called Prunall or *Uvido* of the eye, is subject to a particular disease called the dissent, which commeth when *Cornea* is broken. The Prunall hath three sorts of diseases, to wit, *Tabes*, *Suffusio*, and *Dilatio*. *Tabes*, is that which is called by the Greeks *Physis* which is an extenuation of the prunall, and is either naturall or accidentall: The naturall is proper for the sight: the accidentall is ever hurtfull, for the which you must give good order to the cause, and in the mean time, foment the eyes with a spung wet in pap milk or Euphrage water that is warm. If the eye be growen great through over great nutriture or abundance of the humors of the head, or any particular affection, remove the cause by purging, bleeding, & good regiment: thereafter apply to the eye Saffron and oyle mixed together, foment the eye with *Aqua Marina* or with water and salt: as for *Suffusio*, and *Dilatio*, you shall hear in their own place. The muscles of the eye are subject to three principall maladies, to wit, *Distortio*, shaking, or great moving and immobility. *Distortio*, is called *Strabismos* or *Illesis* by Hippocrates,

Pan. lib. 3.

The diseases of *Cornea*.

Ulcers Cankerous.

The diseases of prunall.

The maladies of the muscles.

res, and proceeds by the resolution of some muscle, and causeth the eye to move in divers fashions, in such sort that nothing is seen but the white of the eye. The shaking or moving of the eye is called *Hippos*, which is a defect in the muscles, which are so weakened that they cannot contain the eye. The immobilitie, called by Hippocrates *Pixin*, happeneth when the muscles have wholly toucht their action of moving, or by the obstruction of the nerve Optick, which bringeth the movement. The Maladies of the nerve Optick is Obstruction, Compression, Paralisie, and Ruption. The Obstruction proceedeth sodainly of a cold thick humor, which doth stop the nerve Optick. The Compression commeth by strokes, or when the nerve is shrunk by drynesse. The Paralisie proceeds of a thin serous humor, which softeneth & loseth the nerve, representing all the objects double, as sometime happeneth to people that are drunken. The Ruption, is when the nerve is broken or dilacerate, which commeth by strokes, and maketh that the visible spirit cannot passe. All the diseases of the nerve optick make a common simptome, which is called by the Arabians *Gutta serena*; which is as saith Ætius a blindnesse without hurt, apparance, or mark in the eye. Those be the principall maladies which doe occupie the eye, for the which you shall hear principall Rules in the next Chapter following for the conservation of the same, with a briefe rehearsall of such things as are profitable and hurtfull, in generall: with the cure of such particulars as are most common in this Country. But, as for every particular disease of the eye, eye-lids, and corners of the eye; because they be more than an hundred in number, so not meet in this place to make a description thereof, because that divers approved authors have written of the most part of them, both Greekes, Arabians, Latines, and others, whose help I have used in this work: so I doubt not but that the skilfull Chyrurgion will take advice with them in that matter.

Obstruction.

Compression.

Paralisie.

Ruption.

More than a 100. diseases in the Eye.

CHAP-

CHAPTER XII.

¶ Which containeth a Regiment very exquiſite for the conſervation of the ſight, with ſuch things as are profitable, or hurtfull for the ſame.

SUch people who have their ſight either diminiſhed or grown weak, ſhall finde in this Chapter a ſhort regiment, with ſuch remedies as hath been written either by Greeks, Hebrews, Arabians, or Latines, for the conſervation of the ſame: which regiment ſhall partly conſiſt in good Dyet, Pharmacy, and Chyrurgerie.

Dyet.

The form of Dyet hath been thought by our ancients the moſt noble part of all, in ſo much as it is a familiar friend to nature, being rightly uſed, and neither doth alter nor trouble the ſame in any ſort. This Dyet conſiſteth not only in eating and drinking, as thinketh the common ſort: but alſo in the adminiſtratiõ of the ſix things, which the mediciners doe call Unnaturalls; like as, the Ayre, Meat, Drink, Sleeping, Waking, Motion, Reſt, Evacuation, Repletion, with the Paſſions and Perturbations of the minde.

Wherein good dyet conſiſteth

Ayre.

The Ayre which is the firſt, hath a mighty power in altering and changing our bodies; it paſſeth directly by the noſe to the brains, by the mouth to the heart, by the paſſages of the heart and movement of the arteries, through the whole body. It doth furniſh nouriſhment to the ſpirits in ſuch ſort, that Hippocrates ſaith, of the conſtitution of the ayre dependeth the good and evill diſpoſition of our humors and ſpirits. The ayre muſt neither be over-cold, hot, nor humid, but clear, declining to moderate heat, and drineſſe, taking alwayes heed of the ardent heat of the Sun, and rayns of the Moon, and for the Cyring, which is the dew that falleth after the evening: Alſo from cold, moiſtie, and rainie weather:

ther: good dry dwelling is meetest, and if it may not be had, the chamber where the diseased shall remain, must be helped with good fires and perfumes, as did the old Arabians, of leaves of Euphrage, Fennel, Mergeline, of each one ounce, Alloes one dram, Incense three drams, mire all together and make one perfume.

The South and North winde are enemies to the eyes. 3. Sect. Apho.

As concerning the windes, the South and North windes are enemies to the eye, as saith Hippocrates. The ayre which cometh from ditch waters, mosses and rotten carrions are evill, fire, reeke, dust, and blowing of Alchimie; for the which, such as have their eyes weak should not blow at Alchimie in seeking out the Philosophers stone, in case they lose both their eyes and purse also. Over great light is also noysome, as you shall hear in the chapter of Ophthalmia.

Colours.

As concerning the colours, some are hurtfull, others not: the white colour dissipateth the spirits in drawing to it, and the black rendreth the spirits more grosse: as for blew, violet and green, they rejoyce the sight amongst the which, the saphier and emerod are profitable.

The second point consisteth in eating and drinking, the sick must abstain from all grosse, viscous, vaporous, salty, windy, sweet and picking things that are full of excrements, taking heed to eat lesse at night than at noon. As touching bread and flesh, they must be such (and so prepared) as you have heard in the second Chapter of the second Book. Eggs new layd and soft, taken with powder of Sugar, Cannall, and Euphrage, clarifie the sight; but being fryed are noysome. Mergis, Vinegar, and juice of Limonds may be used, Saffron, Cannell, Ginger, Pepper, Nutmegs, Hony, and oyle of Olive, are not hurtfull; all baked meat, milk, and all that commeth of it, is evill. As touching hearbs, some are approved for the sight, as Sage, Mergeline, Betonie, Rosemarie, Mint, Pimpernell, budds of Asperge, Eye-bright, Succorie, Parsly, Carret roots, and Capers. The Arabians recommend Navets, and Turnips greatly, if there be mixed with them Finkell, and Annats, because they are windy,

Soft rosted eggs are good.

Baked meat is not good.

windy. The hearbes which are hurtfull and forbidden, are Letice, Anethe, Baſilick, Purpie, Porthie, Cabbage, Colwort, Garlicke, Onyons, Beets, Spinage, Sybows, Radiſh, Parſnips, Olives, with all raw fruits, which are hurtfull to the ſight, by reaſon of their great humidity, boyled Prunes may be uſed, or roſted Peares are very good being taken with the pouder of Eye-bright: it impaſſeth the fume to goe to the head, Finkell, or Anats, Comfits, Cotunack, Figges and Rayſons may be uſed, and thus much concerning eating.

In drink there are two things to be conſidered, the quality, and quantity. As for the quality, the great Mediciner Achigenes ſaith, in all maladies of the eyes much drink is hurtfull. And as touching the quantity, Ariſtotle in his Problemes ſayth, that thoſe that drink water have their ſight very ſubtill: Yet Raſis and Avicen condemne the uſage of water, which opinion is agreeable to companions that rather would loſe their eyes than want wine: Such as may not paſſe without wine, may uſe a ſmall clean wine not ſharp nor vaporous, that is mixed with water of Eye-bright and Fennell: In the uſage of it, take the flowers of Borage and Pimpernell, and put into a glaſſe, when you drink, the colours reioyceth the ſight, and the hearbs by their vertue rebates the fume of the wine: Fineat and new wine is fumous, and ſtrong wine lyeth long on the ſtomack, ſendeth vapours to the brains. There may be an artificiall wine, made for ſuch as are diſeaſed of their eyes, made of Eye-bright, which is much commended by thoſe who have written of the Eye, eſpecially Arnoldus de villa nova, who affirmeth to have healed an old man who had been a long time blind, only by uſing that wine a whole year, called *Vinum Euphragiatum*, which is made by putting a quantity of the hearb in new wine, let it remain untill the wine grow clear and ready to drink, and uſe it. As for other compoſitions of Eye-bright with the mighty effects of it, are ſet down at length by the ſayd Arnold in his book *de Vino*.

Two things to be obſerved in the drink.
Archigenes.
Ariſto. Probl.
Raſis,
Avicen.

Eye-bright.
Arnold. lib. de vino.

Arnol. de vino.

This herb is of temperature hot and dry, and may be put in the diseased his ordinary drinking wine, as I have sayd of Pimpernell and Borage: and such as desire not wine, may use Hydromell composed of this, take 15 pound of Fountain water, 1 pound of fine hony, mix all in one pot, adding thereto a little Fennell & meases, of Eyebright an handfull, tye all together with a thread and put in the pot, and let it seeth till the third part of the water be consumed: in seething be ever taking away the scum of the hony. The Eyebright may be used in Beer or Ale, being put in when it beginneth to work, and let it remain untill it have left working.

Composition of *Hydromell*.

As for Sleeping, Waking, Exercise, Repletion, Evacuation, with the Perturbations of the mind; I have spoken at length in the second Book of this work. As concerning the second part, it consisteth in ordaining of remedies; for asmuch as the weaknesse of the sight cometh either by evill temperature of the brains, or evill disposition of the eye; therefore the expert Chyrurgion should ever have regard to those two parts. If the brains be over humid, they must be dryed; and the eye weak, comforted.

Plato.

Plato doth admonish us in one of his Dialogues, that we never dry up the brains, neither fortifie the eye by externall remedies, except the head be first purged: and because it is uneasie to purge the head, except the whole body that sends the excrements be first purged, which must bee done with such remedies as have the vertue to evacuate the whole body generally, having alwayes some proprietyy with the eye.

Hip lib. de usu

Pilles for the head.

For this purpose the old Arabians recommended the pilles of *Agaricke*, *Lucis maiores* and *minores*. Or this, take three drammes of Aloes, washed in Fennell or Eyebright water, Euphrage 3 drams, Agarick 1 dramme and an half, Rubarb 1 dram, the bark of Mirabolans, Citrius, rubbed in oyl of sweet almonds 4 scrupl. Cynie well beaten 1 dram, Mastick, Ginger, and Cannell, of each 1 scrupl. the Trosickes of Allandan 5 gra. mallar all these with

juice of Fennell and sirup of Stecas, of the which you shall make a masse, and take a dramm thereof every fourth night once: such as may not use the pilles, may use this sirup Magistrall, take Fennell 1 ounce, leaves, of Eye-bright, Betonie, Fumentarie, Mercury, Succory, Germander, and Verven, of each one pugill, Raysons and Prunes, of each one a duzen, Fennell seed, and Annel-seeds 2 drams, Sage, Stecas, Euphrage, Rosemarie, of each one pugill, let all seeth in clean water, in the expression add unto it 3 unc. of Cynie, and let it insuse warm in that decoction a certain space, with the expression of one ounce of Agarick, of Cloves one dram, or in stead thereof as much Cannall, let all seeth with a quantity of Sugar, to the consistance of a sirup, aromatised with half a dram of Nutmegs, and as much of powder of *Diarrhodon*: if you would add half an ounce of Rubarbe, it were so much the better. Of this sirup you may take every fourth night once, either with a little broth or decoction: capitall Glisters are also much commended for divers diseases of the head and eyes. Decoction sudoriphick, which shall be made of *Salsa parila* skin, with Eye-bright and Fennell seed. It is very much commended for the consuming of the great humiditie of the brains.

Sirup magistrall.

Glisters.

The body being so purged by universall remedies, the brains may be evacuated by the nose and mouth, which are conduits ordinary constituted by nature to that use. The earings draweth the humor to the eye, which is the part diseased. If there be great defluxion on the eyes, you may put in your nose a spice of that bone which is found in the heart of an Ore, it hath the vertue to stay the fluxion: or you may apply on the forehead a cataplasms made of Bean flower, sodden in water and Vinegar.

Earings.

To stay the fluxion of the Eyes.

Hippocrates ordaineth defluxions of the eyes, to be diverted by the mouth. For this purpose take Raysons, and wet them with a drop of the spirit of Fennell, and chew in the mouth, or rubb the roof of the mouth with the essence of Fennell; It will draw down the humor that way: Sage, or

6. Epid. sect. 2.

Masticatories.

or Peritar to chew in the morning, were very good. The Masticatories are more to be approved than the Carings for sundry respects. These things being done, you shall use conserves that have the vertue to fortifie the sight: take the conserve made of the flowers of Euphrage, Betonie, and Rose-marie, of each one ounce, Teracke 3 drams, conserve of Roses, half an ounce, pouder of Diazodum 1 dram and a half, Masses 2 scrupl. Make an Opiat with sirup of the conserve of Cytrons, take a little of it each morning at your rising. After your meat you shall use a pouder digestive made of Coriander, Fennell, red Roses, Corall, Peril', Euphrage, and Sugar rosat, put all in fine pouder, and use of it a little after meat. There be also certain externall remedies which are used for the clarifying of the sight, of divers sorts and diversly composed; but here I shall content me with some few which I have oftentimes used. You shall wash your eyes everie morning with this distilled water, Take the crops of Fennell, Ruth, Euphrage, Verven, Tormentill Betonie, Roses, Pimpernell, Agramonie, Carbell, Isope, and Selydon, of each one a handfull, shear all small and infuse them in white wine for the first time; next in the water of a young boy that is in good health, the third time in womans milk: last of all in fine honie distilled, as in a Lymbeck, and keep it in a close glasse, and put it every morning (and at certain other times) in your eyes: you may also wash your eyes with white wine, wherein hath been sodden Fennell, Eye-bright, Selydon, and a little Myrabolans: or this, Take a pound and a half of white wine, as much Rosewater, Tuthea, as much, Meases half an unc. put all in a well stopped glasse, and set it in the sun the space of twenty daies, remove it every day once and use it for your eies. Unguents are much commended, amongst the which this is most soveraigne, take two ounces of Swines grease that is very recent, steep it in Rosewater six houres, then wash it twelve times in white wine, thereafter add to it an ounce of Tuthea that is well prepared & put in pouder, one scruple

Conserves for the sight.

Distilled water for the Eyes.

Unguent for the Eyes.

scruple of the stone Hematites well washed, Alloes washed and put in powder twelve gra. Pearles three gra. incorporate all with a little water of Fennell, and make an unguent thereof, of the which you shall put a little in the corners of your eye, There be divers colours and powders which may be used, in the which I have not found such successe, as in waters. As for Chyrurgerie, which is the third point, it consisteth chiefly in applying & using the former remedies with bleeding, cunning ventosing, applying of censurs or blood-suckers, cauters, frictions, baths, and such like, as you shall hear at length in the eight Book following. These be the means by the which the sight may generally be conserved.

Aristotle instructing *Alexander.*

CHAPTER XIII.

¶ Of the tumor in the Eye, called *Ophthalmia* by the Grecians, and *Lippitudo* by the Latines.

HAving in the four precedent Chapters spoken of the Eye, and the diseases which are generally incident thereunto, with a brief regiment for the conservation of the sight: So now I shall intreat of some few diseases in particular, which I have found the people in this Country most subject unto, beginning at *Ophthalmia*, which is an inflamation of the whole Eye, but chiefly of the membrain called Conjunctive, with great redness and dolour. The cause is either internall or externall; the externall are strokes, heat, dust, winde, great cold, rubbing moths in the Eye. The internall cause, is defluxion of humors, as also the veins externall and internall of the head being repleat, whereof proceedeth great fluxion; also the sanguine, choleric,

Definition. *Paul. li. 3 ca. 22*

Cause.

lerick, phlegmatick humor which ascendeth to the head.

Signes. The Signes are manifest, like as great inflamation, redness, heat of the Eyes, and temples, dolour, repletion of the vains, hardnesse.

The degrees thereof. This sicknesse hath four degrees, like as other tumors, and happeneth often to young children and others who have weak Eyes, which is the cause that they are subject to fluxion of humors.

Judgements. The Judgements are; the matter is sometime hot, otherwhiles cold, and those which happen in Winter are worse than in Sommer, if they be neglected, and evill handled, there insueth often evill accidents, as spottes, rupture of the *Cornea*, and divers others; if the dolour be vehement, it is dangerous in fear of corruption, and corrosion of the *Cornea*.

Gord. li. citato.

Cure. As for the Cure, there are three things to be observed, the first is good dyet, eating little, and chiefly at night, abstain from all vaporous things and of evill digestion, such as fish, fruits, spices, salt, and humid things. Abide neither in great darknesse, nor in too much light; great light dissipateth the spirits, and sometime causeth blindnesse, as I read of the souldiers of Zenophon, who by going long in the snow, became almost blind. Also Dionisius the tyrant of Sicill made his prisoners blind after this sort: first he imprisoned them in a very dark place, then brought them suddenly unto great light, so made them all blind. Make not much, and abstain from the great passions and perturbations of the minde, from smoak, from dust, and blowing of Alchamie, for it hurteth the Eye, and consumeth the substance, and maketh men miserable both in bodie and goods; hold up thy head, abstain from wine, women, and such like, as you may perceive by these Verses of the learned Gordonius.

Great light causeth blindnesse.

Ætius serm. 7. cap. 3.

Gordonius.

Hæc oculis multum, sol, pulvis, fumus, & æstus
Ventus, cum fletu, vina, Venusq; nocent.
Aeria ne mandas, nec quæ sunt plena vaporum.
Nec capas, lentes, allia, pira, fabas.

Moreover,

Moreover, you must abstain from all Narcoticks except in violent dolours. The second intention consisteth in evacuating and everting the humors by pilles, glisters, bleeding of the vain Cephalick, ventosing on the shoulders, frictions on the thighes, legges, and extremities, opening the vains and arteries of the temples. The third intention is in topicall remedies, as colours of divers sorts, according to the diversitie of the degree and time of the Apostbumes; as in the beginning of the inflamation, take Plantane water, and Rose water, of each half an ounce, two whites of Egges, a little Fennell water and womans milk, the mussilages of Psilion with a little trosistes of Rasis *sine opio*, a little Camphire, put of those in the Eye: Also water of Ruth, Vervin, Roses, and Celidon, and apply it often to the Eye; at night make a Cataplasme of a rosted Apple wrought with womans milk, and a little Rose water, put it betwixt two peeces of linnen cloth, and apply it to the Eye, or this remedie which I have often proved, not only in Ophthalmia, but also in divers other maladies of the Eyes, take two ounces of white Wine, as much Rose water, Euphrage half a crown weight, of Tuthia prepare as much, Aloes a little, three or four leaves of mastie, put all in a vial and stopp it close, set it three weekes in the Sunne, and instill thereof in the Eyes, in the mean time use implasters in the temples of masticke *de bolo et contra rupturam*, and such like, to stay the fluxion: for the great dolour, the blood of a pigeon, turtle, or hen, under the wings, and instill it in the Eye, also milk with the yolk of an egge and a little rose oyle, may be likewise applyed. Likewise for the dolour of the Eye Chelmeteus consaileth to take a rosted apple, yolk of an egge, rose water and womans milk implaite in form of Cataplasme, also a peece of white bread the thicknesse of half an inch and breadth of twelve-pence steeped in rose water, and papp milk, and apply betwixt two peeces of cloth to the Eye.

Hip. usu.

Topicall remedies.

Cataplasm. for the Eyes.

Jesus lib 3. de oculis.

Paul. li. 7. ca 3.

Chelmeteus.

CHAP-

Chapter XIIII.

¶ Of the weeping Eye, called by the Latines *Fluxus oculi*, or *Delachrimatio*.

Definition.

Cause.

Signes.

Judgements.

Cure.

Mesues de egritud. oculorum.

Albuc. lib 2. cap. 4. & 5.

Petrus Fran. corde Herneus.

O *Phthalmon* is a continuall flowing and falling down of a thin watry humor on the Eyes which sometimes is hot, other times cold, it causeth aboundance of watry humors in the head, cheifly such as have very great heads. Also by fever applying of sharp medicaments in the Eye, also great weaknesse of the vertue retentrix and concoctrix, or by some stroke in the kernell of the Eye; The Signes are evident to the sight, like as rednesse about the kernell of the Eye, with great heat: which sheweth that the defluxion commeth from the vains of the Pericran. The Judgements, it hapneth to some by nature from their childhood, which hardly may bée stayed, it is almost ever painfull, with inflamation and blear-eydnesse, and is for the most part incurable, especially those who have great heads or have gotten streakes with losse of substance of the kernell of the Eye. The Cure consisteth first, in good regiment and using of things of good digestion, that hath a dryed vertue, abstaining from such things as ingender humiditie and vapors: evacuate the body with purgations, and pilles. If there be plenitude, let blood the arme of the sore side, also the vains and arteries of the temples, as shall be thought expedient: Next use frictions of the head and shoulders downward application of cauters and cetons to divert the humor, with an emplaster on the temples, that hath the vertue to compell the humor to fall down, made thus, *Rec. sanguis draconis, boli armenici, masticis, an. unc. 1. misceantur cum albumine ovi et aceto, fiat linamentum,* which you shall apply on the temples. Also the astringent plaster set down in the generall Chapter of wounds, intreating of the suture incarnative, with this oyl written by Petrus France, *Rec, ceruci abluti, sarcocolæ nutritæ, acaciæ,*

cacie, licei olibani, an. drag. 2. margaritarium dragm. semis succi mali punici accosti dimidias quantum sufficit fiat colyrium, which you shall use morning and evening. Rasis doth counsell in the continuall flux of the kirnel of the eye the patient to bath every morning fasting, and to apply this powder in the Eye, thus made, *Rec. tuthiæ dragm. 10. corall: rubei mirabolani citrini fricati, aloes an. dragm. 2. piperis darg. semi. fiat ex his pulvis.* which you shall put often in the Eye: by the using of this powder and the bath, Rasis doth testifie to have cured many.

Powder for the Eye. *Rasis Morb. oculi. lib. 19.*

Chapter XV.

¶ Of the Fistula in the corner of the Eye, called *Ægilops* in Greek, and *Fistula Lachrymalis* in Latine.

A *Egylops* is a little tubercle or apostbume called by the Arabians *Gareb*, it doth occupy the great corner of the Eye towards the nose; which being opened, there issueth out a thin virulent humor or matter: it being over-long in opening or negligently handled, becometh fistulous in the flesh with corruption in the bone. The cause is evill humors from the whole body, chiefly from the head, which not being hastily matured, acquireth a putrifaction, and bitternesse, which doth corrode both flesh and bone, and maketh a cavety wherein is contained a matter sometime like unto milk, slimie, glutinous or water, sometime of mid-way consistance, which issueth either at the corner of the Eye without, or at the nose within. The signes are evident to the sight, vering and paining the Eye continually with inflamation, rednesse, and alteration of the bone, which may be known by the sound, by the which you may percieve an aspiration or hardnesse. It is sometime of a canckrous angry nature, and dangerous to be dealt with in fear of hastie death. The prognostieks, all those Fistules are difficile to cure, both for the nerves to the eye,

Definition. *Celsi. li. 7. ca. 7.*

Cause.

Signes.

Iesu lib. de oculis.

eye, as also the flesh being consumed maketh a continuall weeping in such sort, that hardly can the ulcer consolidate, but causeth the bone to corrupt and putrifie, for the which the most part of all fistules in the eye are incurable, except only by using of the Cauter actual, as I have often seen. The cure is first to purge the body if it be repleat, either of humor or blood: The humors must be cured by fit medecines, and the blood evacuated by the cephalick vain of that side the fistule is on. As for topicall remedies, I am not of opinion with some of our ancients, who did approve the use of repercussives, I counsel rather resolatives and maturatives, making the overture so speedily as may be; next cleanse the wound with some mundificative that is gentle, and wash it every day with decoction of Celydon, Ruth & Vervin, with a little hony: also for this purpose you may use claret or white wine with honie, wash the wound and dry it gently. The which method may be also used in *Enchylops*, which is an Apostthume in the great corner of the eye: As for the cause, signes, and cure of it, they differ little from the other: If the fistule be with corruption of the bone, you shall first dilate gently the wound or ulcer to the ground, till such time as you perceive the bone discovered, which shall be done with tents of Caddish, Genstan, or Spunges prepared and wet in Hony, thereafter use this coller which is astringent and drying, set down by Rasis thus, *Rec. Allocs, Thuris an. drag. 1. sarcocollæ, sanguis draconis, balanstiæ, antimonii crudi, albuminis an. drag. 1. fom. æruginis quartam partem unius drag. misceantur cum aqua euphragiæ fiat collyrium.* The which you shall instill every morning three or four drops in the fore; thereafter let the patient lye two or three hours on the whol side, presse out the matter every morning before you wash the Ulcer, and dry it well before you apply the coller, and so continue this form till such time as by pressing it, there issue no more matter. By this means the said Rasis affirmeth to have cured many. Gordonius sets down a potion which hath a mighty vertue for such Pustules: If by these means you pro-

Cure.

Tral. li. 2. ca. 8.

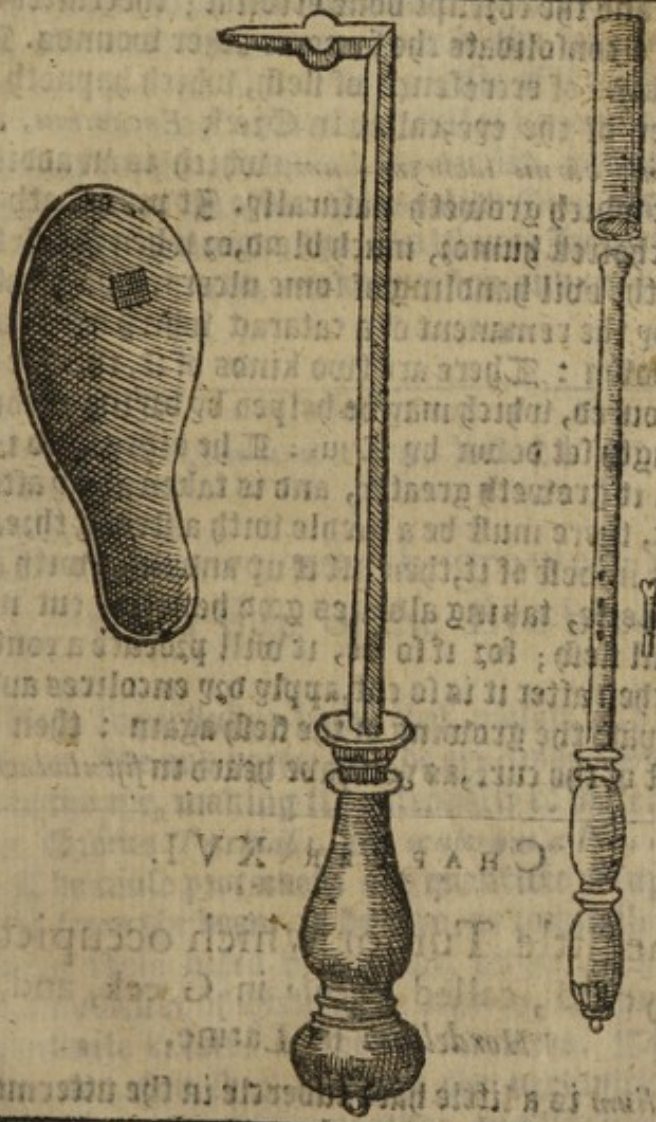
Enchylops.

Rol. li. 1. ca 38.

Rasis morb. parti. li. 19.

profit not as yée would, yée must dilate the wound as yée have heard, and apply an actuall Cauter purposely made, according to the proportion of the wound and corrupt bone. *Albuc. li. 2. cap. 19.*

Cauters actuals for the fistula in the eye.



Beware in using the Cauter you touch no other part. After the Cauter be used, apply oyl of Roses, Rose-water, Plantine, or solanum, beaten with the white of an egg; let the patient lye with his head well high, then procure the fall of the scarre and corrupt bone, with fresh butter or common digestive made of Therebintin well washed, oyl of Eggs, and a little Saffron, which you may use while all be well mundified, and the corrupt bone exfoliat; thereafter fill up the wound & consolidate the same, as other wounds. There is another kind of excrescence of flesh, which happeneth in the great corner of the eye, called in Greek *Encanthus*, and by Avicen *additio carnis lachrymalium*, which is an addition of flesh to that which groweth naturally. It procedeth either of a melancholick humor, much blood, or when the flesh groweth after the evil handling of some ulcers, which hath procéded, or by the remanent of a cataract which hath bèen left on beaten down: There are two kinds of it, the one is tender, red coloured, which may be helped by drying medicines, as is at length set down by Ægius: The other kind is more malicious, it groweth greater, and is taken away after this form: first, there must be a needle with a strong thread past through the midest of it, then lift it up and cut it with a sharp shear or bistezie, taking alwaies good heed you cut none of the naturall flesh; for if so be, it will procure a continuall weeping; then after it is so cut, apply dry encolires and powders to impash the growing of the flesh again: then follow out the rest of the cure, as you have heard in *fistula lachrymal.*

Albuc. lib. 2. cap. 17.

Cause.

Adamus Lenicerius de conf. valetud.

Cure.

Celf. li. 7. cap. 7.
Albuc. lib. 2. cap. 16.

Hip. li. de visu.

CHAPTER XVI.

¶ Of the little Tumor which occupieth the Eye-lid, called *Pisthia* in Greek, and *Hordelium* in Latine.

Definition.

Hordelium is a little hard tubercle in the uttermost part or border of the eye-lid where the hair doth grow, it is of

of form like a Barley corn, whereof it taketh the name. In vulgar language the Staying; it cometh to maturation slowly; it is oftentimes contained in a little membrain or bagg, like Atheorema. If it be of long continuance, it groweth to such hardnesse, that scarcely it doth receive any cure. As for the Cure, Galen, Musa, and others counsail resolatives to be used, I have found nothing better then to open it with a bistorie or launcet, as counsaileth Paulus, Celsus, and Ætius, evacuate the humor, cleanse the sore with yolks of egges and honey; thereafter a little of the colyre set down by Rasis in the chapt. precedent, till it be whole. Sometime this tumor happeneth within the eye-lid, and is more round and mobile than the other. It is called *Grando* by the Latins; in the vulgar language, the Hailstone. In curing whereof turn over the eye-lidd, make incision, and cure it as the former.

Staying

Cure.
Galen.
Musa.
Celsus.

CHAPTER XVII.

¶ Of the haire which groweth in the inward side of the Eye-brees.

THose superfluous hairs that molest and prick the inward side and borders of the eye-lidds, which are noysome to the eye, making it continually to water, it is called by the Græcks *Trichiasis*, and *oculorum a Pilis infusio* in Latine. The cause proceedeth of a quantitie of superfluous humiditie from the head. The cure, as counsaileth Rasis, is to pluck out those hairs by the root, either with some instrument, emplaister of Mastick; or otherwise, whereof you will finde infinite receits of the old Writers. The hair being plucked out, you shall annoynt the part with the head of a Frog, or scrapings of yron sodden in Vinegar, as counsayleth

Definition.

Cause.
Jesus li. de ocul.

Cure.
Rasis marb. part. li 6. ca. 29

Gord. tract. 3. leth Gordon. I have often used for this purpose Crocus Martis, sodden in strong Vinegar and annoynted the part. *Alexis li. de secretis.* Or this set down by Alexis of Pimunth, for a rare secret, and learned by him of a noble Lady in Syria, which is excellent *Mes. de oculorum egritud.* for the taking away of hairs in any part; Take a peece of pure gold that is small and round like a ring, somewhat crooked at the point, heat it hot in the fire, then rub the inward side of the eye-lidd gently where the hairs doe grow, thereafter annoynt the part with oyl of Roses and Violets; if need be, the next day doe the like; and if they yet continue, *Rasis loco cita.* doe the like, the gold maketh that no cicatrice remain. Rasis doth counsail the usage of an hot yron or needle, and apply *Cels. li 7. ca. 7. Avicen.* as the former. If after this they yet grow, you shall use this linement set down by Avicen; which is made of Jusqueam, Opium, and Psilium, seeth them in strong Vinegar, with Seruce of vines, and lead, of each a like quantity: incorporate all with a little Allom, and water of Jusqueam, annoynt the *Gord. part. 3.* part. Gordon counsaileth only the Jusqueam, Mandragour, and Opium. For this purpose some doe commend Opium, Mussilagis of Psilium, Seruce, Lead, Litharge, powder of Margaritis, with a few of those little worms that doe shine in the night, and annoynt the part therewith. Or this linement, which I have sometime used, Take the juice of Jusqueam, Sanguis draconis, Gumm Arabick, and Incense, of each six drams, Rozall water a little, incorparate all and make a linement, and annoynt the part therewith.

Linement for haires.

Chapter XVIII.

¶ Of the enlarging of the pupill of the Eye, called *Mydriacis*, and *Dilatatio Pupilla* in Latine.

Definition. *Pa. li. 3. cap. 2.* Mydriacis is a dilating or enlarging of the pupill or apple of the eye, which happeneth when the membrain

Uvea

Uvea is enlarged at the hole or window of the eye, and doth represent the objects more great, confused, and unperfect, than they ought. The signes, the sick looketh fair up with the eye in the own colour; sometime the prunall appeareth to be changed out of the own place, called by Arnoldus, Pupillæ è loco remotio. The dilatation happeneth sometime by the vice of the first confirmation, and seeth reasonable well; but being much dilated, it is incurable. The cause of this disease, is either internall or externall: The interns are the humors which by little and little floweth from the head, and cause the Uvea to dilate, whereupon ensueth the dilatation of the pupil it happeneth often after long diseases of the head, and in so much as may be, is helped by dyet and purgations. This happeneth often to yong children after long sicknesses, who are only cured by simple remedies, close keeping from cold and great light. The cause extern cometh of strokes or falls. The cure consisteth much in good dyet, abstaning from all things that doe provoke and carry vapours to the head, and hurt the eye. Also purgations and bleeding in the armes and corners of the eye, frictions and ventosing of the shoulders with scarrification, next instill in the eye the blood of a Chicken or Pidgeon, taken out of the vein under the wing. Rasis doth counsail to take the gall of a Kidd or Crane and instill in the eye; which opinion Avicen holdeth, adding to those galls Saffron, juyce of Lymons, Armoniack, Hony, and Fennell water; thereafter use this plaster to comfort, made of Bean-meal, Althea, Cammomill sodden in Claret wine and water: Or a fomentation made of red Roses, Myrtles, Cammomill, and Melilot, of each one handfull, seeth them in a little wine and Rosewater, foment the eye with spunges.

Signes.

Arnoldus.

Cause.

Judgements.

Jesus filius haly lib. 2. de oculis.

Cure.

Blood of a Pidgeon or Hen.

Rasis lib. 9. morb. parti.

CHAPTER XIX.

¶ Of the web in the Eye, called *Suffusio Cataracta* and *Hypochyma*.

Definition. SUffusio is a maladie called by the greeks *Hypochyma*; and by the Arabians *aqua* and *gutta*; in english, the Cataract or Ley, which is an abstruction of the prunall, by a gathering together of a thick hardned or congealed humor betwirt the membrain *Cornea* and humor Christalline, directly upon the prunall empashing the sight. There is diversitie of opinions amongst the ancients, concerning this maladie. Haly Abbas, and Azaranias say, that this humor is gathered betwirt *Uvea* and Christalline, Avicen, Mezues, and Albucasis, doe esteem it to bee and remain betwirt the *cornea* and *uvea*. I am of opinion, that it may remain in all that space betwirt the *cornea* and Christalline, and doth mix it self with the humor aqueus. The cause is, partly as you have heare, in the definition, partly strokes, and falls. Paulus Ægineta saith, that the cause antecedent, procedeth of coldnes and imbecilitie of the visuall spirits, specially in old people, and such as have long sicknes and vehement hot fevers, sometime by great vomiting, or traveling and journying: It may also proceed of vapours which ascend from the stomack, either by the indigestion, repletion of evil humors, or vapors which ascend from the stomack. This humor is sent from the brains by the veins and nerves to the part, or ingendereth in the part it self by the weaknes of the facultie Concoctrix and Expultrix. The Signes when it beginneth, the sick doth imagine to see before his Eyes little things like flies or moats, like the dust of the sunne, threads of wool, haires, spiders webs, or as it were a circle about a candle when it is lighted, thinking one candle to be two. The judgements, some are curable, others not those which be curable are of the colour of rusty Iron, or white, tending to

Haly Abbas
Azaranias.
Avicen.
Mezues.
Albucasis.

Cause.

Paul. li. 6 ca 21
Gal. loc. affect. 3. cap. 1.

Rasis lib. 9.
Ætius serm 7. cap. 31.
Avicen tertia tertii. cap 19.

Judgements.

to the colour of pearles, or of an ashie or greene colour, like a turkisse or sea-water. All these be good and fit to be couched being ripe, which you shall know thus; first streake the whole Eye of the sick, then rub the lid of the sore Eye gently with your finger or thumb, turning it gently sometime to one side, sometime to another, but beware in over-much rubbing, for that troubleth the eye. Then opning it suddenly if you perceive the Cataract spread large and suddenly goe round together as before, it is a token that it may be abated: those which are incurable and not to be touched, are of the colour of lead or chalke; Cytrons black or yellow, they be all evil & receive no curation. The Cataract doth oftentimes take the colour of that humor it is made of; that, which after it be rubbed, doth spread and goes not together againe, but with great difficulty, hardly doth receive any cure: that which cometh by strokes, falls, great sicknes & head-ach, are all incurable, and in those cases if it be taken down, the sick seeth little or nothing, by reason the humours and spirits are resolved: Here you must mark, that som Tayes be sooner confirmed than others: For som are formed in ten moneths, others in five or six yeares, according to the temperature of the person, and nature of the humor whereof it is made; of this divers examples could be given, but for the present I will only recite two; The one of a servant of my Lord of Laudum, who had a Cataract five yeares on both her Eyes, which when I did see, I caused her to stay one yeare there longer, till it became more ripe, then I did couch them both and restored her to her sight. Likewise a Servitour of the Lord of Craiggie Wallase, who had a Tay on his Eyes, the space of nine moneths or thereabouts, which was sufficiently ripe, so I did couch it; & restored him in like manner to his sight. Somtimes the Cataract is accompanied with obstruction of the Nerve Optick, called *Gutta serena*: this you shall know in demanding of the patient, if he doe see any shadow against the Sunne or fire: if he doth see nothing, there is obstruction; and in that case the couching of

Cataracts incurable.

Examples of confirmed Cataracts.

the Cataract doth profit nothing: So it is the best not to deal with such Tayes. The cure is either by Medicine, or Manuall operation: That which is confirmed medicine doth profit nothing. I have oftentimes seen in Paris, and other parts being in practise with learned Physitians, at sundry Patients, that all remedies that could be devised for them, were long used, profiting nothing, but only holding back the ripening of the Tay, which I did ever mark, and it was ever more hurtfull, than profitable to the sick. Those which are taken in the beginning may be helped by the form of regiment, Purgations, Glisters, *erichnea* or *nasalea* masticatories, sternutories, colyres, ventosses, setons, Cauters, censures on the temples, vescicatories, bleeding of the arteries behind the eare, with divers other medicaments which have the vertue to discusse and resolve, which are at length set down by Avicen, Ætius, Rasis, Arculeus, Gordonius, Savonorala, Marc. Catin, Galen, Paulus, Mezues, with sundry others, whose opinion I doubt not but the learned Physitian and Chyrurgion will follow, such as are already formed, or yet in forming, and are incurable, either by Physick or manuall operation. Of the which I have repeated divers sorts which may be prolonged, and kept from growing for a long time by the usage of such medicines which are amply prescribed by those learned Authors whom I have rehearsed.

Celsus. 6 ca. 6

Helpes for the Cataract by Physick.

Gualter bra. praxis medicina.

CHAPTER XX.

¶ Of the Cure of the *Cataract* by manuall operation.

Avicen tertia tertii cap. 20.

THe Cataract being ripe, which you shall know by such signes as you have heard; the body must bee purged and

and prepared by medicines, ſirups, and bleeding if need require, then the ſick ſhall reſt a day or two: in caſe the medicine doth provoke vapours to aſcend to the head, alter the body, and maketh dolour, then the time moſt proper muſt be choſen for the cure, which would be in the Spring time or Sommer, or in other times for neceſſitie, the weather being temperate and dry neither rante, windie, over-hot, nor cold, neither over-light, nor obſcure, the wayning of the Moon is moſt meet for divers reſpects before the operation: The ſick muſt uſe a ſtraight diet, eating little and drink very weak two dayes before the cure: As alſo the whole time of the cure, then crave Gods bleſſing for his aſſiſtance, as we ſhould doe in all operations, which being done, we come to the manuall operation, which ſhall be meeteſt in the morning about eight or nine of the clock: the patient being weak, give him a toſt of bread with ſmall wine, or clean Ale, thereafter ſet him on a fourm or ſtool in ſome light place, in ſuch ſort that his face be directly before the Chyrurgion, then one muſt ſtand behind him to hold his head faſt and ſtable, and another muſt hold up his eye-lide with his thumb and finger, that the Chyrurgion may ſee the better; that being done, the Chyrurgion ſhall ſit on the ſame fourm, or ſome other ſeat ſomewhat higher, directly againſt the ſick, and ſo neer, that the hands of the ſick may reſt upon the Chyrurgions thighs, then the Chyrurgion ſhall ſtabb the Needle

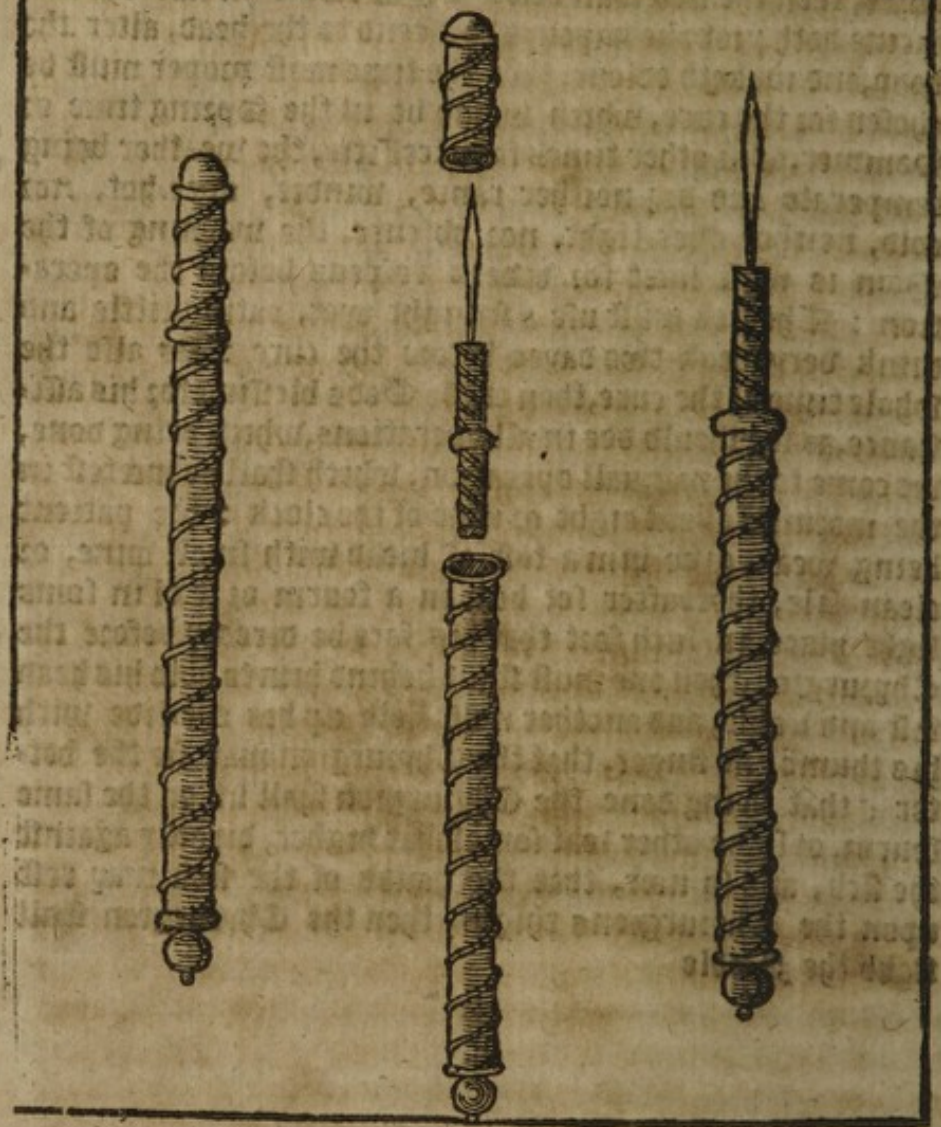
Temperate time for abating the Cataract.

Goe to the operation in the morning.

The manner of abating the Cataract.

Needles

Needles to abate the Cataract.



The Needle must be smooth and hot.

often in som cloth to make it sound and hote, it must neither be rough nor cold to the membraines of the eye: then the operatour; or some young childe who hath a sweet breath, shall chew Synamon, Ginger, Cloves, or Fennell, and spit it out, and breath thrée or foure times in the eye of the sick, it being open; & that preparetb the eye, & maketh the Cataract

more

more thin, then he shall cause the sick to close the whole eye, and hold it close, for if it move, the sore moveth also, & hinderth greatly the operation. Nert the Chyrurgion shall cause the patient to open the sore eye, and turne it towards the nose: if it be the right eye, the Chyrurgion shal with his finger and thumb of the wrong hand upon the eye, hold it stable and firm, which being done, the Chyrurgion shall thrust in the Needle, which must be sharpe pointed, a little lower than the middest of the eye, overthwart the membraines named *Conjunctiva* and *Cornea*, taking alwaies heed not to offend the vaines of the Conjunctive, let it goe towards the side of the little corner which is neare the temples, directly to the foreside of the cataract, not advancing over far: Some doe counsail that needle be so conveyed, that it be the thicknes of two sixpences from the black of the eye, so is it the easier to be couched low, but it is difficiler to pierce: others passe the needle through the middest of the black of the eye, conveying it before the Cataract til it come to the top of it, & taking good heed in pricking of it, then by little and little turne the needle gently untill such time as you couch it to the lowest part of the eye, and being there hold it down a pretty space, then retire the needle the way that it went in; if it doth rise againe, as often chanceth, the dolour being ceased, passe the needle as before, but not at the same passage: apply suddenly your apparell, that the eye be neither too light, nor exposed to the eare, which shall be made of whites of eggs beaten with Rosewater and oyle, and putting cotton or soft caddis, and apply it to the eye with a soft cloth wet in the same, and apply on both the eyes, with a restreintive on the forehead and other neere parts made of whites of eggs, bolarmeni and sanguis draconis, let all lye for two or three dayes, if other accidents happen not: this form must be continued for twelve or fifteene dayes, handle it every day once, keeping his bed, and moving his head so little as may be, and his head must ly higher than the rest of his body in all this time use only broths and other supping meats, abstayning from hard

The Needle must be sharp pointed.

Divers formes of using the Needle.

It must be handled every day once.

Not for to move the teeth till the accidents be past.

hard meat, or any thing that moves the teeth; the moving of the teeth draweth the humor to the eye, and causeth the Tay to ascend again; ever when you dresse the sick, keep the windows shut and the candle behind him, over great light troubleth the eye and dissipateth the spirits: this order you must observe till the accidents be past, then remove the apparell and wash the eyes with Rose, Fennell, or Euphrage water, wipe them with a soft clean cloth, then put a lighted candle before the sick in a great chamber, cause him first to ope one eye, but take heed that neither of the eyes be opened untill six or eight daies be passed. When the cure is perfected and the accidents going, he must yet for a space be kept quiet, holding a green cloth before his face, and use conservatours of green glasse: let him to light by little and little; for being oversoon exposed to great light, it will be hurtfull. Here you must mark, that sometime in passing the needle some veins or arteries are opened, so blood issueth, which joyneth with the humor Aqueus, in such sort that you would think the eye to be lost, yet in three or four dressings it becometh well. This I thought good to shew, that the yong Chyrurgion be not discouraged. There be som sort of Tayes which are so soft that they may not abide the needle, such are called Cataracta Lactea, being like unto milk both in colour and substance: in those sorts of Tayes the Chyrurgion must with his needle presse it on every side, so the most grosse part will fall away and become low, the thinner part will consume in such sort, that oftentimes the sick recovereth his health, as I have sometimes seen: as for a number of other simptoms which happen in the cure of the Cataract, you shall take advise with Rasis, Jesus, Rondoletius, Petrus Franco, Jac. Guilmeau, and divers others.

The sick must be put to light by degrees.

Cataracta Lactea.

The cure of the *Cataracta Lactea.*

CHAP. XXI. Of the dolour in the Eares.

Barthol. de proprict. rerum.

The Eare, which is the instrument of hearing, hath the name Auris, as Haurio to take, because it taketh the voice

voice and sound of things which are brought unto it, and serveth man for many uses, yet is subject to divers diseases, as dolour, apostume, inflamation, wormes, ulcers, sounding or noise, deafnes, and sundrie others: The dolour of the ear happeneth many waies, as by cold, heat, or by both, by wormes, &c. Thick and vaporous humors, which stop the passages, apostumes, ulcers, crisis of fevers, and such like. Like as there is divers causes of dolours, so there are divers kinds. Galen maketh mention of five kinds. The Signes are knowen by the temperature and words of the sick, as heat, inflamation, distention, heavinesse, and so forth: the distention doth declare vapours or wind, the heavines declareth a grosse slimie humour. The Judgements, if it happen either with vehement fever, or in the crise of fever it is dangerous: if the dolour be in the cartilage or outwardly in any part of the ear, there is small danger; if within the conduit or hearing of the nerve auditur, it is perilous, & death often ensueth. The Cure consisteth, first in taking away the cause by purging the humor that offends, by bleeding of the cephalick vain and ventosing, if there be inflamation: next, in prescribing of dyet according to the nature of the pain, abstaining alwayes from vaporous things. As for locall remedies, if the pain doe proceed of cold, apply hot remedies without: as also instill within made of oyl of Rue, Lillies, & Euphorb: if it proceed of heat, apply outwardly, & instill within whites of egges, oyl of Roses, Wormwood, and pap milk: if dolour happeneth by inflamation draw blood as counselleth Paulus, and foment with Rose oyl, or diachilum dissolved with oyl of Rose, and Anethum, as counselleth Mezues. If the dolour commeth through worms in the eares, you shall instill the juice of Absynth, Capers, Calaminth, Sentorie, or figs; if it proceed of thick grosse humors or vapours, you shall make a decoction of Cammomill and Anethum; receive the fume of it by a pipe of white Iron or Brasse, otherwise instill juice of Rue or water of milk distilled with a little Saffron.

Cause.

Divers kindes of dolours in the eares.

Signes.

Pau. li. 3. ca. 23.

Judgements.

Hippo 3. Prog. text. 15.

Gal 10. meth. cap. 7.

Cure.

Arculeus.

Avicen.

Dolour by wormes in the eares.

CHAP-

Chap. XXII. Of the tumors in the Eares.

There cometh many grievous tumors in the ears, which sometimes possesse the whole eare, other whiles some part thereof. The cause is an hot corroding humor, descending from the nerves of the first conjugation, which are dispersed in the conduits of the eares, by the dura mater: it doth proceed likewise of a vaporous spirit and cold thick humor, which maketh difficulty of hearing, and sometime deafness. The signes are manifest. The judgements, young people are more grievously tormented than old, and doe often die before it come to suppuration, and that within seaven dayes, by reason of the great accidents, like as fever, lightnes, and sounding. In old folks it commeth often to suppuration, yet the dolour is very vehement, by reason of the nerve: also by the membrains for the propinquity with the brains, nature hath given it an exquisite feeling. The Cure consisteth in remedies universall and particular: universal, like as good dyet, abstaining from wine and all fumie drink, bleeding in the cephalick vein, if age permit; also using of glisters, or som gentle medicines according to the humor, as you have heard in Ophthalmia. As for particular remedies, they differ not much from others, except that we use no repercussives, neither any cold remedies, by reason of the nerve which is cold, deep, and hollow: if the dolour be vehement with heat, use oyl of Roses, Mirtills and Sidonium, and a little vinegar mixed all together, where of you shall drop a little in the eare. Quercitanus doth much allow Cats water distilled: if it tend to suppuration, handle it as other apostlumes.

Cause.

Signes.
Judgements.

Yong children dye of it.

Cure.
Gord. part 3.

Querset. opera medica.

Chap. XXIII. Of Ulcers in the Eares.

Definition.

The Ulcers which happen in the eares, are nothing but a solution of continuity, with matter purulent either externally or internally, accompanied with dolour, fever, and divers

divers other simptomes. The Cause of these humors doe proceed of a corroding sharp humor, stroks, falls, defluxion of humors, apostumes, or any other thing that hath the vertue to putrifie & corrode. The signes are manifest. Avicen, Rasis, and Arculeus do say, if either humor sanguinolent, fetide, or purulent matter issue out at the ear, it betokeneth some ulcer, grosse humor, or fistule to be there. The Cure doth first consist in good dyet, next in purging the ulcers: if there be ulcers, you shall distill in the ear, oyl of eggs, or distiled water of Allom: or this which I do use, take Leeks & boyl them in oyl till the third part be consumed, then strain them through a cloth, and instill it twice a day in the ear, let the patient lie on the sore side, so the matter will avoid the better. If with these ulcers there be purulency and rottennes, you shall instill juyce of Absynth, with a little honie or juice of Onions, Woodbine Bursa pastoris, oyl of Turpentine, or bitter Almonds: some use for this purpose, to instill the urine of a young child warme, it hath the vertue to drie up the humors in the eares; of tho e ulcers Gale. hath amply spoken. If there be wormes or sheepslice, as often happeneth in the ear, you shall instill juice of Absinth, Capers, or a little Scammonie with Winegar also juice of Absinth, Calaminth, Centory, or Figs; likewise a little wine wherein hath been boyled Marrubium. Some do use the gaule of an Oxe distilled in strong vinegar, and are laid hot in the ear, sternatories are also profitable. Rasis counsaileth for this purpose to instill in the eare succus mentastri, or folia persicorum, aut nuclea eorum, or a little Aloe dissolved with water or urine: this remedie doth not only kill these wormes and sheepslice, but also other little beasts which enter in the ear, or ingendereth in ulcers else-where. As touching that grosse humor or passage that doth stop the passage of the ear, you shall make a decoction of Camomill and Anethum, & receive the fume at the ear, by a pipe or instrument proper to that effect, or else instill juice of Rue or milk with a little Saffron: it happeneth oftentimes that those little wormes, sheep-

Cause.

Signes.

Cure.

Mez. de ægritud. oculorum.

Baccanel. li. 11

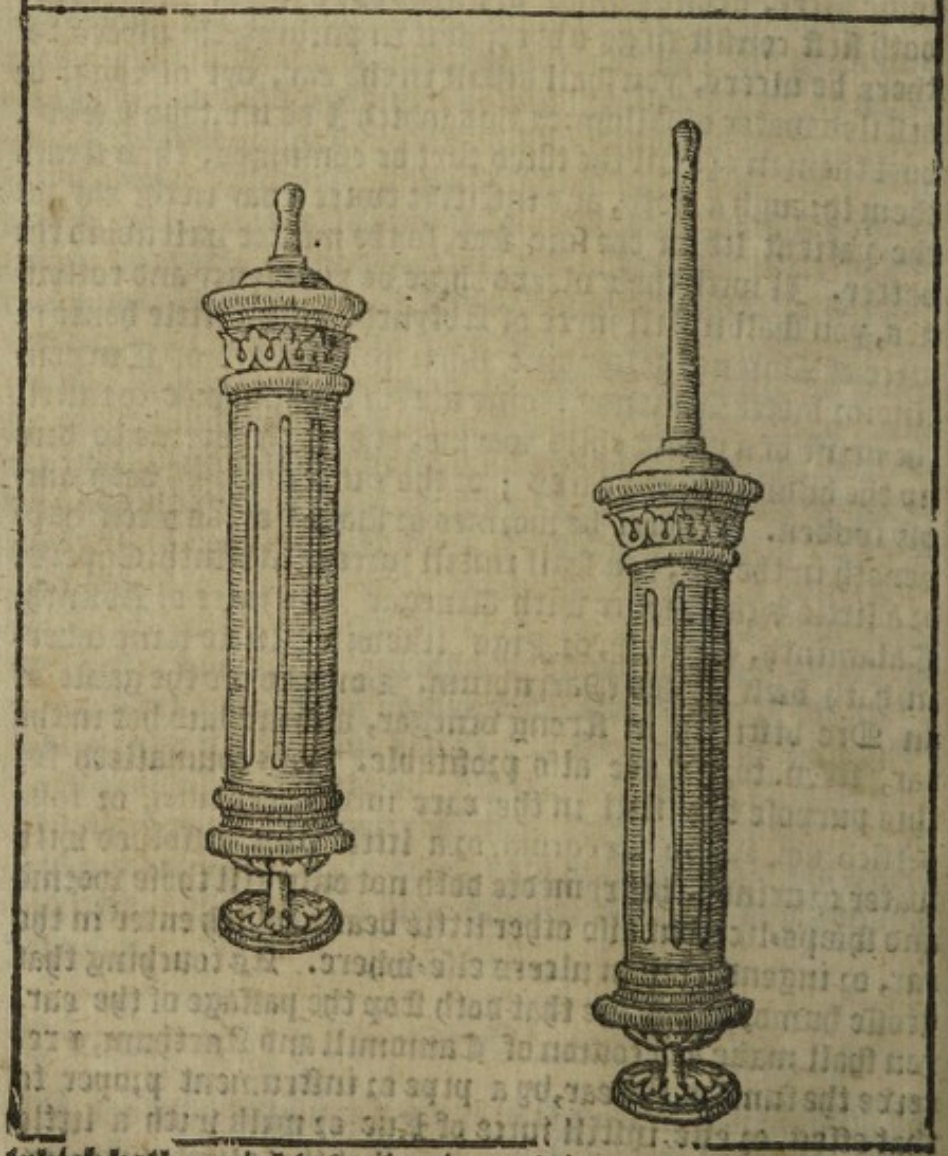
Petrus Hispanus.

Celf. li. 6. cap. 7. & 11.

Decoction for the passage of the ear.

sharpnesse, or grosse humors remaineth in the ear, through the debilitie of nature, or otherwise; for the which I dos use a Squirt or Syring of brasse or white yron called Pyncium,

Siringe, or Squirt for the eare, or hollow Woundes.



Gal. 2. ad glau. which hath a mighty vertue in drawing out of any thing that is

is inclosed in the eare, being properly made for that effect, as you see in this portraiture.

CHAPTER XXIIII.

Of the tumor which commeth behind the ear called *Parotides.*

LIke as in the muncioires of other noble parts of our body, nature hath likewise placed in the craige and roots of the eares, which are the muncioires of the brains, certain little kirnels or glands to receive that matter or vapour venomous deposed by the brains called Parotides, which is an inflamation or apostume, of the glands behind the eare. The cause doth proceed of the abundance of pure hot blood, and then it ingendereth flegme with vehement dolour, some time it doth proceed of abundance of cholerick blood, and it doth ingender Erefipelas: sometime it proceedeth of the melancholick blood, then the tumor is somewhat hard, not reddish without great pain: if it proceed of the pituitous humor, the tumor is somewhat pointed, white, not dolorous: sometime it doth proceed of an humor fallen from the head, because nature hath ordained those glands for that effect: as also because they are soft and cold, and the passages large, whereby the humor commeth: sometime the humor commeth from the whole body, like as in crisis of fevers: it may also proceed of any one of the four humors, or of all being mixed together. The Signes are tumor, dolour, vehement fever, pulsation, with such other signes, as you have heard in Tumors. The Judgements, those which come by crisis without signe of maturation are evill, & going to the internall parts for the most part is mortall as saith Avicen: sometime it doth vanish away, and passe with the excrements, as I once observed of a Gentleman in Paris called M. Buchir, who had a Parotide readie to be opened, the which in one night vanished away with the excrements, as was easily perceived, and the purulent matter seen with the matter se-

Celf li 6 ca. 16.

Definition.

Cause.

Tra. li. 3. ca. 10.

Pau lib. citato.

Langfrancus tract.

Avicen quarta tertii ca. 24.

Signes.

Judgements.

Cure.

call, and so becommeth whole. The Cure is first to use glisters, and bleeding in the vaine cephalick, remembring if it proceed of Crise of fever, you must not let blood in respect of weakneſſe and imbecilitie of the sick, by the sickneſſe precedent: good dyet must be observed, using things of good digestion and not vaporous, abstaining from all strong drink. The particular remedies differ not from the cure of other apostbumes, except that we use no repercussives nor refrigerants, but only maturatives; as this, take an handfull of Sowrucks, Lilie roots half an handfull, rost them within a peece of wet paper under the hot embers, then add unto them two yolks of eggs, some Hogs greaſe, and de althea, beat all together in a morter, and apply it warm to the sore upon a cloth: or this, take fine white flower two ounces, powder of Linseed, and Fennigreek, of each one ounce, Hogs greaſe 2 unc. figs half an unc. mix all with a little decoction of Mallowes, Althea, and flowers of Camomill, of all those make a Cataplasme and apply as the former. I often doe use in those tumors this which is maturative and anodine, and is made of the crums of white bread, infused with milk, Linseed, and Fennigreek, oyl of Lillies, Rose flowers, Camomill, and Melilot, of each so much as shall be expedient to make a plaister of good consistance, adding to it a little Saffron. If the tumor be slow in comming forth you shall use ventosies and medicaments, attractives and anodines, with some degerents in the beginning, like as oyl of Lillies, Iris, Camomill, bitter Almonds, and apply on the part, with sheeps wooll: it is not best to abide the perfect suppuration of this tumor, but so soon as may be, to open it and give it aire, by which means the humor or venomous vapour doth dissipate, so the dolour dissipateth & nature much dischargeth. It may be opened either with Cauter or Launcet, taking good heed of the nerve, vein, and arterie, whereof oftentimes commeth great accidents: after it be opened, you must use suppuratives, mundificatives, incarnatives, and desiccatives, as you have heard in the Tumors.

Rando. meth curando. morb.

Cataplasmes maturative.

Aetius serm. 6. ca. 89.

Ventosies to be applyed in tumors.

Dodoneus. Chelmeteus. cap. 24.

CHAP-

Chapter XXV.

¶ Of the Tumor in the Nose called *Sarcoma*, *Osena*, and *Polypus*.

The Nose is a part of the body, by the which the brains doe discharge the excrements; in it happeneth divers diseases, but chiefly three sorts, which doe not much differ one from another. The first is called Sarcoma, which is a tumor or excrescence of flesh against nature. The second is called Osena, which is a profound ulcer, evill savoured, and dangerous. The third is called Polypus, which differeth not from Sarcoma, save only that it is not so big. Polypus is a tumor or excrescence of flesh, which proceedeth of the bone Hethmoides, or that of the nose, and doth stick fast to it: it growe-eth by little and little, yet in time it becometh so great, that it filleth the whole conduit of the nose, sometime it hangeth down to the lip, hindring the sick to speak or breath: sometime it groweth behind in the hole where the ayre cometh to the nose, in such bignesse that it filleth and stoppeth the passage of the trahe artier, putting the sick in danger of suffocation. The cause is a corrupt thick viscous humor, which commeth from the head to the nose: Also wounds apostbumes, or ulcers, which are accompanied with a sharp bitter humor, and doe corrode the part where it is, and faketh root. The signes are manifest, as by the narration of the sick, accompanied with rottennesse, evill savoured, livid soloured, sometime hard, others soft. The judgements, That which is hard, black, dolourous, fetide, malignant, and cankerous, should not be touched, save only in applying medicaments, refrigeratives, desiccatives, and mitigaters of dolour, having the vertue to impash the growing of the disease, as in the Chap. of Cancer you have heard. That which is reddish and brownish with dolour, is difficile, and if it possesse both the sides of the nose, either the sick doth suf-

Constant *Africanus*.

Definition.

Paul. li 6. ca 36

Alb. li. 1. ca. 24. Rasis lib. 9. cap. 30.

Cause.

Haly Abbas lib. 9. Gal. de comp. medic. cap. 3. Brunus lib. 2. cap. 11.

Signes.

Judgements.

focate or sleepeth with open mouth. If the excrescence be soft and without dolour, and taken in the beginning, it may be cured. The cure is very difficile, as often I have experimented: and in the most part of those tumors, it were better to use such remedies as you have heard, than to adventure any cure. Always in such as you find tractables, you shall first use a good regiment tending to sobriety; next, universall remedies are to be followed, as purgations, bleeding, and rubbing of the head, with such things as have the vertue to corroborate the brains and drie the evill humor therein contained. The particular remedies shall be according to the tumor, which sometimes is hard, otherwhiles soft: such as is soft, white, and not dolorous, is taken away by instruments, as did some of our ancients most expert Chyrurgions, who did cut the Polypus all about at the root, saving alwaies the cartilage; thereafter with a proper instrument called by the Greeks Polytricon Pathcon, did pluck it forth at the root, and cureth it as other Ulcers. Others doe counsail to make incision in the cartilage of the nose; thereafter pluck it out by the root, which being done, if there remain any of the root, as often happeneth, it doth augment in such sort, that better it had been not to be medled with, than to consume that which doth remain: caustick powders may be used, like as flos æris and æs ustum mingled with a little hony, and applyed. Likewise melted Cauters, Arsenick, powder of Antimonie, Calcantum, Mercurie, Squama æris, oyle or powder of Nitrell, Atramentum, sutorium, strong water, and such like, in the which you may wet tents of Cotton, and apply with Hony or Unguent, Anodine, to such time that the excrescence be consumed, use alwaies desensives: for the inflamation, Unguent Pompholigos, with a little Balust is good. Some doe use to consume the excrescence with actuall Cauters, conveying it in with a Canule or hollow instrument, to save the other parts from the injurie of the hot iron: some of those practicks I have seen and assayed (but with small successe) except such as have been taken

Cure.

Fuxius lib. de meden morb.

Polytricon.

Langfrancus. Gnydo. Rogerus. Brunus.

Medicaments to consume the *Polypus.*

ken in the beginning, and not malignant: hereof my advise is, that you sent not such cures, but rather use such remedies as have the vertue to hold it back, with this water to wash it. *Rec. balustiorum corticis malorum granato an. lib. 1. galangæ, caudæ equinæ, linguæ passeriæ, herniariæ an. manipulos duos, radicis bistortæ unc. 4. contundantur & simul distillantur, & fiat aqua*; with the which you shall often wash the ulcer of the nose, if you should add to it a little Allom, it were the better: if either of those tumors degender in Cancer as often times happeneth, have your recourse to the chap. of Cancer.

Water for the *Polypus* and other ulcers in the nose.

Chapter XXVI.

¶ Of the fluxion of blood at the Nose.

Forasmuch as the blood is the treasure of life, so it is necessary if it flow excessively, that it be stayed by fit remedies, otherwise death ensueth. The Cause of this flux happeneth by opening of the mouth, of some vains in the nose which happeneth either by cause extern or intern. The externall cause is strokes, falls, vehement exercise, great heat, and such like. The cause intern proceedeth of too much blood, retention of the moneths, or by the acrimonie of the humor that floweth to those veins, which doth corrode them: also crisis of fevers, frensies, pluresies, apostehumes of the liver or splene, sometime the flux happeneth without the crise, as from the liver, splene, or matrice, debilitie of the vertue retentrix. The Signes are evident to the sight, besides if it happen through abundance of blood, there will be great pain in the head, redness in the eyes, much blood in the face; if it proceed from the liver or splene, you will know by the dolor of those parts, or from the matrix, you will know by retention of the moneths. The Judgements, if the flux proceed from the matrix, it will be difficile to cure, & if it flow much it is evill and dangerous, that Hydropsie will ensue: if it proceed by the debility of the brains, hardly doth it ever heal: if the colour of the blood be pale, livide, green, or brownish,

Cause.

Flux of blood at the Nose come of two causes.

Gord part. 3.

Signes.

Judgements.

Gualte. Brant.

it is for the most part mortall: if it happenneth with sincops or cold of the extreamities, it is also mortall; all flux which cometh suddenly and by violence, is evill. The Cure is first in good dyet, using such things as are of good juice and digestion, and have the vertue to cool and make thick blood: Next, if there be plenitude, and age permit, you shal open the vein cephalick of the arme opposite; next use frictions downward to the inferior parts, straight ligatours of the armes, thighs, testicles, and leggs, to divertise the blood; Also ventosies, with scarrification on the shoulders: If it flow from the right nosthrill, apply ventosies on the liver; if from the left, put the ventosie on the milt; if from both the passages of the nose, apply ventosies on both those parts: If it floweth in great aboundance, notwithstanding you shal let blood the cephalick vein on the same side, if strength permit: if it come from the matrix, you must provoke the monethly courses. The topicall remedies shall be in application of cold things to the head, temples, neck-vein, jugular, and other parts, from whence the cause doth proceed, which shall be made either of juice or distilled waters of Surucks, Lettice, Plantane, Bursa pastoris, Knot-grasse, Vinca per vinca, and such others of that qualitie, wet a linnen cloth in those waters or juices, and apply to the foresaid parts & testicles. The like may be don with vinegar; also you may put in the nose this remedy which I doe cōmonly use, that is made of Egg-shells, Breeth half an unc. Gauls two drams, Sanguis draconis, and Truboll, of each half an unc. hairs of the belly of an old Hare small cut a little, mix all those together with Vinegar, and whites of Eggs put on tents and put up in the nose; Also apply only upon the nose forehead, and testicles, with a double cloth that hath been wet in Vinegar: Also mans blood dryed in powder and put up into the nose, is very good: Or this, Take Truboll three drams, Draggon blood, Frankinsence, Alloes, Mastick, of each one dram, hairs of the belly of an old Hare small cut half a dram, put all those in small powder and blow up into the nose, & make a tent

Cure.

Open the vein cephalick.

Pau li 2 ca. 24

Pau loco citat.

Liquor to be applyed for bleeding of the nose.

Tra li 3. ca. 11.

tent of cotton to hold it in. The common people doe only use for all fluxes of blood at the nose, Hogs dirt put in cotton or a small linnen cloth applyed to the nose: Also the smoke of it received by the nose, is good. John Lebot approveth the hearb Bis malus or Agrimonia to hold in the hand on that side the blood floweth at. As also he counsaileth to write on the forehead of him that bleedeth (with his own blood) consummatum est. Hieronimus Cardanus, who hath more curiously than divinely written, doth counsail in great flux of blood, to pronounce these words following thrice over, *Sanguis mane in te sicut Christus fecit in se, Sanguis mane tu tua vena sicut Christus in sua Pœna. Sanguis mane fixus sicut Christus quando fuit crucifixus.* This form of cure by words I doe not alledge here so much for any effect I look shall ensue thereupon, as for to content a number of ignorant arrogant people, who neither will suffer pain, give leisure, or reward more expences for their health, but doe ignorantly upon presumption imagine that all diseases should be helped at their pleasure; To such people & to none other have I set down their remedies by words, which I hope in some measure shall satisfie them.

Joh. Lebot li. 1. of the country Farm.

Cardanus cureth by words.

CHAP. XXVII. Of the Lips and their diseases

THe Lips which the Greeks doe call Cheile, and the Latines Labra or Labia, are so called, as saith Isiodorus, a lambendo to lick. Constantinus saith, That the lipps doe beautifie the mouth, teeth, and gums, and doe help the forming of the voice, with divers other commodities, alwayes they are subject to divers diseases; yet for the present I am only mindfull to speak of three which are most common and may be helped, to wit, palenesse or lividitie, Fissures, reeds or hacks, with the cut or rawing lip, called the Hares lipp. The palenesse or lividitie hapneth oftentimes by fear or sodain commotion, which sodain passion retires the blood to the centure from whence it came; which being past, and the

Isiodorus. Constantinus. Gal. li 11 de usu partium.

The lips beautify the mouth.

blood setled, the lipps return to their own naturall. It happeneth also of the disease which is incident to women, called the pale colours, and must be cured by purgations, baths, decoctions, sirups, apereticks, and such others as shall be devised by the skilfull Physitian: Somtime it doth proceed from the mouth of the stomack, by the great communication which is betwixt the stomack and lipps by a membrain, as may be perceived by the trembling of the lipps in the time of vomiting: That sort of paleneſſe is helped by rubbing of it gently with a peece of Sheeps-skin that hath been dyed red. Or this, Take red sandals contused and steeped three dayes in Aquavite or strong Vinegar, boyl them all on a soking fire an hour, with a little Allom and gumme of Arabick, then pass it and rubb the lipps therewith; Some for this purpose doe use the rid of Spain: there be divers other remedies set down for this purpose by Lodo. The hacks or ridds of the lipps, is a solution of continuity in the tender flesh of the lipp, which doth happen by causes extern and intern. The externs are hurts, cold, great heat, wind, dust, and such like. The internall cause is a sharp salt humor that commeth from the brains, and corroseth the part: somtimes it happeneth by crise of fevers ascending from the stomack, liver, or all the body. The Cure, if it proceed of heat, you shall rub the Ulcer with oyl of Roses, Violets, Capons grease, Mussilages of Dragagant, extracted in Rose-water, and annoynt the part: Or take gum of Dragagant, gum Arabick, Mastick, tempered with hony of Roses and annoynt the part. If the cause be intern, purge the body, and let blood the vein of the lipp, thereafter annoynt the part with whites of Eggs and powder of Mastick: Also oyle of Mar or of Eggs: Or this pomade thus made, Take half a pound of Harts or Goats grease, one ounce of Hoggs grease, wash them well in white wine, thereafter exprime the grease from the womb, then put to it one grain of Nardin, four drammes of Cloves in fine powder, Nutmegs half a dramm, two fine apples half contused, infuse all

Cause of paleness in the lips.

Cure for the paleness of the lipps.

Cause and cure of hacked lips.

Gard. part. 3. cap. 13.

all in Roſewater a whol day, then boyl all in an earthen pot, and ſtirr it about with a ſpæl of wood, untill ſuch time that the Roſe-water be exhaled, then ſtrain it through a ſtrong cloth, and add unto it one ounce of oyl of ſwæt Almonds, with an ounce of white Wax, then melt all on the fire, then retire it and let it harden, thereafter wash it with Roſe or Damask water if you would adde unto it ſome red Corall or Cinabir well beaten on a marble ſtone, it will be more drying, and also give it a reddish colour. I have often used in those hackes, as also those of the hands or other parts, unguent Roſes Mezue, with a little Ceruſe, Camphier, Allom, or a little of the ſæd of Juſqueam in powder, or any one of those, or a little of each one mixed with the Unguent will ſuffice, being rubbed on three or four times a day.

Pomade for hacked or ſore lipps.

Unguent for hacked lipps.

CHAPTER XXVIII.

¶ Of the Hareſhaw, or Cloven Lipp, called the *Hares Lipp.*

THe Hare-ſhaw, is a defectuoſitie of nature, which happeneth either by nature, or accident in the Lip, Ear, or Noſe: they, or either of them are ſometimes found cloven, or they come in the world: It is ſomtime little, otherwhiles ſo bigg, that you would imagine a peece taken out of it. Such as are little cloven may be cured: if they be much rent, hardly do they receive any cure: ſuch as are in old people, & of evil habitude, are very hardly cured. The Cure, it being either by nature or accident, nothing can be added to it, but may be joyned together by a ſuter incarnative, as you ſhall hear in the generall Chapter of wounds. The form of the cure is this, firſt purge the body if the perſon be of age, then dyet the patient the night before; next, place him in a light part, then with your left hand lift up the one ſide of the lip: then with a ſharp

Definition.

Judgements.

Cure.

Celſ. li. 7. cap. 9.

How to cure the Hareſhaw.

ſharp biſtory or launced curbe, cut the outward skinn till you come to the middeſt of the ſent, which being done, you ſhall lift up the other ſide of the lip and doe the like, ſo both ſides ſhall be altogether like unto a great wound, let them bleed a little to diſcharge the part and avoyd inflamation, which being done, joyn the ſides together ſo juſtly as you can, then thruſt a needle through both the parts of the lipp, taking a reaſonable gripe, letting there the needle remain: then turn the thread about it after the form you ſee aged women or Taylors doe, when they keep the needle on their breaſt.

A needle to be uſed for the Hare-ſhaw.

Portraiture

If the Needle be too long, cut the end of it with Tenals incisives: if the cleft be long, you may thrust two Needles one above another: if by those means the sent doth not joyn together, but be too straight, in that case you shall in each side a little from the sent, make a little incision circular in the outward skin, in form of an half moon, so the sides shall joyn

more

more easily: beware in using any violence, for the which you must consider before the operation, if the fenth be so larg that it cannot joyn easily, it must not be stretched to joyn, least you make a greater deformitie, besides it will be an hinderance to the speech: the needle passed as is said, you shall put upon the wound an astringent, with compres in orcerate the emplaster of Betonica or such like: it doth commonly conglutinate in 8 or 10 dayes, after the which time cut out the thread & pluck out the needle, correct the superfluous flesh if any be, and induce the siccatrice. As touching the incisions which are made in form of an half moon, handle them as simple wounds in the flesh. And as touching Clifts or Fenths in the eares or nose, they be handled after the same form.

Astringent for the Harcshaw.

CHAP. XXIX. *Of the mouth, tooth, and tooth-ach.*

Gal. li 3 & 11 de usu partiũ

Isidorus.

Gregorie.

THe Mouth, which is called in Greek Stoma, and in Latine Os, is scituated neer the brains, like as all the instruments sensitives: it is the instrument of crying in beasts, and speaking in men, and is called by Isidorus the messenger of the soul, for wee speak by the mouth that which before wee conceive in soul and thought. Gregorie sayth, that the mouth hath many keepers, to the end the soul and wit may deem and advise first what to speak, before any thing be spoken: it serveth for many uses, and in it is contained many notable parts, but here I will only touch such as I am mindfull to entreat of, like as the teeth, gummes, tongue, Uvula clap, or pap, Amygdals, beginning at the teeth, called by the Greeks Odontes, and in Latine Dentes, which are of the number of bones, and be in number thirty and two, to wit, eight called Incisores, because they cut the meat we eat, then followeth the four called Canini, for the similitude they have with hounds teeth: they be sharp and round pointed, and break the hard meat which the incisors cannot cut: the third sort is called Molares, and are in number twentie, & in some fewer, they doe grinde the meat after

Gal li. de ossib & 11. de usu partium.

after it be broken by the other teeth, and serve for decoring the mouth, chew the meat, help the speech and pronounciation: Also by them we may prognosticate long or short life, as witnesseth Hippocrates in his Presages: and they be subject to divers passions and diseases, as dolour, corruption, perforation, cave or holed, and divers others, as you shall hear at length in the chapter following. As touching the tooth-ach, or dolour of the teeth, I am not of opinion with som of our ancients, who thought the teeth to endure any dolour being a bone, and no bone hath any feeling. Aristotle saith, that neither bones or nails have any feeling, they being a terrestrious matter: that dolour which grieves us, is at the root of the tooth, either in the nerve or ligament which cometh to it, and is most cruel of all pains. Galen saith, amongst all maladies and passions which are not mortall, that of the teeth is most painfull unto man, for the proximity and communication that the nerve hath with the brains and membrains: thereof some have been of opinion, that there are worms which doe engender in the teeth, and cause great pain, perswading the cōmon people to the same: by which opinion the cōmon Barber Chyrurgions doe commit great errour in plucking out of innumerable teeth which might well serve. There are no worms that procure this dolour, but only corrosion of the nerve by the acrimonie of the humor, as may be perceived after the tooth is plucked out and broken, the end of the nerve which is inserted in it, is corroded a growing red, which nerve is subtil and delicate, that you would think it to move. We see divers who have their teeth almost all consumed without any pain, others having only a little hole in the side of the teeth, have intollerable pain, which cometh by the humor that corrodeth the nerve. The Cause of the tooth-ach is externall and internall: externall is falls, hurts, great heat, cold, breaking of hard things, and too much curiosity in rubbing the gumms, and taking away the flesh at the root of the teeth; as also in being too negligent in cleansing the teeth after meat, so the filth remaineth

Hippo. in his Presages.

Arist. 1. & 3. *de anima.*

Cels li 6. *cap* 9.

Worms are not ingendered in the teeth.

Rando. meth. curand. morb.

Cause.

and

and doth putrifie and corrode. The cause intern proceeds of humors, which having acrimonie and qualitie maligne, that commeth from the head, as happeneth in Megrams, which humor doth flow to the gumms and roots of the teeth; Also rotten sharp vapours ascending from the stomack, and maketh corrosion of the teeth and nerve, by the which ensueth extream pain; it may also proceed of any of the four humors: aged people which are much subject to defluxions of the lights or brains, are much subject thereunto. The signes are evident, and may be known by the patient and assisters, as also by the cause; for if the humor doe proceed from the head or gumms to the nerve, there will be great dolour and heavinesse in the head, continuall rhume falling on the part, with great evacuation of flegme. If it be of vapours which ascend from the stomack, there will be great heavinesse and dolour in the part: if the cause proceed of the four humors, or either of them, as sometimes happeneth, there will be redness, heat, corrosion, punction, hardness, paleness, with great spitting. The judgements, if the dolour of the teeth proceed from the gums, the dolour is not removed by pluckiug forth of the tooth: if the pain proceed from the nerve or ligament, by removing of the tooth the pain ceaseth, by reason the matter which did corrode the nerve, was retained by the tooth, and could not easily passe away: if the the tooth be pale & black in fevers, it is an evill signe: if aride and dry like a peece of wood in hot fevers, it is mortall. The cure consisteth in generall and particular remedies. The general shall first be in the form of dyet, eschewing all things which may provoke great heat or great cold, for they are both hurtfull: abstain from all sharp, soure, sweet, viscous, and vaporous things, and also milk: you shall use things of easie digestion, abstaining from all exercise that may impash the same: nert, if there be plenitude of humors, purge the body, especially the head: if the evill proceed of heat and plenitude of blood, take blood of the cephalick vein, and apply ventosies on the shoulders with scarrification, open the Ranules under

Gal. de compo med. per locos cap. 4.

Signes.

Gal de compo-medi &c.

Judgements.

Hip. 4. aph 53.

Hippo. in his Presages.

Cure.

der

der the tongue, that of the lips, and rip the root of the teeth, for that doth discharge the part. The particular remedies shall be according to the cause, as if it proceed of an hot humor, you shall retain it in your mouth and wash it in Vinegar, wherein hath been boyled Juliqueam, Mandragar, heads of Poppie, Lettice, and Endive, anoynt externally with oyl of Roses, Poppie, Mandragor, apply to the sore tooth 1 dram of Oppium dissolved with oyl of Roses, or Phylonium perficum: if it proceed of a cold humor, you shall wash your mouth and teeth with warm wine, wherein hath been boyled Sage, Betonie, Mint, Pariter, Calaminth, Fennell, Marrubium, and Tormentill, annoynt outwardly with oyl of Cammomill, Laurell, Lillies, Ginnaper, and Rue, apply a little plaister of Mastick or Gumme, alemny on the arterie of the temples, to intercept the humor, you shall also chew in your mouth a little of the root of Angelica, or a clove of Girufell, & put a little of either of those to the tooth. I doe use in those dolours, to apply externally the crummes of white bread boyled with milk, yolks of egges, and fresh butter, adding thereto some Saffron, oyl of Camomill, and Lillies, apply it warm betwixt two linnen clothes upon the swelling or sore; divers other anodine cataplasmos and plaisters may be used for this purpose.

Johannes Serapionis.

Pa.li.3.cap.26

Annoynt the tooth outwardly.

CHAPTER XXX.

¶ Of the corruped and hollow tooth, and the way to cure it.

The tooth as I have sayd, is subject to divers passions and grieses, wherein the hand of the skill Chyrurgion is required: like as corruption, perforation, holed, cavernous, gnashing or grinding, trembling, stupiditie, lividity, or blacknes, and unstable, for the cure whereof you shall hear familiar remedies in few words. The Cause of corruption which happeneth in the teeth you have heard in the last

Tra.li.3.ca.13.

Cause.

Cure.

last Chapter. The Cure of corruption or perforation is, first in the form of dyet, abstaining from milk, green fruit, all hard things, vomiting, and things of evill digestion: wash the mouth and corrupt tooth with Claret wine, wherein hath been boyled a little Tormentill, and Barrubium, next touch the part corrupt with a little Aqua vite that is well rectified, strong water or oyl of Nitreoll, Sage, Cloves, Sope, a little Cotton in either of those, and apply to the corrupt or hollow tooth; beware the caustick oyl touch no other part: if by applying of either of these things you profit not, you must use the actuall Cauter or hot yron, made according to the proportion of the corrupt part, for great personages we make those Cauters of gold or silver, and apply burning hot, as the other, to the corrupt & hollow part: somtimes the corruption is in the side of the tooth, which by time might be corrupt: in that case you shall file away that which is spoyled, so the remanent shall serve for your use, the file is used in such teeth as are more eminent than others, also in broken teeth which doe hurt the tongue and lips: by using of those remedies, the corruption and pain ceaseth, except alwayes the tooth be so corrupt, that the nerve be corroded; and if so be, the best way is to pluck out the tooth, like as many now doe, who doe but unskillfully and ignorantly, for every small dolour or griefe, ever perswading and affirming that to be the most sure and soveraign remedy, and oftentimes, which is worst, they pluck out one or two of the whole teeth and leave the corrupt, as I have somtime seene by the unskilfull handling of that instrument which is made with three branches called the Polycan:

Oyles and Liquors for the corrupt tooth.

Albuc. lib. 1. cap. 21. & 22.

Error by the Polycan.

Instruments

Instruments to pull out, cutt, and file superfluous teeth.

Whereby often ensueth such flux of blood, that some have dyed, or at least very difficile to be stayed: such ignorants differ much from the opinion of our ancients, who did so estæm of their tæth, that they never drew them untill they were very lose, and almost fallen of themselves. In witnes wherof, I have read that in the Temple of Apollo there

was

was a Turkisse or Davier to pluck out teeth, made of lead, shewing us that the teeth should not be plucked out til they be very lose and almost wasted: but if the teeth be outwardly corrupted, and the nerve corroded with extream pain, that hardly it may be suffred by any; in that case (all other remedies set a part) it must be removed after this maner: first situate the diseased in a convenient place, in such sort that he may be lower than the Chyrurgion, then separat the flesh from the root of the tooth so deep as you may, then the Chyrurgyon shal with the Turkisse or Davier gripe the tooth so neer the root as may be, taking heed neither to gripe over hard, nor incline the Davier too much, least he either break the tooth, or jaw where it is fixed: pluck not with great violence, nor at one pluck, least you make dislocation of ye mandible, or trouble the eares and temples: if the tooth be hollow or brittle you shal put a peece of linnen cloth or thin lead betwixt the Davier and tooth, in so doing you shall preserve the tooth from breaking: such teeth as may not be handled with the Turkisse, you must use a Pufar to thrust it in towards ye mouth or the polican: the tooth being drawn, you must close the wound with your finger and thombe, then wash it with Drecrate and a little salt: if there be flux of blood, you shall apply a little astringent powder upon Cotton, and put in the hole, or Cotton that hath been wet in juice of Lymons. It happeneth oftentimes that divers of the teeth are loosned & fallen out, either by strokes, falles, or defluxion of humors from the head, with great deformity, impeding the pronomciation of the speech: for remedie wherof we make artificiall teeth of Ivory, Whales bone or hounds teeth, which shall be fastened by a wyre or thread of gold, passing the wyre or thread betwixt ye whol teeth on either side next adjacent, then put the artificiall tooth in the part, then knit the thread fast through about the ends of the thread, and cut it so neer as you can if any portion rest uncut, passe it betwixt the whole tooth, that the tongue or lippes be not hurt by it. I am not mindfull to insist in this practick as I might, because it is seldome

Mesues de egritud. dent.

Paul. li. 6. ca 8

Celsus li 7 ca 12

Aetius lib. 2 cap 33

The artificiall tooth.

seldome practised. It happeneth sometimes that two teeth doe spring from one root, which is a great deformitie, and often offends the tongue within, or the lips, sometime one tooth is longer than the rest: for the cure of both, you shall cut them with Tenals incisives made purposely for that use: sometime the teeth doe gnash and grinde by repletion of humors from the head, debility of the nerves which moveth ye chaftes, by worms in the stomack, or intestines, or rotten humor in the stomack, for the which purge the stomack and head, rubb the neck behinde with the oyl of Aspicke, and Camomill: the teeth sometime doe tremble, chiefly the incisors which hath but one root. The Cause proceedeth of over-great flure of humiditie which falleth on the gums, as happeneth sometime to such as doe sweat of the French sicknesse, in the which the teeth not only trembling, but often fall out: for the remedy whereof, medicaments, astringents, & drying must be used, such as Allom, Nuts of Cyprus, roots of Bistort, red Roses, and such like, of the which you may make a decoction: also water wherin hot steel hath been quenched, called Aqua ferrata, rub the gumms and roots of the teeth therewith: you may also for this purpose use a little Allom water, or a little Salt that hath been melted in the mouth: these things doe drie up the humiditie, but you must beware in using over-drie and astringent things, and such as doe break the teeth, as Nutgals, Pomgranats, and other of like quality. Sometime there happeneth a stupidity in the teeth, which doe proceed of some astringent or sharp humor, either at the roots of the teeth ascending from the stomack: it happeneth also by imagination or apprehension, as when the sick seeth another eat sower fruit, or any thing that is sower or sharp tasted: for remedie whereof, keep warm wine in the mouth with decoction of it, or with milk; eat Almonds, and rub the teeth with kirnels of common Nuts.

Paul li 3 ca. 26.

Alphon. ferreus Neopolitanus.

Paul loco. citat

CHAPTER XXXI.

¶ Shewing the way to helpe the mouldy, black, hollow, or evill savoured tooth.

THe toth groweth black, mouldy, hollowe, and evil favoured, either by rotten humors fallen from the brains, vapours ascending from the stomack, by receiving the fume or vapour of quick-silver, sleeping with open mouth, or by not cleansing the mouth, tongue, teeth, halse, and breast; in the morning, by spitting out of that which was collected in the night: For remedy wherof, you shall with a proper instrument of iron, rase and rub away such scurffes, mouldinesse and filth which is about the teeth, thereafter wash the mouth and teeth within with wine wherein hath been boyled red Roses and Marrubium, then dry them wel with a cloth: then to make them white, you must use sharp drying things which have a virtue detersive, for the which I do use the oyle of Nitreoll, Sulphure, strong water which the gold smiths do use, wet a little stick like a Goose-quil in either of those liquors, and rub the teeth therwith twice or thrice, and they will become white, beware in touching the flesh about the roots of the teeth, for these liquors doe corrode the flesh: this being done, rub them with Rose-water, the roots of Aristoloctria rotunda, or Althea: if you like rather other remedies than chimical oyles, use either of these following: Take the roots of Aristoloctria rotunda, and burn it with a little Harts-horn, Mastick, Salt, and some honey, wrap them within Sage-leaves, and burne them to ashes, put all in fine powder and rub the teeth therwith, otherwise take white Corall, Marble and burnt Salt, of ech 2 drams, Cloves 1 dram, make of these a fine powder to rub the teeth. Or this, take the bone of Fish, Harts-horn and Barley flower, of ech 3 drams, Isop, *Averonzie*, *Aristoloctria*, of ech 2 drams, shells of Oysters and Egs burnt, of ech 1 dram, put these in fine powder, and use

Cure.

Liquors to make white teeth.

Mesues de agitud dent

Pa li 3 cap. 26

use as the former, or this which I doe ever use: Take white bread, Corall, Harts-horne, of each one dimid. unc. allom 1 dram, Sage, and Roses of each one halfe a handfull, Oyster and Egge shelles, of each one two handfuls: put all in fine powder, and use it for the teeth: or this, Take two ounces of the powder made of cannall, cloves and mace, of each one dim. drag. Calaminth, Aromaticke, corse of Cytron, and grons of Florens, of each two scruple: incorporate all with fine honey and vinegar, and make a past in forme of an Oppiate to rubbe the teeth morninge and evening, then wash the teeth with claret wine, and rub them with a peece of fine Scarlet that hath beene dyed in graine, and wet in Vinegar Squiliticke, or this, *Rec. Corallorum, Rubrorum, Bole Armenici, Thuris, Margaritarum, Sanguis Draconis, Corticis Cancrorum, ana pugil.* 1. *Misce & fiat pulvis.* Or this, *Rec. Corallorum Rubrorum, Ossium Dactylorum, Pumicis, Ossium cepiæ, salis usti; ana, quantum sufficit:* or this, which was used by Messilina Augusta, prescribed by Scribonius Largus. *Rec. Cornuum Cervi ustorum in ollam novam ad cinerem redactorum, unc.* 1. *Masticis, unc.* 1. *Salis Armoniaci, 6. Drach. Fiat Pulvis:* Also this Lavement which comforteth the Brains, fortifieth the teeth, and maketh the mouth smell well; first you shall wash the mouth with Vinegar, or Wine, wherein hath beene boyled Annisedes and Cloves, then rub the teeth with the leaves of Sage, shell the skins of Citron, and make a subtle powder of Cloves, Nutmegs, and juice of Florens and rub the teeth: or this, which is most good for comforting the head, making the breath sweet, purgeth the gums, and rootes of the teeth, take Vinegar, Squiliticke, well water, or fountaine water, dim. English pint, Rose water, Masticke, Bol armenici, Dragon blood, and burnt Allom, of each dim. ounce, Cynamon, 4 dram. mixe and boyle all at one soking fire, a quarter of an houre, adding thereunto 4. ounces of purified honey, make a decoction to rubbe and wash the gummes before and after meate: the Vinegar

Fumavellus.

Bairus.

Messilina Augusta.

Squiliticke is good for the teeth and gums, it hath a mightie vertue to comfort the teeth, and tye the gummes: sometime there happeneth holes in the teeth without pain, and yet unseemly, being commonly blacke and filled with filth, which maketh evill smell: for remedy whereof, you shall take burnt Allom, Myrrh, and Masticke, of each dimid. drag. incorporate all with white Virgin war, and fill up the hole, or corroded part, the which you may take out, or put in at your pleasure. Those be the most common remedies which I have ordinarily used and seene practised, so it may suffice in this place, by reason I am to intreate further in my Booke of the Infantment; besides, there be infinite good remedies set downe for this purpose by Vicerus Rundoletius, Alexis Bairus, Fumanellus, and divers others, whose helpes the skilfull Chyrurgion may use.

CHAPTER XXXII.

¶ Of the superfluous flesh, which happeneth at the root of the teeth, called *Epaulis* and *Paraulis*.

Definition. *Paulis 6 ca 27 Bacca lib 2. de Consen. Med*

EPaulis, is thought by our Ancients to be a tumor, or excrescense of flesh, that cõmeth at the roote of the teeth, chiefly betweene the Molares, it doth augment by little and little, and augmenteth sometimes to the bignesse of a henns egge, accompanied with fever and dolour: the cause proceedeth, of a sanguine, cholericke, or a sharpe biting humor, which commeth from the head, also evill rotten vapours ascending from the stomacke, and corrodes: the Gummes as happeneth after rotten fevers, or evill ulcers in the mouth chiefly, of such, who have not beene well cured of the French sicknesse.

Cause.

Signes.

The Signes are manifest to the sight, accompanied with

with feber and dolour, as faith Avicen.

The Judgements, It groweth to fuch greatneffe, that oftentimes it putteth the teeth out of their owne place, fometimes it poffeffeth both the jawes in fuch fort, that the ficke can neither open nor clofe his mouth, fometimes it is dolorous, blacke, hard, and skirrous, and in that cafe you muft beware to irritate, or ufe cauftricke remedies, but onely medicaments, refrigeratives, deficcatives, and mittigatives of paine, as you have heard in the Chapter of Schirre, Judgements. *Paulus lib. 6. cap. 27.*

The Cure conftifteth firft in the evacuation of the evill, fharpe and rotten humor, then ufe deficcatives, and difcutients, in the which if you profit not, you muft apply cauftricke powders too, to confume the fuperfluous flefh: If it neither diffolve, nor can be confumed with powders, you fhall ufe incifion: if the excrefcence be foft and tractable, cut away the moft part of it, and confume the reft of it with powders, and produce the cicatrice with fuch gargarifis as you fhall heare in the Chapter of Ulcers in the mouth: if it be very bigge, and may not be taken away at the root, yee fhall knit the excrefcence with a ftrong thread, then tye it faster and faster every day, untill fuch time it be cut, and fall away of it felfe. I have found this Ligature more, fure then cutting, neither fo much to be feared, for flux of blood, or inflammation: that which doth remaine after the fall of the thread, you fhall confume with powder of Mercurie, allom, Nitreoll, and fuch like: If it be refidue, as oft happeneth, you fhall knit it at the root as before, and cauterize it with actuall cauter, oyle of Nitreoll water of feparation ufed by the Gold-smithes, and fuch others of that nature. As touching Paraulis, it is an inflammation in fome part of the gummes: for the which you muft ufe difcutients, and if it diffolve not, but commeth to fuppuration, it muft be opened with diligence, for feare the gummes be corrupt, which if it fo happen, touch the corrupt part gently with oyle of Nitreol, or ftrong water Cure. *Albuc. lib 2. cap 28.* *Paraulis. Ætius ferm 8. cap. 24. Gal. 6. de comp. m d. cap. 1. Avicen. lib 3. cap. 1.*

ter. The form of the opening must be with a Bistory curb, making the overture reasonable bigg, thereafter wash the mouth with Claret wine, wherein hath been sodden Barrubium, then stay the flux of blood by such means as you hav heard in the Chapter of corrupt Teeth, cleansed with Hony of Roses, strong wine, and Sarcacolla use Gargarises, Detersives, add Desiccatives, as you shal hear in the next Chapter.

Chapter XXXIII.

¶ Of Pustules and Ulcers in the mouth.

Definition. *Gal. 6. Meth. cap. 4.*

Those Pustules and Ulcers which oftentimes possesse the upper part of the mouth and gums, are namee by the Greeks *Apthe.* and by Avicen *Altolla*, in vulgar the Water Canker, and are of a white fiery quality, for the most part incident to young Children, sometime to those of elder age.

Cause. *Galen loco citato. Avicen sexta tertii cap. 23.*

They doe proceed either of corruption or acrimonie of the milk which the child cannot digest; Also by corruption of humors in the Nurse. It happeneth to those of elder age, through abounddance of vicious corrupt humors which flow to the mouth; also by the acrimonie and bitternesse of the nourishment which we eate and drink.

Signes. *Aetius sect. 8 cap. 39.* Judgements. *Pa. li. 1. cap. 10*

The Signes are evident to the sight, and are known by the colour. Those which doe proceed of blood, the colour is red, hot, the part tumified; if it proceed of Flegm, the colour is white, with little dolour; if of choller, it is jawnish coloured, with som tumor, punction, and heat; if of Melancholie, the colour appeareth blackish, which is worst of all: thos which be black and scurffie like the crust of bread, it sheweth great corruption and adustion of humors, very dangerous, and for the most part deadly: those which be red or white, are not malignant: such as are superficial, are easily cured, those which penitrat more profunditie, are difficile.

The

The Cure consisteth in evacuating the evill humors which is the cause, then prescribe a diyet to the Nurse that is colde and humide, to correct the acrimonie of the milke, causing her to use such things as the childe cannot take, which shall be done by the advice of the skillfull Physition, rub the childes mouth with juice of Lettice: If those Ulcers be very humide, take Myrrhe, nutgals, the barke of Incense, bruise all well together with a little redde Roses, and annoynt those Ulcers: or else wash them with Wine, and a little powder of Galls, barke of Granads, and a little Allom: If the Ulcers be white, take Myrrhe and Saffron, of each one drag. white Succorie two drag. beate all and apply on the Ulcers: If the Ulcere be blacke, touch them with a little Rose-water, wherein hath beene dissolved a little Eye-Copris, called *Calcanthum*: for these Ulcers I doe commonly use a Lavement which is made of Sage, Isop, Woodbine, Pimpernell, *Bursa Pastoris*, and Myrtle leaves of each halfe a handfull, boyle all in running water, adding thereto honey of Roses, and boyle it till halfe be consumed, putting thereto a little Diamoron, wash and rubbe the childes mouth twice or thrice a day therewith. I doe also use sometime for this purpose Plantine water, Sirupe of Roses, with a little Romaine Vitreoll, and annoynt the Ulcers gently therewith, with a small linnen cloth, or a peece of Scarlet, twice or thrice a day, with such other remedies as you shall heare in my Booke of Young Children.

Cure. *Leonel. Faven. de medendis morbis.* *Mesues de ægritud. Oris.*

As for the Cure of those in elder age, after purgation be used according to the humor which demanes, you must let blood in the cephalicke vaine, those of the tongue and under the lips, Ventosses on the shoulders, and Gargarises, such as this, take an handfull of Barbarie, Plantine, *Bursa Pastoris*, Roses, Violet, Chesbow, of each a certaine quantitie, boyle all in water till the halfe be consumed, add to it honey of roses, or sirupe of roses, with a little allom. If there be putrefaction, ad a little *Calcanthum*, or *Ægyptiack*; otherwise, use

Cure.

use this, Take decoction of Barley, Pimpernell, Plantane, Agrimonie, or Roses, of each foure ounces, make a decoction, in the which you shall dissolve honie of Roses, and Diamoron, of each half an unc. wash the Mouth and Ulcers therewith: the Ulcers then being so cleansed, wash them with stilled water, Plantane, or some Rose water, and Allom mingled together, with those wash the Mouth twice or thrice a day by which meanes they will cicatrice and heale.

¶ Of the deseases and passions which befal the Tongue.

Definition. THe Tongue, which is called by the Greekes *Glotta*, in Latine *Lingua*, is the instrument of speaking and tasting, as sayth Constantine, It is composed of an hollow and spungious flesh, to the end the savour & smell may passe and come the easier to the nerves, which make the taste. It hath divers nerves for feeling and moving with divers vaines and artiers full of blood, for which it is red coloured, and serveth for divers uses; as also subiect to divers passions, as Tumors, inflamation, Ulcers, Apostbumes. Pruritis, difficultie of speech, called *Difficultas loquendi* by the Latines, and by the Greekes *Mogilalos*, lisping in speech, called by the Latines *Blesitas* and by the Greeks *Traulotis*, which is when one cannot pronounce certaine Letters in speaking, as R. and T. Panting called by the Latines *Balbuties*, and by the Greekes *Psellos*: which is, when one cannot pronounce the words, except they omit some syllables. *Hæsitantia linguæ* called *Isenophania* in Greeke, is when one cannot conjoyne and assemble the words together: as for *Ranula*, you shall heare in the next Chapter; Ulcers you have heard: as for the Cure of the rest you shall heare in the Treatise intituled The poor mans Guide. Heare I am onely mindfull to speake of those two which are most common and difficile to be suffered, to wit, the retraction or shortning of

Constantine.

Gal. lib. 11. de usu partium.

Glen 4 de sum.

of the tongue called the *Phylit*, and the tumor or excrescence under the root of the tongue called *Ranunculus*. The retraction or tying of the tongue, called by the Latines *Ligatio* or *Abbreviatio linguæ*, and by the Greekes *Antydoglosson*, is when the ligament membranous of the tongue is shorter then it should be, either impeding the speech or pronunciation; the which happeneth by nature or by accident. By Nature as we see in young children; by accident as happeneth in wounds ulcers, or hard Ciccatrices, in those parts: that which happeneth by nature, divers learned men have diversly practised for the help thereof; amongst the which Avicen is of opinion to passe the needle and a strong thread, under the sinowe or ligatour membranous or hard ciccatrice, then tye it harder every day till it fall off it self, as you have heard in the Chapter of *Paraulis*. Langfrancus counsaileth to cauterize it with an actuall cauter, which opinion hath beene followed by some. Although I doe not approve it, but have ever followed the opinion of Albucasis, which is first to situate the childe commodiously, then cause one to holde open his mouth lifting up his tongue, with the finger of your left hand, then cause one to holde his finger by the other side or root of the tongue, so you shall see perfectly the ligament, then with your Historie, or sharpe Sissers make your incision overthwart the ligament membranous, in such sort, that the tongue be made free to move voluntarily, then rubbe it gently with a little Rose water every day twice or thrice as shall be expedient, passe your finger softly upon the wound with a little honey or strupe of dry Roses, that it grow not together againe: if your retraction procede of ciccatrice, make your incision more large, and consume the hardnesse of the ciccatrice, then hold a roll of fine small cloath fast in the wound for certaine dayes, the which may be wet in honey or strupe of Rose, that it doe not consolidate over soon; if there happen flux of blood, as I have often seene, you shall use such remedies as is set downe in the Chapter of corrupt Teeth.

Pau. lib 6. cap 29.
Cels. li 7 ca. 12
Aviten.
Langfrancus.
Alb. li 2 ca. 34.

CHAP-

CHAPTER XXXV.

¶ Of the tumor under the tongue, called *Batrachus* in Geek, and *Ranunculus* in Latine.

Definition. *Paulus lib. 3. cap. 26. Albuc. lib. 2. cap. 35. Aetius serm 8 cap. 37. Avicen.*

RAnunculus is a tumor on the vaines under the tongue, or an excrescence of flesh which impedeth the naturall operation of the speech: it groweth sometime to such bignesse that you would think it another tongue, it hapneth to young Children, as also to those of elder age, in such sort, that the voyce sometime intercepteth.

Cause. *Paulus lib. 3. Ibid. Avicen. tertia tertii, cap. 17.*

The Cause of those tumors is a slimie pituitous, and viscous humor, discending from the head: sometime it is no humor, but excrescence of flesh, caused as other excrescenses in other parts, the humor is for the most parts involved in a bagg or chest, like Atheorema, the which is both in colour and consistence like the white of an egg.

Signes. *Avicen loco citato.*

The Signes are evident, and for the most part it is both in colour and figure like unto a Frogg, called Rana, whereof it taketh the Name: it is accompanied with great tumor, chiefly of the Veines under the tongue.

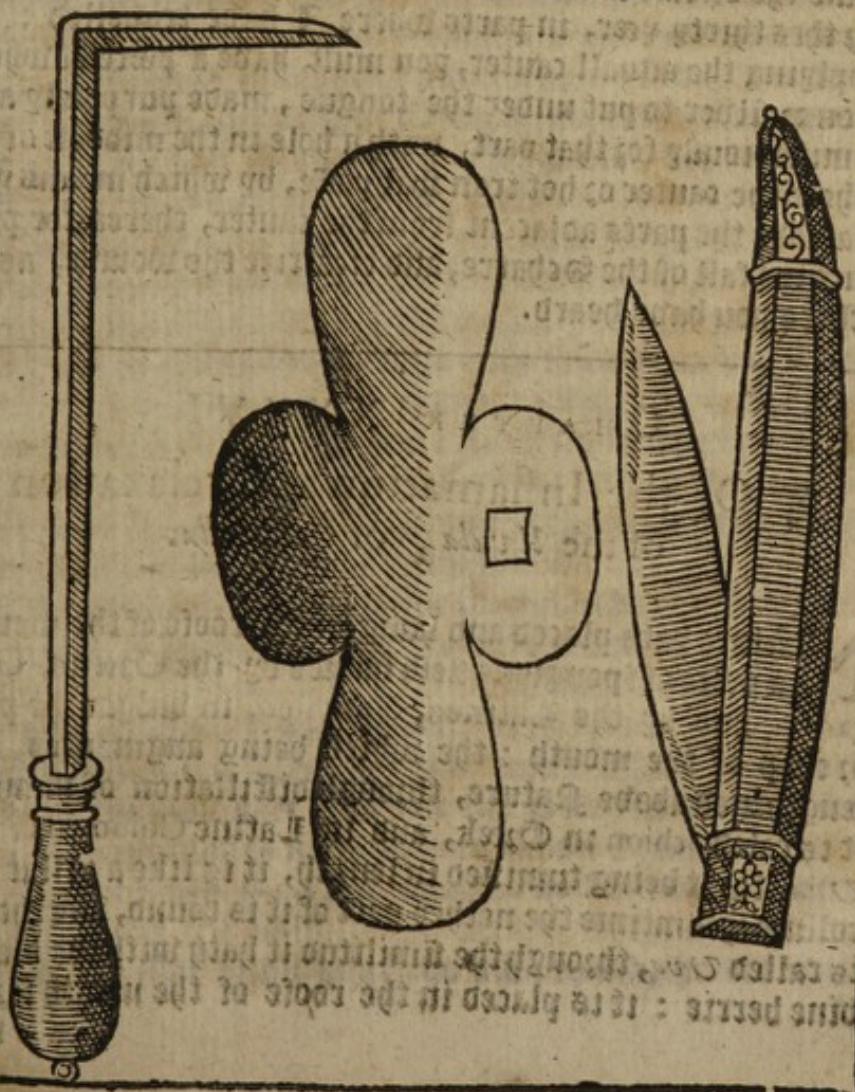
Judgement. *Albin. loco citato. Brunus lib. 2. cap. 3. Rasis de morb part li. 2. ca 37 Tract 6. de decora Avicen sexta tertii, cap. 18. Aetius loco citato.*

The Judgements, It is sometimes so big, that the mouth cannot containe it with the tongue, in such sort, that if hastie remedy be not had, the sick doth suffocate, and sometime in opening of it, the sick becommeth mad: if it be black, brownish, hard, and insensible, touch it not, for it is cancrous.

The Cure, first consisteth in purging the head, and if it happen in young Children, you must first assay Gargarisis resolatives, incisives, and stiptickes, like as of Origanum, barke of the Granad dragagant, æs ustum, and such like also rub it long with Sal Armoniac and Galls, or Sal Armoniac, Flore æris, with Dragagant: if by these meanes you profit not, you must come to the manuall operation, which

which is thus done, first place the sick commodiously, then cause one to stand behind him, and one of his hands upon his forehead, the other on his chin to hold it down, and open the mouth, then the Chyrurgion shall open the veines under the tongue with a Launce, next open the tumor, either by bistorie or cauter actuall. And

Instruments to cauterize and open the ranula Vnder the tongue.



Ætius serm. 8 cap. 57.

And evacuate the humor by degrees: next rub gently the sore with vinegar and hony, or wine and hony, clense it with gargarises made of decoction of Barley, Roses, Plantine and Hony, or sirrop of Roses, as afteires: if any thing remain either of humor or bag, you shall consume it with Sal Armoniacke, Flos æris, and other Corosives: somtimes the tumor is so malignant that oftentimes we are constrained to apply actuall cauters or tents, and plumations, wet in oyle of Nitreoll, or correcting the malignitie, and impassing it to be residue, as somtime happeneth, yet not often, because the disease is not common. I have seen of this disease for this thirty yeer, in parts where I have travelled: in applying the actuall cauter, you must have a peece of white yron or silver to put under the tongue, made purposely and commodiously for that part, with a hole in the middest of it, where the cauter or hot iron shal passe, by which means you shal save the parts adjacent from the cauter, thereafter produce the fall of the Scharre, and cicatrize the wound, as in others you have heard.

Alphon. ferrius Neopolitanus lib. de ligno sancto.

CHAPTER XXXVI.

¶ Of the Inflamation and relaxation of the *Uvula*, or *Columella*.

Gal 6. de comp med. per locos cap. 3.

Rando. meth. curan. morb.

NAture hath placed and hung in the roofe of the mouth, a peece of spongious flesh named by the Greeks, Gargarion, and by the Latines, Gurguleo, in vulgar the pape or chap of the mouth: the which being augmented, and lengthened above Nature, through distillation of humors, it is caled Schion in Greek, and in Latine Columella, and *Uva*, for it being tumified in length, it is like a pillar, or collume, somtime the nether part of it is round, and then it is called *Uva*, through the similitud it hath with the blacke vine berrie: it is placed in the roofe of the mouth for overs

vers reasons: First, it helpeth to pronounce the sound, and to speak clear by dividing of the ayre which cometh from the lights, for the which it is called *Plectrum vocis*: Also that the ayre which cometh by the Mouth and Nose, entreth not in the lights by the Trahe-Arterie, till the coldnesse of it be corrected, so that the lights be not offended by cold. Such as want the pappe or pellet, hath ordinarily deformitie in speech, with refrigeration of the loines: it doth impash that neither dust nor rhume enter in the trahe arterie with the ayre. *Brunus lib 7.*

The Cause is either external or internall: The Internall are hot humors which come from the head and cause inflamation, also vapours ascending from the stomack, as happeneth in rotten feavers, also abounddance of blood. The Cause Extern, drinking of strong wine, eating and drinking of bitter and sharp meats cold, hastie excessive eating and drinking at unaccustomed times. Cause. *Ætius serm 8. cap. 40.*

The Signes are evident to the sight, by pressing down of the tongue, accompanied with dolour, feaver, difficulty to swallow the meat. The sick thinketh ever to have something in his mouth readie to go over with great hast by the continuall distilling of the humor, impassing to sleep but with open mouth; Sometime it hangeth so long that it falleth on the tongue, and so grieveth the sick, that sometime he is constrained to put his finger in his mouth to help the over-going of the meat, as saith Avicen. Signes. *Ætius serm 8. cap 45. Gal 6. de comp. med. cap. 3.*

The Judgements, sometime it groweth to such bignesse that it filleth the throat, and causeth the sick to suffocate, if it be not quickly cut: If it be altogether cut or fall away, the sick altogether waxeth sick, or ell speaketh so that he may not be understood, and that drink which he taketh, doth for the most part avoyd at the Nose, as I have often seen. It happened to me at Paris to have a Chanon of Saint Anton, who had a certain disease in his mouth, by the which he lost the pellet of his mouth, whereby he became dumb, and that drink which he ever drank, he did avoyd the Judgements. *Hippo in his Presages.*

the most part of it at his Nose. Such as have the pappe or pellet great, long, and tumified, have their voyce so broken, that hardly can they be understood, or at the least doe speak through their Nose. That which is black, brownish, insensible, and dolorous, may not be touched, for either they become carsanomatous, or great flux of blood ensueth, so in that case it shal be best to apply remedies that have the vertues to refresh and comfort the part, and pacifie the paine.

Tra. lib. 1.

Cure. The Cure consisteth in purgations & Glisters, bleeding of the cephalick vaines, armes and vaines under the tong, ventosing in the neck & shoulders, with scarrification, fricions, gargarises, detersives, refrigeratives, astringents, with good dyet, tending to cold and drie, using meats of good digestion, abstaining from al strong drink, washing often the mouth with this gargarise made of Plantane, Barley, *Bursa Pastoris*, the bark of Pomgranet, seeth all in water, and add thereto a little sirup of Roses, of Violets, with some Gumm of Dragagant, and Sarcacoll; otherwise you may only use to wash the mouth with Plantane, Rose, Isope water, and a little Vinegar, hold a little of it in your mouth a pretty space; Allom water is also good for this purpose: Or this powder made of Allom Valust, *Terra Sigillata*, red Roses and Sugar, make all in fine powder, and put in a little Instrument formed like a spoon, put it in your mouth in such sort that the pap dip in it and receive the powder. After the same form you may take brayed Pepper and Salt mixt together. Also Salt dried, and put in a little pocket hot in the hole of the neck, some use hot bread to put in the hole of the neck.

Rol. li. 2. ca 17.

Randolet de morb curan.

Cels li. 6 ca 14

Celsus counsaileth to take a powder made of Allom, *Squammæ æris*, Gall, Myrrhe, mixed with a little sad Claret wine and applie to it: sometime being tumified, it tendeth to suppuration; if so, it must be opened with a Launcet, and cure it with Gargarises, as other Vlcers in the mouth: If by neither of these remedies the griefe doth diminish and goe away, you must hazard either cutting, knitting,

Lonicerus de expli. morb.

ting, or corrasives to consume it, otherwise the sick doth often times suffocat and die. The best remedie that I have found in this, is, first to place the sicke in some light part, open his mouth, and hold downe his tounge with a *Speculum oris*, thereafter cut a little of it with sharp sheares, then wash the mouth with Drecreate or some astringent water mixed with sad Claret wine, and some astringent powder: if there be flure of blood, stay it by some caustick powder. Some for this purpose do use the ligatour, as you have heard in the Chapter of *Epaulis*, the which is sometime dangerous for great flux of blood: others doe approve actuall cauters which sometimes I have seene used in the great Hospitall of Paris, called Our Ladies Hospitall, but with very evill successe; so by my advise assay it not, in case thereby you incurre rather paiu, than profit. I have sometimes cauterized the Uvula with a little oyle of Vitreoll, strong water, or Cauter potentiall, put either of these in a little instrument, and let the end of pellet or Uvula trampe in it: so that which is superfluous shall consume and fall away, then wash your mouth with warme wine or Drecreate, and use Gargarises, as is before mentioned.

Alb li 2 ca 37. Langfrancus. Celf li 7 ca 12.

CHAPTER XXXVII.

¶ Of the tumor or Aposthume of the Amigdals, called by the Greeks PARISCHMIA, and by the Latines TONSILLAE.

NAture hath placed in the two sides of the Uvula, somewhat behind, two little glandes which are spungious, one on every side to the greatnesse of an almond, for the which they are called Amigdals: their office is, to receive the humiditie which distilled from the braines, to the effect the parts of the mouth may be humected and refreshed: as also the trache-artery & tongue, in such sort that the tongue in speaking be not over-drie, and empash the pronunciation

Gal 3. simpl. caussis ca 4. & 2. de usu part. & aph 26. lib 3.

Cause.

The Cause, is great abundance of viscous sharp humidities which commeth from the head, also drinking of strong and fumide drink, walking abroad morning and evening when the dewe falleth, great abundance of blood: it happeneth sometimes to Children through the bitternesse of milk.

Re. li. 2 ca. 15. Gal 6 de comp. med per loco. cap. 3.

Signes. Judgements.

The Signes, are evident to the sight, in pressing down of the tongue. The Judgements, are dolour, feaver, accompanied with such inflammation, that sometimes it stoppeth the passages of the meat and drink, as also the respiration: so that the sick can neither let over the meat, nor respire, but doth suffocate, if hastie remedie be not had, as saith *Albucasis.*

Avicen nona t. rt. i cap. 5 Alb li 2. ca 36

Signes.

The Cure, consisteth in good dyet, eating little, & of good digestion, abstain from all strong drink, use Glisters, bleeding the arme and vains under the tongue, ventosses, frictions on the neck and shoulders, gargarises, refrigeratives, and desiccatives: If it apostumate as often happeneth, it must be opened with a Launcet, if the humor doth so augment that the sick be in danger to suffocate, you shall make incision in the trache-artery, after this form; lay the sick on his back, thereafter lift up the skinn of the trache-artery, with thy hand, and cut it in length till the membrain be discovered, then make your incision with a bistorie in the said place, thereafter put in an hollow tent of silver, gold, or lead, with a broad head well tight, that it goe not to the lyghts: after the danger of suffocation be past, use sirups of honey and Roses to cleans the wound, take out the tent and conglutinate the wound, and in all this time use externall medicaments about the neck made of Barley-flower, Lyn-seed, and Fenegrek, with such other things meet, according to the degree of the maladie: In this case I doe often use this remedie, which hath the vertue to close the soft parts, and dry up the humor pituitous which is fallen on the part, and hath the vertue to soften the glands intern, and is thus made, *Rec. Nidi hirundinis unc. 3 pulveris nucum cupressi unc;*

Aetius Serm 8 cap. 45. Kou. meth. curand morb. Cels. li 6 ca 13. Pa. li 6 ca 30. Hip pro 3. cap. 6 text. 12. Mesues de aegritud guttur.

Rasis de cura. morb.

unc. 1 *Rosarum unc.* 1 *semi. accipiantur cum exymellite fiat cataplasma.* This incision is very dangerous, not being rightly done, by reason of the flure of blood, which often happeneth: Likewise for the nerves which passeth that way. I cured an Apothecarie in Paris after this manner: some doe use to knit these glands, as you have heard in the chapter of *Epaulis*: others doe consume them by actuall cauters, others pull them away by Crosets and other instruments, either all whole or by peces, which from *Albucasis* alledged to have done to an old man, who had almost suffocated, but of the event of the cure he maketh no mention: somtime the tumor is malignant, which shall be known by the hardnes, lividitie, dolour, inequalitie, greatnes at the root, of the nature of *Cancer*, which must not be touched, but use remedies palliatives, as you have heard in the Chapter of *Cancer*.

Trall fol.177.

Pa. li.6.ca.30.

Alb li.2.ca.36.

Signes.

CHAPTER XXXVIII.

¶ Of the tumor in the throat, called by the Greeks *Synanche*, and by the Latines *Angina*, or *Strangulatio*.

THere chanceth in the throat many greivous sicknesses, but here only I minde to speak of that which is most dangerous, called *Angina*, which is an apostume or inflamation of the interior muscles of the throat, whereof there are four kinds. The first, is great inflammation in the throat. The second, is an humor contained behind the Amigdals, which sometime doe hinder the swallowing of the meat, and oftentimes doth suffocate the sick. The third, is great tumor and inflamation towards the chinn, both externally and internally. The fourth kinde is, when the vertebries of the neck goeth out of their own place, whereupon the tongue removes from the proper scituation with great difficultie to breathing. The cause of it, is either cold

Definition.
Hip prog. & comp. 34.
Pa li.3 cap 17.
Rol li 3 ca.15.
Difference.
Goedon. par. 4. cap. 1.
Ætius Serm.8. cap.47
Trallian. lib 4. ca 1.
Gal aph 4 cō. 34 & li 2. epi. sect 1.
Cause.

Paulus 3. ca. 27 Gal. apho. 4 cō 35.
Mesues de ægritud. gutt.
Signes.
Judgement.
Hippo. prosag. Paul. cita. & 4 de morb. acutis text. 30. Avicen nona tertii cap 9. Gal. 3. predict. com. 16.
Cure.
Mesues de ægritud gutturis Rol. li 2 ca 15. Rol lib. 1 cap 15. Trallianus ibi Hippo. 4 de victu in mor acu Paul loco citat. Gual. b. uet praxis medi.

cold ayre, usage of cold drink, with abundance of cold weak humors and vapours, not only of all the whole body, but of the head and parts nèer to it. The Signes, are difficultie of breathing, fever, heat, inflamation, and dolour in the throat. The Judgements are these, if it come suddainly through a fever, without any outward appearance, in the neck, it is mortall. This happeneth seldome to young children, except when the vertebres of the neck goe out of their place, and then they receive no cure. The Cure consisteth in Generall and Particular remedies. The Generall, shall be in good form of life in the six unnaturall things, eat and sleep little, and drink only Tysan, use oft Glisters, and purgations, pilles, bleed in the vain Cephalick in both the armes, as also those under the tongue. The Particular remedies are frictions, ventosies, with scarrification on the shoulders, with application of hot bread on the neck to divert the humor, with this linement (to rub on the neck) made of unguent refrigerant *Galeni*, oyl of Cammomill, Violets, and Lillies, with a little hens grease, thereafter apply sheeps wooll as it comes from the sheep. Gargarize the mouth with Plantine water, Vinegar, and Whey; or with this which followeth made of Barley, Pimpernell, Carvell, of each a little, seeth all together; and after the ebulition put to *Diamoron*, and honey of Roses, *Allexis* alledged to have cured it only in three hours, by applying one pound of *Aqua Scabiosa*, with an unc. of *Aqua vitæ* mixed together. *Paulus* and *Mezues* have ordained divers remedies for this purpose: also this Gargarism is good. *Rec. Aqua solani, Plantaginis, capri fol. i. an. lib. semi. Diamoron unc. 3 fiat gargarise.* If the tumor turn to suppuration, use this gargarism, take the roots of Hallowes, Althea, Sorrell, and Lyn-seed, of each one a little, boyled all in Cowes milk, putting thereto a little of the mussilages of Psylion, which you shall hold a certain space in your mouth warm. The matter then being come to maturitie, open it with a Launcet, then use this

Paulus ibid. Run de meth. curand. morb.

Avicen nova tertii. cap. 10.

this cleansing gargarism made of decoction of barly, hony, and sirup of Roses, for a certain space, holding it alwaies warme in your mouth: it being cleansed, you shall add to the foresaid decoction a little allom, balust, and myrrhe: thereafter sicatrize the wound, remembring all this time to keep good dyet, abstain from women, and take good heed the matter take not course to the loynes, which is most dangerous. If it happen at any time that either a little bone, or any other like thing fall in the throat, you shall hold your mouth close together, & pluck up cold water at the nose, til such time it avoid at the mouth. By this remedy I have seen sundry helped, who have been troubled chiefly with fish bones: and further he may take advice with *Albucas. lib. 2. cap. 38. & Paul. l. 6. c. 32.*

Antoni. musa cap. de sinant.

Cels. li. 4 ca. 4.

Jubertus de pilorum affect.

CHAPTER XXXIX.

¶ Of the tumor in the Neck, called by the Latines STRUMA or SCROPHULAE.

STruma is an inflamation of blood and pituite in the soft and glandulous parts, as under the jawes, armes, at the rootes of the thighes, and in the paps. It is engendered of a rotten thick matter, and congealed blood. The Cause is falls, strokes, or humor pituitous, mixed with melancholie: also drinking of evill waters, whereof I saw many infected at the siege of *Paris*: also by retention of the excrements of the braines, which should avoyd by the mouth nose, eares and eyes. This disease often happeneth to young children, through their great gulositie and raritie of the skin, for the which som call them *Scrophulæ*, by the similitude of a greedy Beast, called *Scrofa*. The signes are apparent to the sight: they are somtime few in number, otherwhiles many, and are covered with a membraine like *Atheroma* and *Steatoma*. The Judgements, those which are superficiall, mobile, and few in number, may resolve: such

Definition.
Paul li 6 ca. 35 & li. 4 ca. 33. Rol. lib. 2 ca 12 Gal. 14. meth. Cels. li 5. ca. 28

Cause.
Vigo ca. de tumor pituito. Theodori. lib. 2. Gord. part. 1. cap. 85. Arnald lib. 2. Breviarii ca 5.

Signes.
Alpho de ligne sancto lib. 2.

Judgements.

Barta Pallia. such are stable, hard, and maligne, doe not resolve, or hardly receive any cure: such as are great and néere the trachearteri, are difficult in opening, by reason of the nerves recurents, which being cut, the sicke either waxeth dumbe or becommeth hoarse like one that hath the cold: they are also difficile, being accompanied within vaines, for feare of fluxe of blood.

Cure. *Scribonius Largus de compo. med. Adamus Lonicerius de expl. morb. Avicen.*

The Cure consisteth in remedies universals, & particulars, as in good regiment, eate little and of light digestion, and abstaine from such things as engender grosse humors, purge often, bléed in both thy armes, and haunt drie places, thy drinke shall be composed after this forme: Take *Scrophularia* 3 parts, *Philopendula* 2. parts, *Philosella* and *Brassica*. of each a little: the rootes of Reddish and *Aristolochia* a little, séeth them all in white wine, with a little hony, till it be halfe consumed, of this you shall use 2. ounces in the morning, every two dayes once. I have used to divers a decoction laxative the space of 15. or 20, dayes: otherwise my confection set downe in the Poore mans Guide, whereof I found great helpe. The particular remedies are to annoynt the part with a little salt butter, fried in a pan with a little Vinegar till it grow black: some use the plaster of *Vigo* with Mercurie. *Brunus* and *Thoedoricus* approve much plaister made of Ammoniacke, and *Bdellium* resolved in Vinegar, *Lebot* commendeth *Diatscetum Magistrale*, and *Divinum*, mixed with quadruple Mercurie. I commonly use that cataplasme set downe in the chapter of *Parischmia*. If it tend to suppuration you shall use this, take the leaves and rootes of Mallowes, Lillies, Reddish, Turmericke, Agrosus, of each 2 ounces, leaves of Camomill one handfull, and make a decoction, whereunto you shall adde the flower of Beanes, Lin-séed, and Fenigreke an ounce, Swines grease that is fresh a pound, make a cataplasme, adde unto it a little oyle of Irin, and Lillies. This remedie hath the vertue both to digest and ripen: when it is opened, cure it as you have heard in others.

Brunus. Theodoric. Rundolet de curan. morb.

Scribon. Largus de compo medica. Al li. 2 cap. 42.

Some

Some old and new Practicioners in the cure of this, doe cut away all the glands, taking héed of the nerves recurrent, which serve to the voice: sometime children having scabs in their heads, the brains humid by wrong lying and taking cold in the night, have the glands tumified. For remedie whereof, apply oyl of Camomill, Ani-séeds, and swéet Almonds, with a little Henns grease and butter. If the tumor be hot, add to it oyl of Roses, and Violets: also rub it with fasting spittle till it grow hot. This disease is called the Kings Evill, which is alledged by Frenchmen to be cured by their King after this form; the diseased first is viewed by the Chyrurgions, who finds it to be the kirnells or Kings Evill, then the diseased is set on his knées, and presented to the King, who maketh a crosse on his forehead with his hand, saying, *Le Roy te touche, Dieu te garrie*, which is to say, the King doth touch thee, God make thée whole.

Rol. li. 2 ca. 12.

Kings Evill.

CHAPTER XL.

¶ Of the tumor in the neck or cragg, called *Broncocele*, or *Hernia Gutturosa*.

This tumor, which the Gréeks call *Broncon*, and the Latines *Hernia gutturis*, and the Arabians *Botium*, is round and great, ingendered of the humor phlegmatique, betwixt the trache-artery and the skinn: sometime it occupieth the most part of the cragg, of the which there are divers kinds according to the matter contained therein, sometime like *Atheroma*, otherwhiles like *Aneurisma*.

Definition.
Paul. li 6 ca. 33
Rol. li 2 ca 14.
Lonicerus de morb. expl.
Rol. li. 2. ca 14.

The Cause is not different from these that it is like unto, yet some are externall, and some internall, proceeding of a cold and humid ayre, drinking of evill water, as those who dwel in *Pimount*, and about the Alpes are much subject, because the most part of their drink is melted snow: it happeneth also by the retention of monethly courses in women, and Hemorrhoides in men, with great repletion of the melancho-

Cause.
Chelmecens. ench. Chir.
Arnald. lib 2. breviar. cap. 4.

Signes.

lancholique humor in both sexes. The Signes are most evident to the sight.

Judgements.
Paul li 6 cap. de hernia guttur.
Alb. li. 2 ca 44
Theodor. lib. 3. cap. 31.

The Judgements, those that come by nature are incurable, and those which are like unto *Aneurisma* most not be touched, such as are very great accompanied with great vains, are very dangerous, and in no wise to be touched, those which be tractable must bee opened by cauter or launcet, eschewing alwaies the vains.

Cure.

The Cure is, first to corroborate the head with powder cephaliques, thereafter apply unto the sore a cake of lead rubbed with quick-silver, or the emplaster *de vigo*, with Mercurie, rubb it with thy hand till it grow red, before the application of the plaister, and use such things as do provoke spitting, for the which it shall be expedient to use five or sire graines of my Arabick powder, hold thy bellie low and keep good dyet, bleed in both the armes, if the malady, intemperature of the person require. That kind of it which is like unto *Atheroma*, may be cured as you have heard in that Chapter. As for the other kinds of it, if that avayle not, you shall have recourse to my Book of the disease of Women, by reason oftentimes it happeneth to them in time of their travailing, by stopping of them to cry in the time of their extream pain, the which Book God willing shortly shall come to light.

Bru li 2 ca. 7

Chapter XLI.

¶ Of the tumor called *Aneurisma*.

Definition.
Gal. lib tum. præternatur.
Cause.
Paul. li. 6 ca. 37

A *Neurisma* is a tumor soft to touch, the which is engendered of blood and spirit under the skin and muscles, which happeneth in divers parts of the body, chiefly in the sides of the crag. The Cause is either dilitation, incision, or ruption of the artery, which often chaunceth to Women in the time of their birth, to Trumpetters, Criers, Watermen, and others, who use violent labour, and great crying,

or

or other violence, by the which some of the artery doth dilate. The Signes, are tumor, impressing on with the finger, great pulsation. The tumor is of the same colour, as the rest of the skinn, soft to touch, yeelding to the finger, by reason the blood and spirit retyreth unto the arteries and parts adjacent, and having removed the finger, it presently returneth with a noise or bruite, by reason of the blood and spirit that returneth. Signes. *Adamus Loni. de expli. morb.*

This happeneth when the *Aneurisme* is done by anastomies, that is, the artery be opened and cut: When the artery is riven, as happeneth to woment, and those of great exercise, there issueth forth more abundance of blood then spirit, and is more hard than the other, and maketh lesse noise in the retyring. *Gal. lib. tumor praternatur. cap. 11.*

Those which are superficiall in the exterior parts, as the head, legs, and armes, may be knit, and are curable: those which are profound and interior, in the breast, as often happeneth to those who sweat excessively of the venerian sicknesse, and otherwise: also those in the neck under the armes and roots of the thighes, and when there is great dilatation of the arteries, are not curable, but death ensueth within few dayes, or at the least are very perilous, as saith *Paulus*: and if the tumor be opened, the patient dyeth presently. Judgements. *Paul li. 6 ca 37.*

This happeneth oftentimes by the unskilfulnes of ignorant Barbors and other abusers, who meddle with this art, who ruyne a number of People through their ignorance, as I have often seen: such ignorants do esteem all tumors that are soft, should be opened as common Apostumes.

I remember in Paris in Anno 1590. there happened such a disease to a valiant Captain (my great friend Captain Jayle, who was one of the chiefest Captaines amongst the Spaniards at Paris) on the right side of his cragg, for the which, I a Chyrurgion Major to the regiment, was sent for, and found it to be an *Aneurisme*, so not to be touched; of the which opinion was my good friend

And ow Scot.

friend Andrew Scot, who was a great Practicioner at Paris for the time, & well excercised in the art of Chyrurgery, we did ordain remedies to let the increase of it, which receipt being sent to the Apotherary, who before had seen the sayd Captain, did think it no meet medicine for an Apostume (as he termed it:) so presently he sent for an ignorant Barbor like unto himself, who did swear unto the Captain that they had sawes and charmes for all fores, so without further tryall did open it with a Launcet to avoyd the matter (as they thought) which being done, the spirit and blood came forth with such violence, that the Captain dyed in few hours after. I doubt not but in these Countries divers such errors are committed by ignorants. I doe use alwayes in such, chiefly in the neck, under the armes, and in the papps, these remedies which I have prescribed to the Spaniard, that is, first to draw blood in both the armes, then apply on the tumor *cerat Galen* or *debullo*, or this, *Rec. Pulveris subtilissimi boli arminici, sanguis dragonis, myrtilorum, lapidis calaminaris in aceto extincti, absinthii, an unc. I. cum cerato refrigerantis Galeni quantum sufficit, fiat unguentis.* For the same purpose I use a cake of Lead rubbed with quick-silver. These things doe let the growing for a time, although it be nèer the noble parts. If it happen in the extremities of the legs or armes, they may live a long time by the usage of the foresaid remedies. I knew a woman in Paris, who had a very great one in her thigh, and did live ten years. If it be little and superficial, I finde nothing better than Cataplasmes made of Claret wine, with cropps and leaves of Cyprus. When the artery had been opened in the place of the vain, as sometime happeneth, I doe knit it after this form: first makes incision in the skin long-wayes, then discovers the artery, then passeth a Curbit nèedle with a double thread under the sayd artery, two inches above the incision or ruption thereof, then knits it with a double knot, voyds away the blood contained, so cures the wound.

Error committed by ignorants.

Remedies for the *Aneurism.*

Cataplasmes for the superficiall *Aneurism.*

CHAP-

CHAPTER XLII.

¶ Of the Tumors, or Apostumes in the Pappes.

THe Pappes which are glandulous parts, partly ordained for decoration, and partly to be answerable to the chambers of the matrix, and are ordained for the genetion of milk, they are subiect to divers diseases, as other parts of like substance. Definition. *Gal lib. de usu partium.*

The Cause, is such as you have heard in other Apostumes, also retention of the monethly courses, or abundance of thick corrupt milk. The Signes, are such as you heard in others such like, as dolour, pricking, tention, rednesse, fever, and divers others. Cause. Signes.

The Cure consisteth in universall and particular remedies, as purgations and bleeding, chiefly in the savane vain, ventosing and frictions on the thigh, with strups and other convenient remedies, for the provocation of the moneths, as you shall hear at larg in the Book of Diseases of Women: use good dyet tending to humiditie. Cure.

The particular remedies differs not from other apostumes, saving that thou use familiar & weak repercussives, because it is nèer to the noble parts, in the beginning it shall be good to foment the pappe with hot water, Vinegar, and oyle of Roses: or this, Take the flowers of Camomill, Lyn-seed, and Fenegreke, of each half a pound, the juice of Mallowes, Roses, and Plantane, of each 3 ounces, Vinegar 2 ounces, wet a cloth therein and lay to the sore: if it tend to maturation, take the crummes of white bread and bean meal, of each one half an ounce, flowers of Fenegrek as much, Mallowes, Althea and Lillie roots, of each a little; seeth them in milk, putting thereto the yolk of an egg, fresh butter, and a little Saffron, make a Cataplasm and apply: when it cometh to suppuration, open *Paulus lib. 3. cap. 35.*

it

it with a Cauter or Launcet, evacuate the humor, and cure it as other Apostumes: use a Bandage of three sheaves, as is set down by Galen, to hold it up, for great hanging down maketh attraction of humors: Labour not with that arme of the sore side, for that maketh attraction of milke which letteth the healing of the sore: sometime womens papps doe grow very great not being sore, which is very unseemly, for remedy whereof, Fallopius biddeth take the heard *Melissa*, bruise it and apply in form of a plaister, which leteth the growing.

Gal lib. de fasciis.
Vido video interprete Florentino.

CHAPTER XLIII.

¶ Of the tumor in the Thorax, called the *Plurisie*.

Definition.
Arnald lib 4. breviar. ca. 5
Difference.
Paul: 3 cap 32
Gordo part. 4
Avicen 13. ca. de pluri.
Mesues de ægritud. pector.
Cause.
Ætius serm 8 cap. 68.
Avicen decima tertii cap: 15
Gal 4 locorum affect. cap. 8.
Signes.
Gal. 5. locorum affect cap. 3.
Hippo prædict. 2. text 10
Rosis lib 6. de mor par. ca 58.

PLurisie is an inflammation and tumor, or a masse of blood, which turneth into a bilious matter, in divers parts, but chiefly of the membraines and muscles, which knit and cover the ribs, whereof there are two sorts, the false and true: the false is outward in the muscles of the short ribs; and the true, is that which happeneth in the membrains, which knitteth the ribs,

The Cause, is externe and interne: externe, is great heat or cold: the usage of strong wine or very cold water, violent exercise, and cold ayre after great heate: the internall cause, is great repletion of all the foure humors, but chiefly the blood and choller, which maketh the most subtill part of the blood ascend from cave vein unto the vaine *Asygos*, thereafter in the vaines and membraines intercostalles.

The Signes are great dolour, from the shoulder unto the nethermost rib, punction in the side, continual fever, difficulty of respyring, coughing, hard pulse, great alteration, with want of appetite, evil favored breath, heavines, and ponderosity of the sides, great fever chiefly in the night, little

little sleep, some sweats which happen through the great pain.

The Judgements, these which cometh on the right side, are not so dangerous as on the left. If the spittle be black, livide, and viscous, with continuall cough, vehement pain, long continuing, the urine be thick, blew, or black, it is deadly: if the cough be very drie and cease not, it is an evill signe, but if the spittle be white, light and equall, with little cough, the patient sleeping well, having good appetite, and urin red coloured, it is a good signe. Judgements. *Aetius serm. 8. cap. 65 & aph 10. 13. 22. 39. Avi. lib 4 Gal li 5. meth. ca. 7. & 8.*

The Cure consisteth in universall and particular remedies: universalls, as glisters, bleeding in both the armes, chiefly in the side opposite to the sore, keeping good dyet, abstaining from strong drink, Women, and perturbations of the mind. Cure. *Pau. li 3. ca 32*

The particular remedies shall be cataplasmes, linements made of flowers, with Cammomill, Melilot, Aniseeds, Lyn-seed, and Fenigrek, if the dolour be great and continue. *Fuchius* counsaileth frequent application of ventosies, with scarrification of the part infected. If by any of these remedies the pain doth not cease, neither you perceive any evacuation of the humor, by the mouth, urin, or fundament: It is to be suspected that it turn into *Empyem.* which is a collection of matter, betwixt the ribbs and the region of the lights or lungs, sometime with corruption of the part, for the which we make incision, for fear the lungs be corrupt and become ulcered, then the incision shall either bee made by Cauter or Launcet, but rather with the Cauter, for neither doth it close so soon, nor is so dolorous: the opening shall be best betwixt the third and fourth of the tru ribs beginning at the nethermost and count upwards, hold you six inches from the ridg of the back. In making of your overture, which shal be either with Cauter potentiall, or Curbit bistory, till you come to the capacity within the ribs: make your overture at great length, beginning above, and guiding the bistorie in by-wayes, from the third ribb to the fourth, *Gal. 5 meth. cap. 8.*

fourth, eschewing the vaines, arteries, and nerves which are under the inferiour part of the ribbe: the overture being so duely made, evacuate the matter by degrees, and not all at one time, for feare you dissipate too much the spirits: put a tent into it with an emplaister of *Diacalcithios*, or *Betonica*, mixed in Claret-wine. Sometimes there is a certain congealed water, gathered under the Sternum or brisket bone. For the Cure whereof, *Columbus* counsaileth to trepan the Sternum; but I rather in that case approve the Cauter potentiall, as counsaileth *Arnaldus*: make a good escharre, hold it long open.

Columbus.

Arnaldus.

This Cure is rare and seldome practised, yet after this method I did cure one John Buchan Master of the Song School in Glasgowe, who was heavily grieved with a watry or congealed humor collected under the stern, of the which he was cured perfectly.

If you see tumor eminent in any place of the thorax, open it in the most convenient place. Hippocrates doth counsaile to discover the third ribb, and bore it with a Trepan perforative to let out the humor, then put a hollow tent either of Silver or Lead, and let not al the matter avoide at one time but by little and little, and cure it as other Apostumes.

Chapter XLIIII.

¶ Of the Tumor in the Navill, called in Greek *Axomphalon*, and in Latine *Eminentia Umbilici*, or *Hernia Umbilicalis*

The Navill is the middlemost part of the body, whereby the Childe is nourished in the Mothers womb: it is composed of sinowes, vains, and arteries, the which, when the Periton is dilated or rent, it doth swell and tumifie in such sort, that sometime it doth rive.

Constantine.

Lonicerus expli. morb.

The

The Causes are divers, like as by the dilatation of Periton, whereby the intestine commeth forth, or by the bloud which may flow from the veins and arteries: also by wind or water in that part, and by knitting of the navill too short or too long after the birth: neere knitting, either slippeth, breaketh, or maketh convulsion, and other grievous diseases: by the too long knitting it giveth place to the intestine or *Omentum*, whereby some Bloud, Flesh, Water, Wind, or Vapours, doe occupie the eminent part. Cause. *Alb li 2 de cura eminentiæ numb cap 52. Gord part 8. cap. 2.* *Faventinus de med mor. cap. de amp. numb.*

The Signes are knowne by diversitie of matter therein: as if the *Omentum*, the tumor is soft and the colour not different from the rest of the flesh: if the intestine, the tumor is soft, unequall, & returneth into the capacitie with a noyse or bruite: if humiditie or vapours, the signes are as you have heard in watrie or windie tumors: if through blood, which happeneth by the ruption of som vaine or arterie, the signes like unto *Aneurisma*: if excrescence of flesh, the tumor is hard, and obeyeth not easily. Signes *Theodor. li.5. Al. li 2 ca.52.* *Anton. bene de abditis morb. causis.*

The Judgements are these, when the dilatation is great, it healeth not easily, and often riveth by som violence or great coughing. Judgement. *Paul. li 6. ca. 51.*

The Cure is, first in good regiment, tending to sobrietie, abstaining from all flatuous meates, and all such as engender crudities, from moving, exercise, and such like. The particular remedies consists in emplaisters astringent, or this emplaister set downe by *Petrus Argilla*: also fomentations, astringents, and bandages, chiefly in the beginning: if that helpe not, reduce the pudding and quaffe, and cause the sicke to hold in his breath till you knit the production with a ligatour, then let it fall off it selfe, and produce the siccatrize. If it be rent by great violence or cough, and the intestine cometh forth, as happened to an honest Matron in Paris, whom I cured after this forme: First, I enlarged the dilatation with a Launcet curve, then reduced the intestine, and used the suture Pellitor, as is set downe in the general chap. of wounds, and cured it as other wounds. Cure. *Cels. 6 ca. 17. & li. 1. ca. 14.* *Petrus de argilla de emen. umbi.* *Chelmet. ca 48.* *Ra li 9. ca 71.*

If

If there be wind or water in the place, you shall cure it after such form, as you shall hear in the Chapter of woundy or watry herns or ruptures.

Chapter XLV.

¶ Of the tumor in the Bellie, called *Hydropsie.*

Definition.
Gal. li. 3. facul. natu. & cap 6. li. 6 5. de loo affe Avicen 10 4. cap. 5. Arnald lib. 2. breviar ca. 40
Difference.
Trallian lib. 9. cap 123. Ga. com. 2. in aph. & 4. de morb. acutis text 3, Cels li. 3. ca 21. Paul li 6. ca. 50. Roger. ca. 45.
Cause.
Thiod. part. 6 Ætius serm. 10 cap. 20. Arculeus savonorola. Gal 5. loco. affect. cap 7 Gordo. part 6 cap. 5. Avicen tract. 4. cap. 4. Gal. 5. loco affect. ca ult. & lib 3 cap. 29.

Hydropsie, is a tumor against nature, ingendered of great quantitie of Water, Winde, or Flegm, which sometimes is dispersed through the whole body, and is called Universall, otherwhiles in some part therof, & is called particular. It is most commonly in the capacity of the Periton, of the which there are three sorts, to wit, Ascites, Timpenites, and Anasarca. Ascites, is a maladie that causeth the bellie and leggs to swell through a watry humor, the rest of the bodie is small and lean. Tympanites, is a maladie in the which is more flatuositie and lesse humor, and in touching soundeth like a Drumm. Anasarca, or *Lucophlegmatia*, is a disease wherewith the whole body, but cheifly the privie parts, are swollen with a pituitous humor, white and clear, accompanied with fever.

The Cause, is either extern, or intern: extern, as strokes, falls, heat, flux of blood, or great and long running of the Hemorrhoides or moneths: also through dysentery and great usage of humid meats, as sounds, waterberries, evill water, and such like, whereof we had good proof at the siege of Paris, also evill regiment. Plato sayth, that in the time of Apollo and Esculapius, neither Catarrhe, Hydropsie, nor many other diseases which now raign, were known, the which wee may greatly attribute to their great sobrietie. The Cause intern, cometh chiefly by the vertue alteratrix and concoctrix of the liver, and by Apostumes of the liver, passions of the stomack, through the vice

vice of the vaines meseraicks, intestines, matrix, bladder, lights, milt, and kidneyes.

The Judgements, al Hydropsies after hot fevers, or happening in fevers are evill, and if through Apostume of the liver, it receiveth no curation: if by using remedies the sick groweth better, and within few dayes evil againe, he healed not: if the diseased become laratiu, and have no ease of his paine, or if the spittle, the breath, and excrements doth stink and flower evill, they be al signes of death: if flux of the belly with difficultie of respiring, he dieth within three dayes: of all the three sorts ascits is the worst. Those that are young, robust, and the noble parts not viciated, especially the liver, and may use exercise, the humor not being putrified, may be cured.

Judgements. *Tra. lib 4. Hip. prog. 2. text. 2. Gord. part 6. cap. 5. Alb li. 2. ca 54. Hippo in his Presages. Hip. apho. 35. & 42. & aph. 5. & 7. Trallian. lib 9.*

Then for the Cure of such, there are three Intentions: The first, is in good diet tending to heate and drie, of good nourishment and light of digestion, little drink or none at all, if possible may be, and if the diseased may not pass without drink, he may drink a little clean old Wine. I knew a man that was cured by abstaining only from drynk halfe a year. Antonius Benevenius reporteth that he knew men cured by abstaining from drink one yeare, without using any other remedie. Let their bread be Barley, wherein shall be mingled the powder of Wormewood, Anis-seeds, Betonie, Calaminth, *Calamus aromaticus*, Succorie, and Fennell, which things may also be put in their pottage, Asses or Goats milke were good to be used. The second intention is done with fomentations and unguents resolatives, as in Oedema you have heard. The third intention, is to corroborate the intemperie of the liver, as is amply set downe by Albucasis. I did cure sundrie at the siege of Paris, by a remedie which I brought from a Turk, who was bend-slave to *Dondego de varro Viudor*, Generall of the spanish regiment there, and is thus made, Take a handfull of Fennel roots, of *Appium Rusticum*, & *Eupatorium* as much, *Psendo masculum* two handfuls. *Petroselinum macedonicum*

Cure. *Pau. lib 3. cap. 2. & li. 2. cap. 48. De abditis morbor. causis. Tra. li. 9. ca 2. Avic. 10. Aph. ca 3. tract 2. Gal. 14. meth. Gal. 7. ap. Comment 57 & 3. de temp. cap. 3. Alb lib citat. Haly Abbas. Guydo.*

one handfull, *Hepatica* or *Herba Trinitatis* as much: of all those, take the branches and not the roots, gathered dry in the Sun, infuse all in eight English pintes of white wine, and let it seeth till three pintes thereof be consumed in an earthen pot close covered, let not the aire passe out of it: it being throughly boyled, strain it through a clean cloth and give to the sick to drink allwayes, in so doing he will after three daies take a flux of urine, which will continue fifteen or twenty dayes, in which time such as I have handled were ordinarily whole. In all this time keep them very warm, use only rosted meat of good juice and light of digestion. Some in the said disease doe counsell to make incision, the which I have often seen, but with evill successe, and not to be used, as being rejected by Trallianus, Gordonius, and others. The manner of the incision is this: The sick must be commodiously placed, then the overture must be made either with Bistorie, Launcet, or Cauter, three inches under the navill, towards the flank on either side, escheuing the *Linea alba*, and extreamities of the muscles of the epigaster, and the nerves and tendones of *Musculi erecti*, for in hurting of those, grievous accidents may follow as fever, dolour, difficultie to consolidate the wound, sometimes death, as I have often remarked in the great Hospitall of Paris, and other parts: the incision must be very little, taking good heed you pick neither vain, artery, nor intestine, put a hollow tent in it, with a broad head made of Silver or Gold.

Ra li 9 cap. 69. Al li 1. cap 32 Tralli. Gordo Cels. li 7 ca. 15.

Bra li 2 ca. 8.

Arnald. ibid.

Instruments

Instruments to incise the Hydropick with hollow tents of siluer or lead

evacuate the humor by little and little, stop the tent with a cloth or water-spung after it be handled, and apply upon it a plaster of *Diacalcithios* mixed in wine. Paulus counsaileth, if the Hydropsie cometh from the intestines, to make the incision in the Navill. There are many other things which may be spoken of this matter, which I leave

Pa li 3 cap 48.

Cels. li. 3. ca 22.

to the learned Physition, being more phisicall than Chirurgicall: yet by reason that somtimes it falleth under the Chyrurgions hands, I thought good thus much to intreat of it.

CHAPTER XLVI.

¶ Of the Fistule in the Fundament. and the Cure thereof.

Gal de usu partium.

THe Fundament, which is called in Latine *Anus*, in Greek *Hydia*: it is that part whereby the excrements of the body are discharged, and is subject to indure thirteen grievous passions or diseases, to wit, Fistula, Thymus, Candyloma, Atrices, Clausio, Ragades, Hemorrhoides, Oritus, Paralysis, Ficus, Pruritus, Siccatrix, Apostumes, with divers others, whereof Vigo, Brunus, and Theodoricus, have spoken at length. Fistula, is a hard sinuositie, from the which doth proceed a humor or matter virulent. The Cause is wounds and ulcers, evill cured, Hemorroydes intern, or some Apostumes which have proceeded. The Signes are evident, & may be known by the sound, or seen by the *Speculum*, accompanied with dolour in those parts: flowing of a virulent humor, avoyding of Pus or matter purulent, with the excrements: Of those there are two kinds, the one is obscure, hidd within, without any appearance of orifice externally, but only within the intestine called *Intestinum rectum* or in the muscle *Sphinctir*: the other kind which is manifest, is known to the sight being extern. In the cure, there is diversitie of opinions amongst the old writers: Avicen, Gordon, and some others, counsell only to apply linements, and other medicaments, with tents of Caddisse, and clean cloths to hold it clean: others are of opinion to use manuall operation, which is done three wayes, to wit, by Cauter actuall, incision, and ligatour. Albucatis, Brunus, Theodoricus, and Guido, doe counsell to cut and consume the Fistule and callositie with actuall Cauters,

Definition.

Cause.

Signes.

Cels li. 5 ca. 28 lib. 7. cap. 4 & 30.

Theod lib 3. cap 43.

Cure.

Gord part. 1. cap 7.

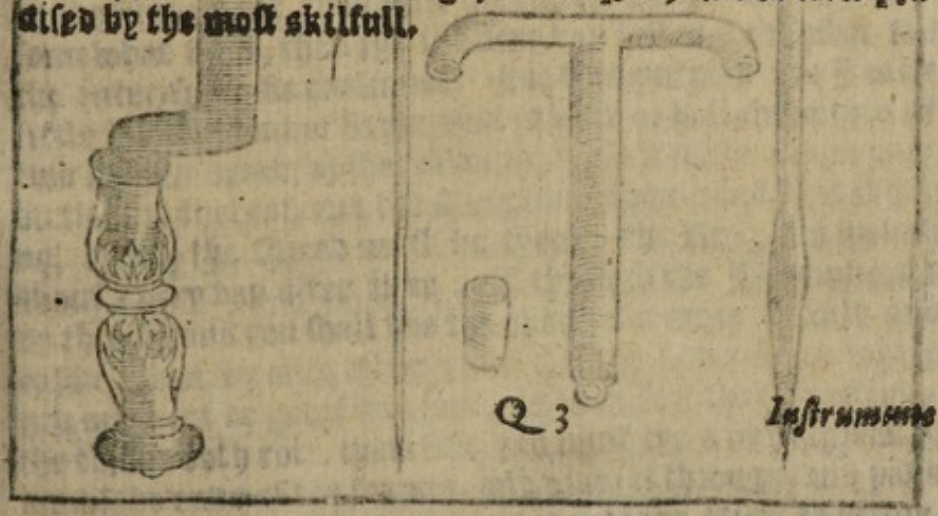
Bru. li 2. ca 6 Alb li. 2. ca 80. Guido tract 4 de ulceris.

Cauters made and accommodated to the greatnesse of the Fistule. The Cauter consumeth the humidite, stayeth the flure of blood, but the forme is cruell, painefull, and uncertaine: there be others, who are of opinion to cut, make incision, consume and take away the Fistula with a Fistory, or other Instrument purposely made to that effect, and cut all the inner-space betwixt the oriface and fundament, as Paulus saith. This forme doe I not approve by reason of the great flux of blood, which often hapeneth, as I have sometime observed: as also by cutting of the callositie often the fibres of the muscle Sphinctir are consumed and cut away, which causeth that the matter fecall is not so well retained thereafter: so that at all times when the excrements approched the port, the patient is ever forced to goe to stool. I have found no forme so sure nor lesse painfull than the Ligatour, the which hath bin much approved by our ancients, as Hippocrates, Celsus, Vigo, and others, and is now practised by the most skilfull.

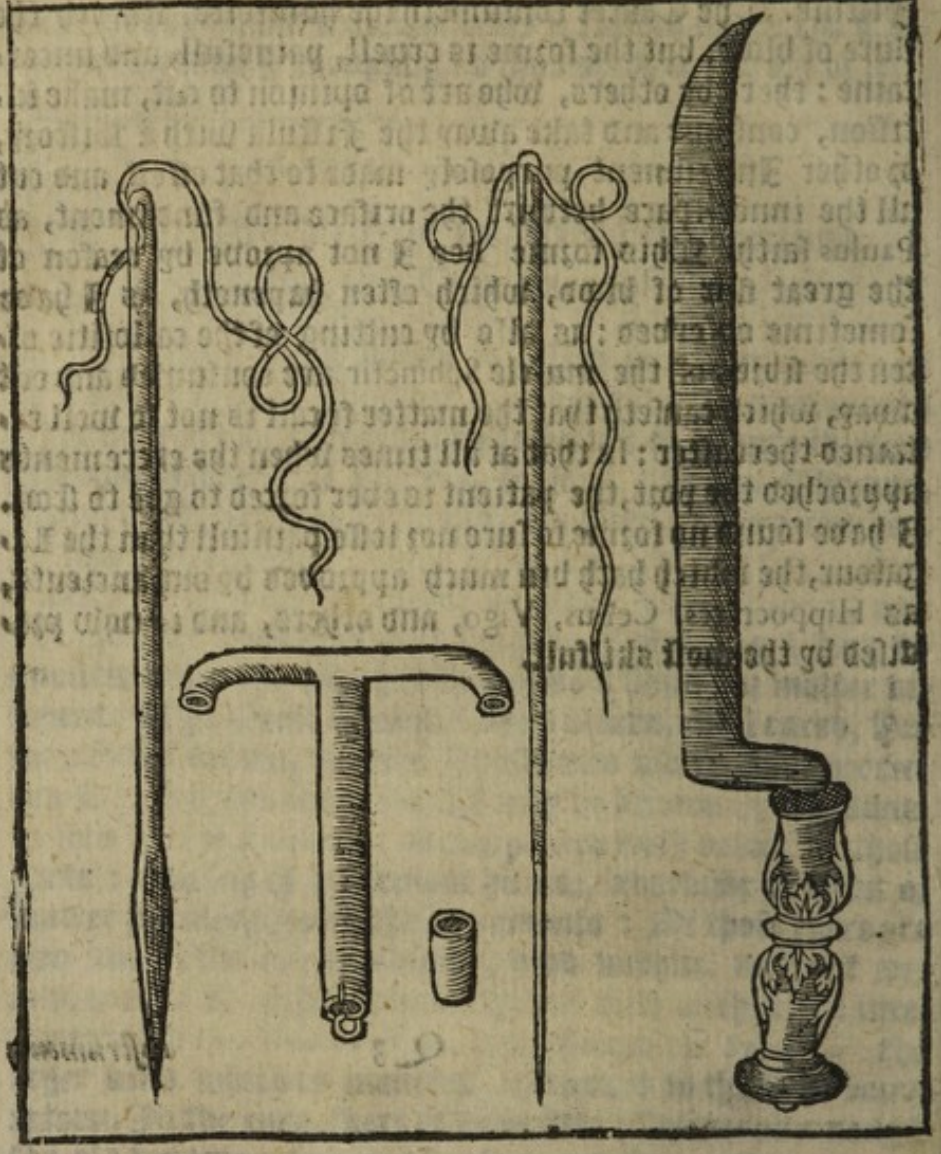
Alb li. 1. ca 36.

Pau. li. 6. ca. 78

Hip. li. de fistu. Vigo lib. 4. de ulcerib.



Instruments to cut and knitt the fistula in the fundament.



the form whereof is this, The sick must first be purged, and use a good diet for a certaine space, especialy in the night before the operation, which shall be about 8. or 9. of the clock in the morning, then the patient shall stand upon his feete, bowing himselfe forward over, either upon a bed or chaire, holding his legs and knees asunder, and so continue till the

operation

operation be done, then the Chyrurgion shall put his middle finger in the fundament of the patient, til he come to the upper part of the Fistula, the finger being first annoynted with oyl or butter, then with his other hand he shall passe a sound made in form of a Needle Assetone, which must be made of Gold, Silver, or Lead: the Gold and Silver must be so tempered that it ply like Lead, yet hard and sharp at the point, thread it with a thread of four ply that is well rubbed with war: some doe annoynt it gently with caustick oyl to make it cut the sooner: then passe the sayd Needle or sound in the orifice of Fistula, thrusting it forward untill the time you find it on the point of your middle finger, which is within the fundament. If there be any little membrain betwixt as often happeneth, thrust the Needle through the same, which being done, you must ply it with the point of the sayd finger: in thrusting it the one way, and convaying it out by the fundament, then knit the thread with a running knot somewhat slack, then tye it every day faster and faster till the inter-space be consumed. For this purpose doe I use a little Instrument of silver, that is bosse or hollow within of two inches broad, or thereabouts, with a little round ring on the end thereof, and the King must have a rest that it goe not about, the thread must be tyed to the King and wound about every day after it be past through the Instrument: by this means you shall doe the operation more cleanly and easier, than by only tying of it: if the inter-space which you must cut be great and long, in such sort that sometimes the thread doth rott therefore you must tye a new thread to one of the ends of the former, and draw it through, and passe it through the Instrument, and tye it to the King as before. If the Fistula be obscure and have the orifice intern within the fundament which is more difficile than the former, you must with a *Speculum ani* gently dilate the fundament, till you perceive the orifice, then passe your Needle or sound in the orifice as of before, thrusting it in the orifice almost through to the further side, so convaying it downwards

Parre. lib. 22. cap. 23.

A needle of Gold or Silver for the Fistula.

till it come to the ground or bottome of the Fistula. This Sound which wee use commonly in this kind of Fistula, is of Lead, so is not of force to peirce through the whole hyde, for the which wee are constrained to make incision in the utter side against the point of it, so passeth it through with the thread, and layes it to the ring through the Instrument as before. This Cure I did use at Paris to a Scottish gentleman called Colonell David Boyd, who had the orifice of the Fistule intern so high up, and the interspace was so great, that I was the space of eight weeks in consuming of it, and the Gentleman was made perfectly whole. Here you must mark, that Fistules which are very high, are neither to bee cut nor knit, because the sick shall ever be constrained to voyd his excrements so soon as they approach to the port, for the which it were better to use remedies pallatives, then hazard any other cure.

Chapter XLVII.

¶ Of *Thymus* in the Fundament.

Definition. *Thymus* is the worst kind of those five sorts of waters or little tubercles which happeneth in the fundament, it is called *Thymus*, because it is *Tuberculus*, and groweth like the flower of time.

Cause. The Cause is evill humors, which doe come from the whole body, but sheifly *à ramo splenico*, with the humor oftentimes there is a malignity.

Cels. li 5 ca. 28

Signes. The Signes, Are Ulcers, Tubercles, Fetide, avoyding a matter virulent, and are for the most part small at the root.

Judgements. The Judgements, In old people foreconing, wee doe attempt no cure but only palliatives, for oftentimes being not cunningly handled, or in people of evill temperature it becometh carsinomatous, so the sick dyeth miserably.

Cure. The Cure, Is to purg the body of the vitious sharp humors

mors every week or fortnight once, draw blood, keep good dyet and rest, it were good to used decoction of *China* and *Sarsaperilla* in the morning to provoke sweat, as also at meals. If that humor be retained and not purged away, it may ascend to the noble parts and suffocate the sick; for the help whereof Hippocrates counselleth the cauter actuall to be used and alledged to have often proved the same with good successe. I have oftentimes seen the cauter actuall used in the great Hospitall of Paris, but with small successe. When these excrescences or warts be but little & few in number. I have sometimes consumed them with powders, but such as are great and many in number, are to be knit with ligatours, as you have heard in the Chapter of *Paraulis*: if any thing rest after the ligatour, you shall consume it with caustick powders, waters, and other medicaments. After which method I did cure a singing Boy in Our Ladies Church at Paris, who was grievously handled with a Thyme about the whole fundament the space of three yeers, of the which I did heal him perfectly beyond the expectation of many.

CHAPTER XLVIII.

¶ Of the tumors in the Fundament called *Condiloma*, *Atrices*, and *Clausio*.

Definition. *Celsi li 6 ca 18 Aginita cap 8. lib 6. Fernel li 5 de simpt cap. 11. Gordo. part 5. tract 2.*

Condiloma is a certain excrescence of flesh, hard, tuberculous and membrainous in the brims or borders of the Fundament, sometimes accompanied with great humor, tumor, and swelling, sometime not swelled, and are called *Atrices*. The Cause is the weakneſſe, softneſſe, and low scituation of the part, also defluxion of humors which become rotten, for the which it is hard of curation. The Signes are manifest to the sight, accompanyed with great tumor and dolour. The Cure consisteth in good regiment of life, and rest, purging of the body chiefly with Glisters, bleeding

Cause. *Celsi loco citat.*

Signes.

Cure. *Paul li. 3. ca. 59*

bleeding in the arme to divert the humor and stop inflamation, use vomitories and things to provoke urine. The topicall remedies are to use linements refrigeratives in the beginning of oyl of Roses, *Cydoniorum*, whites of eggs, thereafter use remolliants & discutients: if it tend to suppuration, use such remedies as you have heard in others, putting therto a little *Tapsus Barbatus*. It must be opened in form circular, to the end the matter be not long retained, which easily causeth Fistula. If the excrescence be great and hard, it must be consumed with caustick instruments, as counselleth *Celsus*. Sometime the fundament is closed, as once I saw in the Country of *Picardy* of *France*, in the town of S. *Quintin*, where I did bring a woman to bed with two children, the one had an excrescence of flesh from the fundament, and did dye soon after it was born, the other had a membraine which did close the passage of the excrements. which I cut with a bistory and it healed very easily. This happeneth often to mayds in their naturall conduits, for the which doe the like, otherwise have your recourse to *Celsus*, or to my Book of the Infantment, where I have amply entreated of that matter.

Lib 6. cap. 18.
Paul. li 6 ca. 81
Alb li. 2. ca 78.
Lib 7 cap. 18

Chapter XLIX.

¶ Of the tumors in the Fundament, called *Hemorrhois*, and *Ragades*.

Definition.
Beu. li. 7 ca 15.
Ral li 9 ca 80
Al li 2 ca 81.
Ra li. 3 ca. 45

The Hemorrhoides are an infammation of some one of more of the four vaines which goe about the fundament, of which there are divers kinds, as sayth *Fernelius*: some are interne, which are not to be seen, others externe, some are swelled and doth avoyd no humor, but in tract of time return inwardly, sometime open and doe avoyd a boundance of melancholique blood which maketh great pain.

Cause. The Cause is great aboundance of melancholique, pituitous,

tous, or bilious blood, great usage of mordicant medicines.

The Signes; If the humor be cold, the sick feeleth great heavinesse, dolour, and trembling of the belly: if the humor be hot, there is great pulsation, evill colour of the face, and heavinesse of the eyes. *Gord part. 5. cap. 2.* Signes.

The Judgements, The disease is dangerous and difficile, in respect of the great evacuation which oftentimes ensueth and causeth Hydropsie, evill colour, and weaknesse of the body, which doe often end in *Fistula*: If they be suddenly stayed, they often doe ingender dangerous maladies, and sometimes death, by reason of the humor which taketh the course as to the liver, or lights, as saith Barta Pallia. If they avoyd moderately it is good, and doth preserve the sick from Melancholique, Leprosie Strangurie, paine in the sides, and inflamation of the Lungs, The naturall course of them is, to avoyde every moneth once, or at least foure or five times a yeare. Judgements. *Hip. li de Hemor. Ra li 9 ca 80.* *Barta Pallia.* *Hippo 6. epid.*

The Cure is somewhat difficile, the part being sensible and cold, having no force of it selfe, as also being in the part easie to receive fluxion of humors, and not easie to become unto at all times: yet the cure (in so much as may be) consisteth in good diyet, abstaining from all things of evill digestion, and which breed melantholie, next purge gently the body, bleed in the arme, if either they flow over moderately, or be painefull, also bleed the vaine Saphen: if they be tumified, apply an horse leach called by the Latines *Sanguisuga*, and that of such qualitie, as you may perceiv in the eight Treatise of this Booke, and use some medicaments to make them fall away, and to ease the paine, as cataplasmes, fomentations, halfe baths, or fallettes of Henbane, *Tapsus Barbatus*, Camomill, Violets, red Roses, Mallowes, Linseed, all sodden in milke and applyed on the part: also you may apply the yolke of an egge, Oyle of Roses, Rose water, and creame, after the foresaid manner. Sometime I have used with good successe Early flower mixed with Women or Goates milke, adding thereto a yolke of an egge, and a little Cure. *Celsi li 6 ca. 18* *Fuch lib 3. de meden. morb.* *Baptista Mantanus.* *Roger. tract. primr. ca 91.* *Ro. li. 3 ca. 45.*

a little Saffron, & apply it warme in forme of a cataplasme, with a band of three sheffs. Some for this purpose use hoggs dung hot on the part for the appeasing of the paine; or this, Take Sorrell, Violets, Henbane, of every one a little, well rosted under the ashes, thereafter beaten with a little hoggs grease and lay on the sore. If they avoyd immoderately, apply ventosies on the shoulders, with astringent and coraborrative plaisters, on the *Os sacrum* and fundament made of

Montanus. Sanguis draconis, Mastick, Mallowes, with the haires of an Hare cut very small, with a little powder of Roses, mixe all together with the white of an egge, and apply to the sore.

Pa.li.6. ca.79. If the paine be vehement and interne, take a tent wet in the aforesaid remedies and put into it, or this Unguent composed of *Rosat Mesues, Cerat galen,* and unguent *Commetissæ,* mixed together in a morter of Lead. Paulus doth counsell, when there are divers of those vaines, to leave one open for a space, in case the humor take the course to some

Lib de Hemor. noble part. *Hippocrates* saith, in old Hemorrhoides which have long run, if one be not left open, there will be danger of hydropsie and ptisick. There are divers other familiar remedies for this purpose, set down by divers old Writers,

Ragadiæ. *Ragadiæ* doth differ from *Hemorrhois,* in so farre as they are certaine excoriations, ulcers, or fissures, in the vaines or fundament, and are dolorons without tumor.

Pa.li 3 cap.59. The Cause are strokes, falls, or some sharp humor which corrodeth these parts: for the cure whereof foment the part

Roland. lib. 3. with warme Wine which doth comfort, next apply drying salves and unguents made thus, *Rec. Lathargyri auri & argenti, cerussæ lotæ, aloes lotæ, myrrhus, masticis, sarcocollæ, ballausti, & boli armenici an. unc. sem. pulverisentur & agitentur cum unguenta cemitissæ vel oleo rosa:* make an unguent and anoynt the part therewith.

CHAP-

CHAPTER L.

¶ Of the tumor in the Inteſtine when it falleth out, called by the Latines *Exitus Longanonis*, or *Ani Procedentia*

EXitus Longanonis, is the out-comming or turning over of the great inteſtine, which happeneth through the laxation of the muſcle Sphincter, which maketh it fall out and tumifie; it is common to young children. The Cauſe is externall, and internall: externall, are falls and ſtroaks, chiefly on the *Os ſacrum* ſitting on cold ſtones, great preſſing of the ſundament, and Apoſtumes which happen in thoſe parts. The internall Cauſe, Is great humiditie which relaxeth the muſcle, flure of the belly, and often preſſing to goe to ſtool, cheifly in thoſe who have the dyſentery. The Signes are apparant to the ſight. The Cure ſhall be in generall and particular remedies. The generall is good regiment of life, abſtaining from much drink, pottages, hearbs, fruits, and all meats, that engender great humiditie and raweneſſe, uſe gentle purgations that have the vertue to purge the weak raw humor. Sometimes it is long out, expoſed to the aire and tumified, ſo loath to be reduced: for the which you muſt foment it a little ſpace with warm milk. The particular remedies are to foment the part with Smiths water, and red wine, wherein ſhall be ſodden red Roſes, Myrtells, Centore, and Shepheards-purſe, *Baluſt, nux Cupreſſi*, Koch-Allom, ſeeth all together and foment the place: then annoynt it with oyl of Bayes, and Myrtels, and apply on it the powder of Maſtick, Myrrhe, and Nuts of Cyprus, thereafter cauſe the ſick to draw in his breath, ſo it ſhall be eaſily reduced; being put in, wet a cloth in the former fomentation and lay on it, then binde it for a certain ſpace. In going to ſtool beware in preſſing to ſore, neither goe to any wet privy, or any other part to expoſe you to.

Definition. *Rol. li 9 ca. 21.*

Cauſe. *Gord. part. 5.*

Signes.

Cure. *Celſ. li 7 ca 22.*

Faventinus de pueror. morb.

Arnald. lib 2. brevi. cap. 24.

to the cold, but keepe you alwaies warme: if for all this it heale not, have your recourse to my book of Infantment in the Chapter of the diseases of young Children. As for Paralysme in the fundament, it hath the like cause and cure as the former.

CHAPTER LI.

¶ Of the Periton, Epiplon, and Intestines.

FOrasmuch as in the Chapters next following I mind to entreat of such diseases as most commonly fall in the Cods, for the which it shal be requisite to shew somewhat briefly of the composition, situation, and office of such parts as most commonly doe cause certaine of these diseases, as also that the young Chirurgion may be the better instructed: For as sayth Galen, hard it is to cure any disease except first wee know the nature and situation of that part whereupon wee work, as also the cause of the disease; otherwise neither salv is able to prognosticate of the event, nor cure the same. Therefore I intend to begin at that tunick or membrain, which is the chief part whereof the three proper ruptures doe proceed, and is called *Peritoneon* in Greeke, and *Siphac* by the Arabians. It is subtil and strong and furnisheth a membrain to all the parts contained in the inferiour womb, for the which it is called *Peritoneos tunica seu membrana*, it is composed of two tunickes or membrains, and serveth for sundry uses. First, it serveth to cover al the parts of the inferiour belly, to wit, under *Diaphragma* or *septum transversum*: it doth separate all those parts from the Muscles of the Epigaster, it doth tye these parts together, and giveth a tunick or skinn to each one, it helpeth the descending of the excrements: some Anatomists be of opinion, that it is peirced through in that part which is neare the Inguina, by the which passage the spermatick vessels do descend to the testicles, also the intestines or

Gal li 5 an. & 5. de usu part

Gal li 4 de usu partium.

Diaphragma.

Gal li 1. de semine & 6 de adm. anato.

or *Omentum* to the cods. Next followeth that part which is called *Omentum* by the Latines, & *Epiploon* by the Greeks, in Arabick *Zirbu*. It is compoſed of two tunicks, which proceed from the *Periton* of divers veins, arteries & greace, it is extended upon all the inteſtines, & helpeth their concoction being weak and debill, it preſerveth the naturall heat in time of famine and hunger: it is tyed to the bottome of the ſtomack, and endeth at the *Oſpubis*, ſometimes it falleth in the *ſcrotum* as you ſhall hear in the proper Chapter. The Inteſtines or gouts, are called in Latine *Inteſtina*, and in Greek *Entera*: they are compoſed of two proper tunicks, beſides that which they take of the *Periton*. The proper tunick maketh the faculty expultrix more ſtrong, as alſo preſerveth the inteſtines from outward injury; the tunick exterior is membraneous, and the interior more fleſh. The Inteſtines are ſix in number, to wit, three ſmall to diſtribute the chile by the vains Meſeraicks to the vain port and liver, they have ſome vertue concoctrix, as alſo expultrix to expell the excrements: the three groſſe inteſtines are ſubject to receive the excrements, like as the bladder receiveth the urine. The firſt of the three ſmall inteſtines, is conveyed to the ventrick by the *Pylorus*, it is called *Ecphyſis*, which is, as if you would ſay, beginner of the inteſtines: it is called *Duodenum* becauſe it is 12 fingers in length, it goeth along the rigg back, and giveth place to the vain port, arteries, and nerves, and pores which containeth the choller. The ſecond Inteſtine, is called in Greek *Meſtis*, and in Latine *Jejunum*, becauſe it is ever empty, it receiveth the chile from the ſtomack next *Ecphyſis*, and diſtributeth it ſodainly to the liver, becauſe of the multitude of the meſeraick vains. The third ſmall Inteſtine is called *Ilion*, becauſe it is ſituated next theſe parts called *Ilia*, as alſo by reaſon of the Iliack paſſion, which happeneth in it: ſome doe call it *Miſerere mei*, or *volvulus*, when the ſick avoydeth the excrements at the mouth. It is reported by *Lonicerius*, that *Hippocrates* did dye of this diſeaſe. It maketh many circum-

Gal. 4. de uſu part. & 6. de anato.

Gal 4. & 5 de uſu part. & 6. de ana admin.

Gal li 6. locor. affect.

Miſerere mei. Hippocrates dyed of Miſerere mei. Lon. expl. mor.

circumvolutions, to the end it may retain the chile the longer, and maketh the better attraction of it to the meseraike vains. The fourth and first of the great Intestines, is called *Coecum*, because it hath entry and no issue that can bee perceived: it is apt to receive the excrements, and also the fecall matter in it is first formed: it is scituate on the right flancke called *Ilia* under it is the right nere: it doth fall oftentimes in the *Scrotum*, and is called by the vulgar Chyrurgions *Sacculus* or *Monoculus*. The first and second of the great intestines is called *Colon*, because it is greater and fleshier than any of the rest within, it is full of grease, it passeth from the right *Ilion*, to the left and bottome of the stomack, that oftentimes it touched the liver, and milt. Those who are vexed with the winde Cholique do often vomit, because it being tumified or swelled, doth press or compresse the bottome of the ventrick. The first and last of the great Intestines, is called *Rectum*, it lyeth right above the *Os sacrum*, and is an ample receptacle of the excrements, it doth extend to the fundament or *Anus*, & is called by the barbors *Longanum*, it hath certaine volutions: In this Intestine is dispiersed a vaine, arterie, and nerve of the first conjugation of the braines to give feeling: in the end of this gut there is a muscle called *Sphincter* or *Closer* to close and hold the excrements, till nature be willing to discharge them: if it be either debilitate or hurt, Man is ever compelled to goe to stoole as you have heard in *Fistula ani*.

Vasseus lib de anatom.

Gal. 3 9 26. de usu partium

Chapter LII.

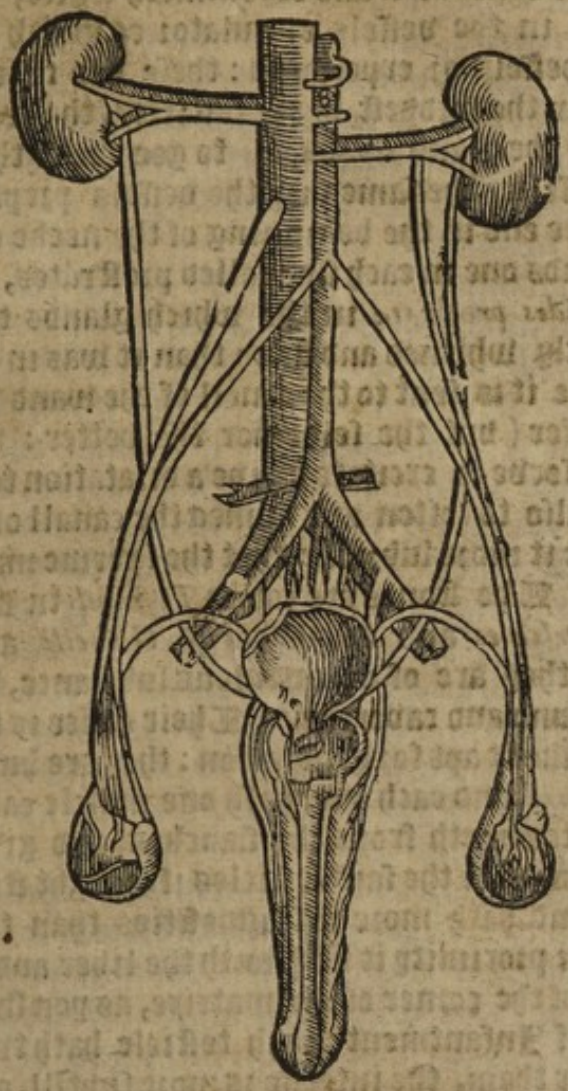
¶ Of the Spermatick Vessells and Stones.

The Vessels spermaticks are called in Latine *Vasa Seminaria* or *Seminalia*, they are long, large, and varitious, and are in number foure, to wit, two vaines, and two arteries: the right vaine commeth from the vaine cave, the left oftenest from the vaine emulgent: the arteries proceed from the great arterie called *Arteria aorta*.

Gal 4 de usu partium.

Their

Portraiture of the sparmatique Vessels and stones.



their office is to carry the blood and spirits to the testicles where they end, some call them *vasa præparantia.* The vain goeth above the artery, but not right line as other parts doe, but in anfractuosities, like unto a Woodbine or Vine-branch: in which anfractuosities or revolutions, the blood and spirit is carried to the stones, and is somewhat *Gal. li. de sem. & 14. usu par.*

prepared, before it enter in the said stones, where it taketh a more perfect concoction and becommeth white, thereafter it doth enter in the vessels ejaculatories which are named spermatick vessels or expellents: these doe take their beginning from the middest of the testicles, they rest and are holden up by the gland *Epididimis* to goe above the *Os pubis*, they doe passe up the same way the vessels preparants descend, they doe end in the beginning of the necke of the bladder in 2 glands one in each side called prostrates, & by *Herophilus, adenoides prostrata* in the which glands the seede is more perfectly whitned and fined than it was in the stones, from whence it is sent to the canell of the wand when occasion doth offer (but the seldomer the better:) these two glands doe serve to excitate & give a dilatation to the act venerian, as also to soften and bunnect the canall of the wand, and to make it more lubricke that the sperme may passe the more easily. The stones are called *Testiculi* in Latine, and in Greeke *Orschies*, and *Didymi, id est, Gemelli*, according to *Herophilus*, they are of a glandulous substance, soft, white coloured, round and cavernous. Their office is to boyle the seed, and make it apt for generation: they are hung without in the *Scrotum*, and each one, hath one muscle called *Suspensor*, which commeth from the flanckes, and giveth voluntary moovement to the said testicles: the right stone is more varicous, and hath more infractuosities than the left, it is hoter for the proximity it hath with the liver and so hath the right part of the corner of the matrix, as you shall heare in the Book of Infantment: each testicle hath two tunickes which cover them, the interne is more subtill, and is called by the Greekes *Erythroides*: the externe is stronger and doth adhere to the interior which is called *Dartos*.

Celsi li 7. ca. 18

Herophilus Gal lib. 2 de sem.

Celsi li 6 ca. 18

Herophilus. Gal li 14 de usu pa. & aph. 48. lib 5.

Constantine. Isidorus.

Gal. li. de defectu vulvæ.

CHAPTER LIII.

¶ Of the tumor in the Cods.

IN the Cods are scituate the Stones, which are ordained by nature for the generation of man, and are subject to divers

divers sorts of tumors and inflamations. Sometime the stones doe swell and tumifie to the bignesse of a Goose egg, accompanied with great dolour, heat, and hardnesse. The Causes are, Either Internall, or Externall: the externall, are streaks, falls, and application of such remedies which doe offend these parts: the internall cause, is defluxion of humors, which happeneth in the lower parts of our body, retention of a *Gonorhea* which is malignant: also when the seed is any wates out of the own domicils, and yet retained in the capacity, as happeneth sometime to young men in the night, so waking at the discharge of that humor doth retain it by force, which afterward doth rot and make defluxion on the stones as I have often seen. The Signes are inflamation, dolour, hardnesse, heavinesse, which may easily be perceived, great dolour of the muscle Suspensor, which giveth voluntary removement to the stones. The Judgements, If such tumors be not swiftly cured, the tumor doth sometime become hard and skirrous, which cannot be cured but by amputation, the which I have remarked within these thirty years. The Cure is generall and speciall: the generall, in good regiment of life, abstaining from strong drink, eating little and of good digestion, with moderate exercise, and bleeding the vain saphine, using of Glisters, and provoke urine. The topicall remedies differ not from other tumors: saving that we neither apply remolliants nor suppuratives without great consideration, but repercussives in the beginning, like as oyl of Roses, Vinegar, whites of Egges, and such like: or this, Take white bread, milk, whites of eggs, oyl of Rose, a little *Opium* and Saffron, of this make a cataplasm or plaister, and apply it to the sore: if it serve not, use this remedie that hath the vertue to repell and discusse the humor. *Rec. Radicum altheæ, & lini an. unc. 2 foliorum violarum, malvæ, parietariæ, plantaginis, hyosciami, an. man. 1 Camomellæ, Mileloti Rosarum siccarum an P. 1 coquantur in oximellite cum farina fabarum & hordei an. unc. sem.* If it turn to suppuration,

Gal. lib. de usu part. & artis med. cap 9.

Cause.

Langf. tract. 3.

Signes.

Judgements.

Cure.

Barta Pallia. Gordo. part. 7. cap. 6.

do as you have heard in other Apostumes, if by long delay the stone become altered, the best remedie is amputation: if vehement dolour, as often happeneth, apply on the sore *Cassia fistula*, or new chéese with a little Vinegar, which are things most anodine in such griefe: or this, Take *Ceratum refrigerans galeni unc.* 1 *Popullion* 2 *unc. nutriti unc. dimid.* mixe altogether and apply on the sore.

CHAPTER LIIII.

¶ Of *Hernies* in generall, which happen in the Inguina or Codds.

Gal tumor. cõtra cap. 18. Ætius serm. 14 cap 22, 23, 24.

LIke as in divers part of the body happeneth divers diseases, so in those parts there happeneth eight sorts of maladies commonly called Ruptures or Hernies, and are divided in propers and commons: the first of the propers is called *Bubonocele* or *Hernia incompleta*, that is, when the intestine or *Omentum* remaineth in the Inguina. The second kinde is called *Hernia* or *Ramex intestinalis*, which is, when the intestine falleth in the Cods. The third is called *Epiplocele* or *Hernia Zirbalis*, which is, when the call or *Omentum* falleth in the Cods. The first of the commons is called *Hydrocele* or *Hernia aquosa*, which is a watry humor in the Cods. The second is called *Physocele* or *Hernia ventosa*, which is a vapour or winde in the Cods. The third is called *Sarcocele* or *Hernia carnosa*, which is a schirrous or fleshy substance in the Cods. The fourth is called *Cirsocele* or *Hernia varicosa*, which is when the vains that nourish the Stone, are dilated and full of melancholique blood. The fift is called *Hernia humeralis*, which is when any defluxion of humors falleth on the Cods. Of all those sorts of Hernies you shall hear in the severall Chapters ensuing.

CHAP-

CHAPTER LV.

¶ Of the tumor Inguinall, called *Bubonocele*.

Bubonocele is a tumor in the flanck, either of the call or intestine, which happeneth through dilatation or ruption of the Periton, and is called by the Latines *Hernia Inguinalis*, or *Incompleta*. The Causes are externall or internall: the externall, are stroakes, leaping, wrastling, crying vomiting, coughing, ryding on hard trotting horses bearing of great burdens, violent using of women, or violent exercise, dilatation of the membraine in women through great travel in childe birth. The internall cause is usage of viscous and flatuous, great repletion of the belly, with aboundance of superfluous humors. The signes, if it come through relaxtion, the *Omentum* reduceth easily, if the intestine be fallen, you shall heare a noyse or bruit in the reduction, and it is dolorous. The Judgements, many doe die of this disease, the gut being forth of the production, and fileth full either of winde, or excrements, or both, which is so difficile and painfull to be reduced, that the sick dieth. The Cure, you must use first fomentations, remollients, and discutients, made thus: *Rec. Radicum altheæ, bryoniæ, cucumeris agrestis an. M. 1. florum, & foliorum cammomilli, meliloti, & rosarum an. P. 1. seminis altheæ, & fenugreci an. unc. sem. coquantur omnia in aqua aut lacte*, and foment the part with spunges. If by these remedies it reduce not, by reason of the aboundance of wind, you shal use 5 or 6 punctions in ye part with a needle, as I have often proved: it dispatcheth the wind, so the intestine doth the more easily reduce: if the excrements impasse the reduction being hard, you must incise the Periton, as is set down by *Rasis*: Thereafter use an emplaster astringent with a bandage for a certaine space, in so doing such as come by relaxation, doe sometime heale. Others which come by ruption, hardly doe heale: so the best remedy is to have a Trusse purposely made of cloth or yron.

Definition. *Celsi li 7. ca. 24*

Cause. *Avi. 22 ca. 3. Ætius serm 4. cap. 22. 23. & 24. Gordo. part. 7. cap. 7.*

Signes. *Avi. 22. ca. 3.*

Judgements. *Pa. li 6 ca. 66.*

Cure. *Arcu. 9 alman*

Ra. lib 9 ca. 39.

Portraiture of a man Rim-bursE.

Celſ. lib 7 cap. 20 & 24 Ro. li. 3. cap. 35

with an emplaſter aſtringent, and no other cure to be tempted. There are ſome ignorant covetous people, who take upon them to heale thus with two complytes by drinks, charmes, praying to Saints, going on pilgramage, which are all falacious and founded upon no reason. Others doe counſaile to cure thoſe Hernies by actuall cauters, as *Theodoricus*:

Theodoricus.

doricus : *Langfrancus* by potential cauter, *Bernardus* and *Rogerius* by wearing of the golden thread called *Punctus aureus*, which are all dangerous and uncertain wayes. *Langfrancus. Bernardus. Rodgerius.*

CHAPTER LVI.

¶ Of the Herne intestinall, called by the Greekes *Interocele.*

THis kinde of rupture is when the guts fall down in the cods, either through ruption or enlarging of the Peritoon where the spermaticke vessels doe passe, and where the muscles *Cremastres* do end, and the membraines *Dartos* and *Erethroides* begin, wherein the gut, call, or both doth fall. The causes are like unto *Bubonocéle*. The Signes is greatnesse, tumor inequall, sometime hard by reason of the fecall matter contained therein. The judgements are these, there is great inflammation, and the more you presse to reduction, the inflammation often is the greater : so that sometimes it changeth the colour red or blew, which are evill and deadly signes, sounding and avoyding the matter, are evil signs: and if the intestine be not reduced, the patient dyeth, which happeneth through the narrownesse of the dilation. As for the Cure, first purge the body with purgations, juleps, pils glisters, and such like, as shall be thought expedient by the skilfull Physition ; which being done, you shall come to the usage of topicall remedies, as first you shall rub the cods and parts adjacent with oile of Cammomile and Lyllies, also fomentations and cataplasmes, remollients, which shall be used for a space : thereafter lay the sick on his backe in such sort, that his arse be higher than his head, reducing the intestine by little & little with your hand, pressing most on the part where it descendeth : If the fecall matter let the reduction of it, you must use such remedy as is set down in the last Chapter, with Glisters to discharge the intestine, if by those remedies the intestine do not reduce, but the matter

Definition. *Baccha. lib. 2. de curan morb. Pa. ca. de rami. Faventin. de med. morb Pareus lib. 7.*

Cause. *Arcu Almans. Ætius serm. 14 cap 22.*

Signes.

Judgements. *Avic. 22 ca 2. Ætius serm. 14 cap. 4. Rol li. 3. ca. 39.*

Cure.

Theodor. lib. 3. cap. 35.

Avic serm. 22 tract. 3.

secall doe war hard with great dolour, you shall make incision in the upper side of the codd, eschewing the Intestine. Therafter put a little piece of wood up by the production of the Periton, néer unto the hole of dissent. The piece of wood must be round on the one side and flat on the other, whereon you shall make the rest of your incision, then rubb the inticed part & hole of dissent with a little oyl of Cammomill, or Lillies, which will make it lubrick, and cause it to reduce more easily. If then it reduce not, the Periton must be incised, and use the cauter Gastrorraphick, and handle it as other wounds: this operation must not be used but in great necessity, and the sick strong prognosticating of the danger, *Ne fefellisse aut ignorasse vide aris*: being reduced, it must with bandages and astringent fomentations be contained, with this emplaister upon Leather. *Rec. Emplastri contra rapturam unc. 2 Masticis unc. 1 unguenti comitissæ, desiccativi rubei, an. unc. sem. lapidis calaminaris in aceto extincti parum.* Or this, Take Bean-flower, and the bark of the Oke-tree, *Sanguis Draconis*, pouder of Sage, Rose, and Myrtilles, of every one a little, seeth all in smiths water, putting thereto a little Hogs grease, and lay it on the place in form of a plaister: in stead whereof, you may use *Emplastrum stricti cum paracelsi*, and keep the bed for the space of fortie dayes: also this emplaister written by George Cufuerus, which is, *Rec. Utriusq; consolidæ, lancelæ, plantaginis, Cariolæ, aresta bovis vel caudæ equinæ, sanguinariæ, pentaphilonis an. lib. sem. pullium, gallarum arabicarum, boli armenici, sanguis draconis, raberbarum, Glandium corticum medionorum Castaneæ, Virgæ pastoris, Lenticulæ, Masticis, Myrthi, Mummiæ, an. drag. sem. Sevi hirsini, Olei Rosacei, an. lib. 1 Misceant, fiat unguentum, & cum depositum fuerit ab igne, semper agitatur cum spatulæ, donec fiat bene incorporatum*, using in the mean time good dyet and of light digestion. Abstain from strong drink, weak, and windie meats, from hoisting, crying, or other violent motion, so farre as the patient may. In the mean time, keep open the

Alphon. ser. li de ligno sanct. Pa li. 61. ca. 65

Cels. lib. 7.

Cufuerius de morb pueror.

womb,

womb, and lye in such sort, that the head and shoulders be lower than the hanches and fundament: by these means sundry doe heal, when the dilatation or ruption is not great. In great dilations and people of elder age, I find no remedie, save only the bandage made of cloth with Cotton, Iron, or Stæl, as shall be most mæt: such people as doe ryde great Horses and are armed, are much subject to this disease, as I have often seen amongst the French, Almain, or Kysters Horse-men: who for the most part have their bandages of Iron, either for one side or for both. *Gord Prau. Favent. Vigo.*

In this disease there is great abuses committed by a number of un-skilfull ignorant people, void of all good conscience and fear of God, who for every simple kind of rupture, makes incision and cuts away the production of the Periton and Stone: if the dissent be on both sides, they cut off both the stones, which renders a Man sterile, and causeth the hair of the beard to fall: and if yong ones bee cut on both sides, they have no beard at all, besides they bee ever feeble and small voiced like unto women, as saith Aristotle. Besides that, oftentimes in cutting the sick dyeth, chiefly when the dilation is great. Sometimes the Intestine sticketh to the Periton, which they knit altogether, and cuts away the production; after the which the sick avoideth the excrements at the mouth, & dieth most miserably. The stones are ordained by God for generation of mankind, and are called by Aristotle and Galen principall members. Hesiodorus and Constantinus say, whosoever doe use these members lewdly and wilfully in fleshly liking, more than is graunted for lawfull generation, hee doth wrong to the Father of Light, and shall have no company with the blessed, but on the contrary the pains of hell, as saith Saint Ambrose. Then seeing the worthinesse of those parts, and the opinion which both the Divines and others of the learned, is thought of them; What shall we that are christians think of those ignorants, who altogether cut away all those parts without hope of recovery, and

Rol li 3 ca 35.

Aristotle.

Rol lib 3 cap. 35 & 36.

Bartholom.

Gal lib 2 de disso memb.

Hesiodorus.

Constantinus.

Ambrose.

and that for a little peece of mony. Such should be severaly punished, and not to have company with Christians. Yet perhaps some of these deceivers will say, that I speak for malice, because I cannot doe that operation: for answer to such, I have oftentimes seen that operation done, and have divers times done it my self, the which I doe now repent in committing such a haynous sin. For satisfaction of malitious people, who perhaps may think as those deceivers doe, I will in few terms set down the form of that operation. First, The body must be purged, and bleed if need require; the night before the work, the patient must eate little: the next morning about 8 or 9 hours the sick shall be laid uppon a board, in such sort, that his head and shoulders be lower than his bodie, so the Intestine shall reduce more easily, thereafter the sick his legs and thighs must be tyed fast to the said fourme or table, as also his hands, then reduce the intestine, *Omentum*, or both, within the belly, which being done, som one shall hold fast his two fingers upon the hole of discent, that it fall not, then the incisor shall stand at the side of the sick, and gripe the stone of the fore side, between the three formost fingers of the left hand, put it up almost to the hole of the dissent, and make it appeare upon the point of the middest finger, holding it fast betweene the other two fingers, then make your incision with a bistory or rasour upon the stone that is two inches large or thereabouts. Some doe use to make this incision lower downe in the cod, next pull out the testicle and separate the *Dydimus* from the *Scrotum* till such time as you come to the hole of dissent, taking heed in over-sore pulling, in case the nerves and muscles, Cremasters, receive inflamation, or convulsion, and death: being so conveyed neere the hole of dissent, you must with a strong thread in foure-folde well waxed, knit the production so fast as may be, to the end it let the filling from the testicle within an inch of that knot, cut off the production with the testicle, then make a little incision in the nether part of the *Scrotum*, that the

Haly Abbas. Rodgerius. Theodoricus. Al li. 2. cap. 65. Brunus. Rollandus.

the matter may evacuate more easily, then apply defensives, and astringents, stay the flux of blood by cauters actuals, as counsalleth Rolandus, then use embrocations and *Compressis* in Drecrate, with digestives and mundificatives till the thread fall. Therefore use incarnatives and conglutinatives, as in other wounds. If the Intestine or *Omentum* doe fall in the inner side, doe the like. Some use in place of this ligatour to sow the production with a needle and thread, thereafter doth cauterize the seaming, which oftentimes for hast or other violence, doth either slip or break, whereof come evill symptoms and often death. *Rollan. lib 3*

CHAPTER LVII.

¶ Of the rupture called *Epiplocele.*

Epiplocele is a dissent of the Caule or *Omentum* in the Cod or Inguina. The Cause is not different from the precedent, accompained with much humiditie in those parts. The Signes are like the former, saving that it is softer, not dolorous, yet more uneasie to reduce. The Cure is first in good diet, purge the body, and scituat the sick, as you have heard in *Interocele*: Reduce the *Epiploon*, then keepe his bed for a time: in the which he shall use fomentations astringent, with emplaisters upon Leather, made thus, Take the plaister called red desiccative, unguent *cometissæ*, and *contra rupturam*, of each two unc. powder of *Sanguis Draconis*, *Terra sigillata*, Mastick, Mirtils, Thurts, Nuts of Cyprous, and Pitch, of each a little, whites of Eggs so many as will make all in forme of plaister, of good consistance, remove it every six dayes once, and continue the fomentation ever a little before the applying of the plaister, this order would be observed a moneth or six weeks, in which time I have often found good successe, specially in young ones: if by those remedies you profit not, the bandage must ever be used, otherwise that miserable remedie commonly practised Charlitanes and quick-silvers, as you have heard in the last Chapter.

Definition. Cause. *Gelf. li 7 ca 21.* Signes. Cure. *George putorious.* *Gord part. 7. cap. 7.* *Vigo.* *Rol li 3. ca. 35.*

CHAP-

CHAPTER LVIII.

¶ Of the watry Hernie, called *Hydrocele* or *Hernia aquosa*.

Definition. *Pau li 6. ca. 62 Fu. lib 6 Chir. Alb. li 2 ca 62. Gal. lib. 3. de simp cau. ca. 2.*

Cause. *Ætius serm. 4 cap. 22.*

Signes.

Judgements. *Fac. li 3. dera*

George Piccorius.

Bac lib. citato. Ench. li. 3. de med morb, Faven. cap. de hernia aquosa Pau. li citato. Alb. lib. citato.

THe watry Herne is a tumor in the Cods, which groweth by little and little sometime to a great bignesse in the Cod, or betwéen the two membraines which cover the stones, called *Dartos* and *Erethroides*: sometime it is accompanied with the Gout, and is called *Hidrointerocele*. The Cause is like as you have heard in Hydropsie, and is an Hydropsie particular: somtime by strokes the vessels being rent, the blood doth change into a watry humor. The Signes are, The tumor is cléer, groweth long still in one estate, not painfull, heavie, sometime hard, and is knowne by holding the Cod betwéene your eye and the candle: it is sometime inclosed in a membraine, and appeareth to be a third testicle. The Judgements, some resolve, oftentimes the intestines falleth with it, chiefly in the left side, by reason the melt, which is full of cold melancholique humor, that oftentimes corrupt the testicle. As for the cure of such, the sick must be purged with fit medicines according to the nature of the humor, use meane exercise, and meats that be hot and dry in small quantitie, drink little, and hold the belly loose, sleepe not much, use diuretick things to provoke urine, and abstain from such things as provoke wind. The particular remedies are in using of fomentations, as in Hydropsie, next an astringant plaister made of red desiccative unguent *Commetisse*, with the powder of *Lapis calaminaris*, extinguished in Vinegar, Ocre. Balust, and Bol arminie, Allom, Mustard-séed, of Euphorbe, mixe all together with a little oyle of Cammomill, and lay on the sore. If those remedies suffice not, by reason of the great quantitie of water you must put a Seton through the lowest part of the Codde, and draw it a little twice a day, till the humor be evacuated.

If

If the humor be in the membrains, that cover the Stones, make incision in the side of the Cod, eschewing the testicle, put in a tent and dresse it twice a day, keep it open till the humor be evacuated, use remedies anodines to appease the dolour, and cicatrize it as other wounds. *Theodor lib. 13. cap. 36.*

CHAPTER LIX.

¶ Of the windie Hernie, called *Physocele.* or *Pneumatocele.*

THis Hernie is a collection of winde in the *Scrotum*, it causeth by an imbecility of naturall heat in those parts, and over much phlegmatick matter, with such other causes as you have heard in windy Apostumes. The Signes, The tumor is somewhat hard, light, round, suddenly ingendered, possessing for the most part the whole *Scrotum* and wand, resisting to touch, clear like unto a bladder full of winde: the yard greater in one place than in another. The Judgements, If this vapour doth not dissipate, it causeth many evills: sometimes it doth possesse the whole body, and proceedeth often of matter venomous. The Cure shall be first in good dyet, as in *Oedema*; next apply on the place things resolatives, as this fomentation in the beginning, thus made, *Rec. Origani, Calaminthi, Savinæ, Salviæ, Betonicæ, Rutæ, Cammomillæ, an. M. sem. Concundantur, & bulliant in Posca, hoc est, in vini & aqua æqualibus partibus, ad consumptionem tertiæ partis, fiat fomentatio cum spungiis.* After the which anoynt the part with oyl of *Euphorbe* and *Sambucini.* Some allow the plaister of *Vigo* with Mercurie or *Diapalma* mixed with Wine: also the dregs of Claret wine boyled with bran, and lay it warm to the place: if the windy tumor be with dolour and inflamation, you shall use anodines and resolatives, with such emplaister as hath the vertue to soften and resolve, and not use infusion as some doe allow.

Definition. Cause. *Gal li 6. mor. & simp.* Signes. Judgements. *Pa li 6 cap 64.* Cure. *Faven de morb. morb cap. de hernia aquosa. Vid li 3 ca. 4.* *Ab. li 1. ca 66.*

CHAP-

CHAPTER LX.

¶ Of the Herne *Carnosa*, called *Sarcocele*

Definition. *Paul. li 6. ca 63. Faventin. de med. morb.*

Sarcocele is a tumor in the Codd, and sometime in the membrain *Dartos* and *Erethroides* chiefly about the stones, like a schirrous tumor, accompanied with vains varicous.

Cause. *Al li 2 ca. 63 Vig li. 2. ca. 6.*

The Cause, Is aboundance of grosse humors in those parts, which often corrupteth the testicle, and last degendereth into an hard fleshly disposition.

Signes. *Guid. part. 7*

The Signes, are unequall tumor, hard, alwayes in one estate, dolorous, and being touched (all which is in the testicle) doth move.

Judgements. *Guido.*

The Judgements, when it happeneth in yong ones, and handled in the beginning, sometime doth heal, but for common it is most difficile, and of all the eight kinds is worst.

Gal 14 meth: cap 7.

If by feeling of it at the uppermost part of the Dydim it seemeth unnaturall great, the tumor is incurable, and better not to touch it than to attempt any cure:

Cure. *Vig. li. 2 ca 38 Celf li. 7 ca 23 Theol. li. 3. c. 36 Gal. loco citat. Arno. de villa nova de mala complexione Petrus Franco de Hernia.*

if you finde the Dydim small, there is some hope of cure, for the which wee must scituate the sick as you have heard, next make the incision in the upper part of the Codd, knit the Dydim and canterize it, as in *Interocele* you have heard, you must cut a little above the excrescence, for often it is residue, if any portion remain: if it adhere to the Codd, separate it, and cut of the testicle with the excrescence: if after the incision there cometh inflamation and dolour, let the patient bleed, and rest 5 or 6 daies, so leave the cure to give order to the accidents.

CHAPTER LXI.

¶ Of the Herne *Varicous*, called *Cirsocele*.

Definition. *Pau li 6 ca 64 Bac. de consensu medic.*

Cirsocele, is a tumor and dilatation of the vains that nourisheth the testicles, which with their membrains are full of melancholique blood.

Cause.

The Cause, Is some grosse humor or melancholique blood gathered in the part, by reason of

of the debilitie, lownesse of the part, & heavinesse of the humor, The Signes, is repletion of the vaines, which sometimes be few in number. otherwhiles many, and are wrapt together like unto a vine branch, soft to touch, and returneth into the belly by pressing on the Didim. The Judgements are, it is without dolour, most dangerous and difficile to be cured, as you shall heare in the varicies of the legges. The Cure, shall be first in purging the body of melancholy, and bleed if need be, next use emplaisters and cerats, as are at length set downe by *Vigo lib.* 2. If by that you profit not, you must make incision in the *Scrotum* the breadth of two fingers, in the place of the varice, thereafter passe two Needles with double thread under the varice, one in the upper part of the wound, another in the lower, leaving an inch or thereby betwixt, then open the varice, and evacuat the humor contained. If there be divers doe the like, which being done, knit fast the thread, and handle the wound as others, till the threads fall. If the testicle be incersed with many vaines, accompanied with dolour that it may not be handled, this way the Didim must be cut, and proceede in the cure as in the Chapter precedent you have heard.

Gal. li. tumor.
Signes.
Judgements.
Gord. part. cap. 7.
Bacchu. lib. 3.

CHAPTER LXII.

¶ Of the Hernies humerall.

HE*rnia humeralis*, is an Apostume and defluxion of humors in the Cod or membraines that cover the testicles, or in their proper substance The cause is not different from other Apostumes, neither the Signes. The Judgements, such are long in healing, the part being cold and membranous, the tumor sometime suppureth, otherwhiles resolveth: If it continu long, it corrupteth the testicle. The Cure, The sick shall be purged by Glisters or otherwise, bleede, rest, and weare a trusse to hold up the testicles, and dresse it according to the nature of the humor and accidents, after

Definition.
Cause.
Signes.
Judgements.
Cure.
Rol li 3 ca 38.

after the method set down in the generall Chapter of Apostumes. If it tend to suppuration, make your incision in the side of the Cod, as was shewed in *Hydrocele*, then cleanse the ulcer and consolidate the wound. If there remain hardnes, you shall (as counsaileth Avicen) take branne or grate wheat and boyle in Drymel, in the which hath bene boyled a little Amoniacke and apply it warm, and remove it twice every day; and thus much touching the eight kindes of *Hernes*.

Rel lib. 3 ca 37

Chapter LXIII.

¶ Of the Bladder, and the diseases. which happen in it.

Arist 2. phis.

Forasmuch as every Articen ought to consider the matter and forme of that he is to worke upon: even so ought we to know that whereof we are to speake, which is the bladder called *Cistis* in Greeke, and *Vesica* in Latine. Hesiodorus and Constantine doe say, that it hath that name for the taking and receiving of the water. Aristotle saith, that every beast that hath loynes, doth much thirst, and needeth rather moyst meat than dry, to such the bladder is needfull: also those beasts which have feathers and skales, have no bladder, for in such the weake superfluitie doth nourish the skales. The bladder is composed of two tunickes, the one is proper to it selfe, the other it hath from the Periton: also three kindes of Fibres, which are Rights, Obliques, and Transversels with six great vessels set in the neck thereof, to wit, three in each side, a vain, from the vaine cave, to give nourishment; an arterie, from the great arterie, to give life, with a nerve to give feeling. The bladder is situate in man between the *Os pubis* and intestine, and in women betweene *Os pubis* and matrix. It hath one muscle called Sphincter, composed of *Fibris transversis*, which serve for three utilities: the first is, that there remaine nothing in the conduit: the

Hesiodorus. Constantine. Arist li 3 phis.

Gal de facul natu. & 5. de usu partium.

the second, it helpeth to close the mouth of the bladder: the third hasteneth the expulsion of the excrescence. The bladder is a part very worthy for many respects, yet subject to sundry griefes, like as ulcers, paralisie, the stone, carnosity, Apostumes, cankers, fistules, and divers others. In it al kind of ulcers doe engender, as in other parts: of which some happen within the capacity or body, others in the neck where the urine doth passe. The causes proceede of heate or inflamation in those parts by the acrimony of the humor, stone, sand, flyms, or sharpe humor which hath the vertue to excoriate and corrode: also by some virulent humor or gonorrhea, as you shall heare in my Book of the Spanish or French sicknesse. The Signes of those which is in the bottome of the bladder, is continuall dolour at ye *Peroneum* or *Os pubis*, abundance of rotten matter which floweth: also many little pelliculs like threads of wooll, which ever comes with the water: if the ulcer be in the neck of the bladder, as often happeneth, the dolour is not great, except in the time of water-making, and a little after, & the more sharpe and hote the watter is, the greater is the paine, tention, or erection of the wand, avoyding a sanious matter, either with or after the water. The Judgements, al ulcers in the bottome of the bladder, are either incurable, or at the least hardly doe receive any cure, being a part membrainous, and some water ever remaining, which both doth augment the ulcer and impasse the conglutination. Of the which if the sick become leane & atrofied, specially in the thighes, death doth hastily approach. Some ulcers do happen in the neck of the bladder: of which, some are curable, others very difficile, by reason of the continual passage of the water. The Cure consisteth in generall and particular remedies, as in good forme of diet, abstaining from things of evil digestion, and ingendereth wind, from all soure, sharpe, bitter, salt, and hote things, from wine and all such things as hath the vertue to make ye blood subtil, eat bread of good white wheat wel baked, tender flesh, as Mutton, Veale, Kidde, feete of

Cause.

Signes.

Judgements. *Hip. li. 6 ca. 18*

Cure. *Rux de curan. morbis.*

Calves, or Mutton, young foules, and such like brothes of fowles or Mutton, with Plumdamas, Lettice, Poppie, and others of like quality, hold the belly ever loose, either with purgations or glissers, the glister may be thus made, take a sheepes head, and seeth it till the flesh come from the bones, then seeth in that broth flowers of Cammomill, Melilot, & Mallowes, of each one handfull, take a pound of that decoction, with two yolks of egs, and some common oyle, and make a Glister, which may be used eyther in the morning or a little after Supper. In like manner this *Bolus* may be used every eight dayes once, made thus, take *Cassia fistula* recently drawn out of the Reed 8 drams, Rubarbe subtilly pulverisied 2 drams, the electuary of Dragagant, of the which you may make a *Bolus*, thereafter rest a day or two, then take Terebinthine of Venice 3 drams, that is well washed in water of Ciccory, Rose, Paritary, or Scabious, which may be taken in Boll with powder of Liccorysse, or dissolved with the yolke of a new laid eg, and white wine, or Cowes milke, then use this injection three or four times a day with a Syringe thus composed, take red Roses, Plantine, Barley and Absynth, of each a handfull, Centory halfe a handfull, make a decoction to the quantity of a pound, in the which you shall dissolve 2 ounces of hony of Roses. After you have used this a certaine time, you may use this, Dissolve in the former decoction, Alloes 2 drams, Myrrhe 1 dram, *Aristolocea rotunda* in powder, 1 dram and a halfe, of the which you shall make injection and use three or foure times a day: Then use things to dry, conglutinate, and pacifie paine, amongst the which I have found great effects in this which I call *Aqua cælestis*, and doe commonly use it in such cases: the forme whereof is this, Take a quantity of whites of egs, and beat them long in a bason, then let them stand a little til the water remaine at the ground, then mixe as much Plantine and Rose-water, with a little Camphire and Trosiques of *Rasis*, or in place of these Trosiques, a little Lytharge of Gold, Ceruse, and a little

Bolus.

Injection in the neck of the Bladder.

Consilia Fennel

Injection called *Aqua cælestis*.

a little Bol armenie, with a very small quantitie of green Copperisse subtilly pulverished, passe it through a cloth and make your injection, the which may be continued till the ulcer be whole. If at any time the pain be sore, you shall make injection with a little warm milk. As for Paralisie, or weaknesse in the neck of the bladder, you shall use fomentations, nervals, emplaisters, and linements, which have the vertue to corroborate and comfort. Also you may use the balm of John de Vigo, and Guydo *ad Paralysme*, with such other remedies, as you shall hear in the generall chapter of Wounds, intreating of that matter. As touching the extraction of the stone, it requireth a long discourse, for the which I mean to deferre it to the Poor Mans guid. In the mean time, the skilfull Chyrurgion may take advice with Marianus Sanctus, Pareus, Petrus Franco, and divers others, who have learnedly written of that matter.

Balme of *John de Vigo.*

CHAPTER LXIIII.

¶ Of the Wand or Yard, and certain Diseases incident to it.

IT is said by the learned Philopher, that Man doth many wates passe Women, but chiefly in one particular member, which is called by the Greeks *Caulos*, and by the Latines *Mentula* or *Virga*, it is a part nervous, ligamentous, concave or fistolous, composed of a spongious flesh: It is scituate on the neck of the bladder, and hath the originall from the *Os pubis*, in it is the conduit of the seede and urine, upon the which there is a concave nerve, which being full of spirits or wind, doth make the erection of the wand, it hath vaines and arteries, with three muscles one on ech side, and the third in the middest, which do goe to the midst of the Prepuce, and doth hold the wand streight after the erection in time of copulation: the top of it is ever of one bignesse, and is called by the Greekes *Balanus*, and by the

Gal li 5. & 16 de usu par & 6 loc. affect. ca. 6.

Gal. 14 de usu partium.

Latines *Glans* : in the which gland the nerve cavernou doth not enter, it hath a little skinn that covereth it called *Preputium* : yet Aristotle is of opinion, that that skinn hath no name. The wand is one of the cheif instruments that serveth for generation, and is subject to divers diseases, like as tumors, inflamation, Apostumes, Windes, Ulcers, Cankers, and such like, for the which have your recourse to the proper chapter intreating of those things. It is likewise subject to carnosities, with certain ulcers and other affections, as you shall hear in the next Chapter. The carnositie or caruncle is an excrescence of superfluous flesh that groweth in divers parts of the cancll of the wand, and neck of the bladder, impassing the free passage of the seed in Man, and urine in both sex. The Cause proceedeth by hot inflamation or ulcer in those parts ; also by heat and acrimonie of the water, by sands, stone, rotten slime, or filthy humor, but oftennest by a sharp bitter humor which distilleth from the glands prostrates, which doth excoriate & corrode these parts. Sometime it doth proceed of a malignant rotten virulent humor, as you shall hear in the Book of the French sicknesse. The Signes are known by the sound or Catheter ; also by the difficultie and stopping of the water, which sometimes cometh forth like a small thread, otherwhiles forked, with two branches, at times it doth issue, drop, and drop with such vehement dolour and presse, that oftentimes the excrements doe avoid. The Judgements, they never doe heal of themselves, and are very difficile to be cured with medicaments, chiefly such as are old, callous, and hard. The Cure consisteth, First in purgations and bleeding, specially of the caruncle it self, the bleeding doth discharge it: also in the usage of things that have the vertue to correct the acrimony or heat of the urine ; next, if it be hard and callous, you must use fomentations, linements, cataplasms, and plaisters to soften it, as you shall hear at length in my Book of the French sicknesse. The fomentation or cataplasms be made of Althea, Letice, Bryone,

Gal. lib. 6 ca 6 loco affect. & li. 2 de sem. & 14 de usu par.

Gal. li. de locis affectis.

Cause.

Signes.

Judgements.

Alphon. Ferrus.

Cure.

Bryone, Violets and Paritare, Lyntseed, Fenegreke, flowers of Cammomill and Melilot, boyle all in water or Milke, and foment with sponges morning and evening: that being done, dry the part and annoynt it with this lineament made of *Axungia humana, unguenti de Althea, Agrippa* mixed with oyle of Cammomill and Lyllies, using sometime the plaister of *Vigo sine Mercurio*. The caruncle being so softned and prepared, it must be corrected and taken away with medicaments proper for that effect, as thus, take the unguent of *Rosatum, Mesnes*, halfe an ounce, powder of *Allumen ustum*, Mercurie, Savine and Dcar, of each a little, mixe all together and make an Unguent: also the scumme of honey, being burnt and put in powder, and mixed with a little Cerote or oyle of Wax, doth in short time consume the caruncle, being applyed thereto: Also *Pompholigos* well washed and mixed with a little Savine and Dcre well pulverished, burnt shelles of Eggs, *Autimonij crudi*, and *Album Rasis*, well pulverished and mixed together: for this purpose I commonly use *Rosat Mesnes*, with a little Sublime, and doe apply it upon a little Ware candle, to the bignesse of a little rush, which somtime must be inrolled with a fine small linnen cloth, thereafter annoynt it with the said unguent: the cloth causeth the unguent to adhere better than the simple candle, til it come to the place of excrescence or carnosity. I doe often times use in the place of this candle a little tent made like to a point horn of fine linnen cloth, sewed with a needle and small thread, of the which there must a portion remain at the said tent, to pull it out if need be. After it be thrust unto the part affected, with a long small sound of silver: this tent doe I annoynt with one of the foresaid unguents, and dresse it twice or thrice a day. If the caruncle be painfull, I make the unguent more weake, in adding fewer of the powders, and sometimes using injections that have the virtu to pacify the pain, which sometime may be done with warme milke only. This method doe I follow untill the caruncle be consumed, there

Divers remedies to consume the Caruncle.

after with dying unguents and injections I drie and sicatrize these ulcers. For the which purpose I do commonly use the water set down in the last chapter called *Aqua celestis*; by these means I have cured sundry: Divers other remedies you may find in my Book of the French sicknesse in the Chapter of Caruncle.

CHAPTER LXV.

¶ Of certain other Diseases of the Wand.

BESides such diseases as you have heard in the precedent Chapter, there happeneth likewise certain other diseases, like as closing of the prepuce called *Phymosis*, retraction, or shortning of the ligament called *Caninum vinculum*, Warts, Tumors, Glandules, involuntary erection called *Priapismus*; Of ꝑ which (all) I shall briefly speak, beginning at the closing of the prepuce, which hapneth either by nature from the first confirmation, or by accident, like as siccatrizes of ulcers, of the prepuce that covereth the Wand head, when it is altogether closed, or at the least hath so little passage, that neither seed nor urine can freely passe, nor the gland called *Balanus* be discovered. The Cure shall be to open and dilate the prepuce with the poynt of a sharp chizell or bistorie, then hold a tent of lead or tree in it for certain daies, that it conglutinate againe, anoint alwaies the tent with oyl of sweet Almonds: sometime it happeneth that Children are born, and the fundament close, which likewise must be cut or rent with the fingers, such children are of short daies. I have seen the hole of the prepuce lower than the point of the gland, which made that the seed could not go right to the matrix, neither the urine avoid directly away, except the Wand had been turned upward toward the belly part. For the Cure whereof I have dilated or insisted that part, to the place where naturally it should be, and hold it dilated for a while, & cure it as other simple wounds: it happeneth also that sometimes the lyget called the bridle

Phymosis.
Ada. Lonicer. expli. morb.
Signes.
Alb. li 2. ca. 55.
Haly Abbas.
Cure
Cels. li 7 ca 25
Pa. li 6 ca. 54

of

of the wand is so shortned, that it maketh the wand to turne back and not straight, in such sort, as it were a convulsion: the which impasseth the seed to go rightly to the mother: for the cure of this, the ligament must be cut as that of the tong in yong children, and cure it as other simple wounds: sometime betwixt the prepuce & *Balanus*, there are excrescences or sundry warts which doe proceede in having company with women in time of their moneths, for taking away whereof, you must use powder of Savine, & Dcre, well dried and subtilly pulverished. Sometime there happeneth little tumors glandulous outwardly by the side of the prepuce, to the bigneste of a Racket or Tennise ball, impassing in any sort the company with women, such must be knit with a ligatour, as you have heard in the Chapter of *Paraulis*. The involuntary erection of the wand, called by the Latine *Priapismus*, which is a disease contrary to *Satiriasis*: for *Satiriasis* is a continual erection of the wand with delight of concupiscence: and *Priapismus* is an erection without appetite or carnal lust. It doth proceed of wind or vaporous spirit in ths nerve cavernous of the yarde, or by the dilation of the artier thereof; also by lying on soft beds chiefly on the back, eating and drinking of vaporous things. Also by thicknes and closenes of the pores, it is most dangerous if speedy remedy be not had. For the Cure, purge, draw blood, abstain from strong drinke, and all such things as engender winds or vapours, annoynt the yard and reines with juyces of cold haerbs, cold lineaments made of *Cerat galen*, *sanguis draconis*, *sempervivum*, vinegar and such like: apply to the loynes a cake of lead annoynted with quick-silver, foment the yard with decoction of *Agnus castus*, Roses Camomill, Penyroyall and Melilot, with such other remedies as is set downe in the Chapter of windy tumors. Divers other remedies for this purpose, are set downe by *Galen* 14. *method. cap.* 8. & 9. *de composit. medicam. cap.* 9. *Ætius serm.* 8. *cap.* 32. *Avicen fol.* 20. *cap.* 29. and divers other old writers.

Tra. li. 9. ca 9.

Pau. li 6. ca. 59
Pau li. 3. ca 56
Tra li 9. ca. 10.
Gal. li 6. de male affect. loc. cap. 6.

Cure.

Gord. part. 7.

Chapter LXVI.

¶ Of the Tumor in the Inguine or Liske, called *Bubo*.

Definition. *Gal. li. 5. ca. tu. & 2. ad glau. & 3. meth.*

THis word *Bubo*, is taken in this place for that tumor which is betwixt the thigh and the body, called in Latine *Inguen* in the which place there is sundry little kirnels or glands, which sometime doe swell & tumifie.

Cause.

The Cause is a desluxion of humors in those parts, violent exercise strokes, crysis of maladies, dolours, or ulcers in the thigh, legge, or féete.

Judgements. *Gal. 13. meth.*

The Judgements, such as happen by cryse of sicknesse, are difficile, but if neither fever, nor vapour venomous hath proceeded, it is more easie to be helped.

Cure.

As for the Cure, sometime it doth resolve, otherwhils it suppurateth, for the which follow that Cure which you have heard in the Chapter of *Scrophula*, and other Apostumes which happen in parts glandulous. There be other certain glands a little lower down in the thigh, where ordinarily doth engender the Plague, whereof (God willing) you shall heare the Cure in the Booke of the Plagur.

Chapter LXVII.

¶ Of the Tumor or pain in the Hanch or Huccle bone, called *Ciatica*.

THis disease (which commonly doth possesse the joynts, by the falling of some humor above nature betwixt the joynt bones) is called by the Latines *Morbus articularis*, and in vulgar the Gout, of the which there be divers kinds and names according to the joint which is diseased, as for example: that which occupieth the jawes, is called *Schiagonogra*: if in the Neck, it is called *Trahelagra*: in the Backe, it is called *Rachiragra*: that in the shoulders is called *Omogra*: that in the Clavicules, is called *Clersagra*:

that

that in the elbow is called *Pethyagra*, that in the hands is called *Cheiragra*, that in the foot is called *Podagra*, and that in the Hanch is called *Ischias*, that in the knées is called *Gonagra*: here I shall content me only to speak of the last two, because they be most common, the others I leave to the learned Physition, as matters more Physicall than Chyrurgicall. The disease which is called *Sciatica* proceedeth partly by the usage of such meats as ingendereth Phlegmatique humors, also a defluxion of grosse congealed humor, which possesseth the joint of the hanch bone, which partly doth proceed for want of exercise, as also sometime by immoderate using of women, stopping of the hemorrhoides or monethly courses.

Apho. 6 & com. 49.

Definition. *Pa li. 3. ca 77.* Cause.

The Cure, Is first in good dyet, using things of good and easie digestion, purging the grosse phlegmatique humors by laxatives and vomiters, letting blood of the Saphin vain of the fore side, application of fomentations, apparatives and resolatives on the part, ventosies, with scarrifications, vescicatories good to break the skinn, with such plasters and linements that have the vertue to heat and resolve: in the mean time keep ever the belly lose, with moderate exercise. To some persons I have used decoctions sudorifick made of *Gaiac* and *Salsa parilla* morning and evening for a certain time, which doth provoke sweat: after the which the body being well dryed, I have ever used this linement, to wit, *Rec. Axungiæ humanæ, anseris, Gallinæ, medullæ cruris vituli, cervi & bovis, an. unc. 2 olei vulpini, unc. 32 liquefiant simul cum aqua salviæ chimici ive arthetice an. drag. 1 sem. olei de cera drag. 1 misce simul adde sub finem aquæ vitæ unc. sem. fiat lirementum*, wherewith you shall anoint the hanch, thigh, and leg, apply above it black sheeps woll, as it commeth from the sheep: by the continuing of this certain dayes, I have cured divers: also oyle wherein Frogs have beene boyled till the flesh be separate from the bones, with the which oyle rub and annoynt the sore place, which is an excellent remedy as saith *Mizaldus*.

Cure.

Mizaldus.

To others in whom those remedies have not profited, I hav applyed cauters either in the inside or outside of the leg under the knée, containing a bullet or pie therein for a time, till the humor did evacuate and the sick become well: some doe use to apply two or thrée cauters on the sore part, by the which meanes divers times I have found good successe. Sundry other remedies are set down by the learned, but by these onely have I ever found best helpe.

Rol. li 4 ca. 12

CHAPTER LXVIII.

¶ Of the tumor or pain in the Knees.

Gal com. in apho 74. li 4. & 6 epid.

Cause.

Signes.

Judgements.

Hippo Prog.

Cels li 4 ca. 23.

THe tumor or paine in the knée doth proceed either of congestion, defluxion of humors, or by strokes, falls, crysis of sicknesse, long travell, ryding, heat, cold, or by long diseases. The Signes, are manifest. The Judgements, such as happen after long sicknesse, are difficile and dangerous, or at the least long in healing: the legge and the thigh ostentimes become atrofied, extenuat, painfull, and dolorous, the humor being either hote or cold, sometime there is virulencie and malignitie in the humor, which is under the little bone of the knée called *Rotula* which sometime causeth the joynt to disjoyne, and the *Rotula* turn quite over, as once I did sée at Paris. The Cure whereof did consist in universall and particular remedies: the universall shall be according to the qualitie of the humor, as is set down in the generall Chapter of tumors. The topicall or particular remedies shall be in the usage of repercussives, discutients, and drying things, according to the nature of the part, which shall be distinguished according to the degrees of the Apostume, as you have heard in Phlegmon. If it tend to suppuration, beware to open it, it is forbidden by our ancients to make deepe incisions under the Rotule of the knée, because those parts are both sensible and painfull, and ostentimes evill accidents ensue; so you shall use remedies corroboratives,

Cure.

Avicen: Henricus.

roboratives, and anodines, evacuating the matter, and siccatrizing the wound, as you have heard in others. Sometime the tumor is engendered of winde: if so be, you shall cure it as you have heard in watry and windy Tumors.

CHAPTER LXIX.

¶ Of the tumor in the vains of the Leggs, which is called *Varix*, and by the Greeks *Cirsos*.

Varix is a dilatation of the vain, greater than naturall it should be, which happeneth in divers parts of the body, as on the temples, belly, under the navill, on the testicles and matrix, but chiefly in the leggs, and happeneth sometime in one vain only, otherwhiles in divers together, tumified and full of a thick burnt melancholick blood, letting the action of the place. The Cause is aboundance of melancholeus humor, retention of moneths in women, and hemorrhoides in both sexes, which dilateth the vains, and sometime doth break them, as happeneth sometime to women in their travell, the which I have entreated at length in my Booke of the diseases of women. It procedeth also of vehement exercise, as leaping, wrestling, carrying of great burdens, strokes, falls, torments, and too much standing, great travelling on foote, and such like. The Signes are perceived by the greatnesse of the vaine, which commonly are more tumified and blacker then the naturall. The Judgements, such as are intern are incurable, so not to be touched, because it letteth the fluxion, so remaineth and goeth to the noble parts, causeth great accidents, they entertaine old ulcers, and letteth the cure of them. The Cure, is first in good dyet, abstayning from things that ingender melancholy: som doe use when the varices are little only, to comfort the part that the humor descend not, neither be so easily received by the part: also to apply playsters above the

Definition. *Pa li.6 ca. 82. Tebot. li. 3 of Ornament. Loni. expl. ver.*

Cause. *Avinzor.*

Signes.

Judgement. *Gordo part. 7. cap. 20.*

Cure. *Rasis lib 9.*

Rolandus.

Pa. loco citato. the knée, to intercept the humor made of Bol arminie, *Terra sigillata*, Nuts of Cyprus, Gauls, *Hypecistis*, Incense, Dragagant, Barley, or Bean-flower: also the plaister called *Contra rupturam* is very good, with the usages of strait bandages from the foot to the knée, sopped in sad Claret Wine, or some decoction astringent: let the sick use little Celf. li. 7. ca 31. travell, hold up the legs: if by those remedies the disease cure not, some counsaile to incise them in divers places, according to the circumvolutions, and let them bléed to the force of the sick, then close them up and bind the wound with a compresse and band wet in Claret wine and water, and handle the wound as other bléedings: but before you bléed, you must foment the legg with hot water, to make the grosse thick melancholick blood become more thinn, as also to make the vains more tumified resting that day, and if they doe swell again, doe the like within two or thrée daies after, the place alwaies being first marked with a little inke on the skin above the vain, thereafter take up the skin with Fuch li. 7. de med. morb. cap. 8. Che. li. 1. ca. 58 thy hand to discover the vain: make the incision in the middest thereof, then let the gripe goe that the vain may be séen; then passe two nédles as you have heard in the herne varicous, let it bléed a quantitie, tye it fast, let the thread fall off it self without drawing of it by force, and cure the wound as others. Some for this purpose doe use the actuall cauter, whereof I have found evill inconveniences to ensue, for the which I use only to apply a potentiall cauter above the skin in the varice, which doth not only burn the skin, but also the varice, which done, I let the escharre to fall off it self, without any applying of medicament or instrument, save only a little fresh butter, untill the escharre fall, and the vain conglutinate of it self, as I have often proved.

CHAP-

CHAPTER LXX.

¶ Of the little tumor in the Leggs, called *Dracunculus*.

DRacumculus is a tumor or extraordinary dolour that is bred in the leggs or armes, and is called *Draguneus*. Yet divers Authors have given it divers names, as Avicen calleth it *Medeu*, by the name of a Town where it is most frequent. Albucasis calleth it *Vena civilis*. Haly Abbas *Vena famosa*. There is great difference touching the Cause and Cure of it. It chaunceth most commonly in the high parts of India and Ægypt, and is not often seen among us; yet somwhat I will say of it for the better instruction of the young Chyrurgion. Paulus and Avicen are of opinion, that in the place affected, the humor is like unto little worms: sometimes great, otherwhiles small, chiefly in the parts musculous, as in the thighs, and legge, sometimes in childrens sides under the skinn, with manifest motion. The Cause is a sharp mordicant humor, betwéen the flesh and the skinn, which in time wareth hard like a nerve or tendon, and not a vegetable thing as some doe imagine: these kindes of tumors are thought to have some venenositie with them, and is ingendered of an hot melancholy blood, and burnt phlegm, sent through the vains to the exterior parts by the vertue expultrix. The Signes, Are vehement dolour, punction, tention, varicous, anfractuosities, fever, hardnesse, round like nerves, and séeming to move in touching as if it had life. The tumor is long, and stretched from one joint to another, as from the knée to the foot, from the shoulder to the elbow, from that, to the part of the hand called the carp, with such intollerable pain that hardly can be suffered. The Cure, Whether it be humor or animall vegetable, is to foment the place with milk wherein Cammomill hath béen sodden, or a little Alloes, dissolved, with some medicaments to appease the dolour, then to give ayre either

Definition. *Pau. li 4 ca 83. Avi. li 4 ca. 21*

Judgements. *Pa cap citato. Adamus Loni. Soranus. Alb li 2 ca 92.*

Cause. *Faven. de puer. morbis cap. 12. Monard. li 7.*

Signes.

Cure. *Rasis tract 7. cap. 24.*

either by cauter or by visiccator: If it be not dolorous, and tend to suppuration, cure it as you have heard in *Erisipilas* and *Phlegmon*, changing your remedies according to the times of the tumor and humor predominant, as you have heard in their proper Chapters.

CHAPTER LXXI.

¶ Of the tumor in the Legs or Arms, called by the Greeks, *Elephantiasis particularis*.

Definition. *Gordon part 1. Ar. li 2. brevi. cap. 46.*

THis disease which is called *Elephantiasis*, if it be universaly through all the body, it is called Leprosie, and by the Arabians *Malum sanctæ manus*: but if it be particular, it occupieth only one member, which spoyleth the form, figure and disposition thereof, and maketh it rough, scurfie, red and unequall, like the skinne of the Elephant, for the which it is called *Elephantiasis*: if it possesse the skinne and not the flesh, it is called *Morphæa*. The Cause, commeth either from the Mothers womb, and is called Maladie hereditary, or after we are born. If in the Mothers wombe, the child hath bœn conceived in the time of monethly purgations, or else the Mother or Father hath bœn elephantick. It happeneth also after we are born, and cometh either of the corruption of the aire, by dwelling in places nœr unto the Sea, which makes the humors more grosse and thick: also by dwelling in hot Countries, as in Spain, Affrick, and in others, where many are infected; also in cold parts which thicken the humors. Likewise by great plenitude of the melancholique humor, or burnt choller, retention of the hemorrhoides or monethly courses, defection in the milt, usage of melancholique meats that are hard of digestion, such as Swine, Goates, Hares, and divers others: also by having companie with such as be Elephantick, drinking after them, receiving their breath or sweat, the continuall usage of milk, strong wines, drunkennesse, gluttony,

Cause. *Palmarius. Constanti. Affric de Elaphã*

Pa. li. 4 ca. 1.

gluttony, sadnesse, feare, melancholy, with all such things that thicken, heateth, or burneth the blood, or participates with a maligne quality. The Signes, is great tumor possessing the whole member or some part thereof, and doth augment by little, and little unsensible, not dolorous, sometime inflamed, the eyes troubled, the breath evill savoured, the skinne rough, knotty and unequall, hard and scurffy; at last the body becommeth atrofied and leane, the bones tumified, the hands and fingers become swelled, and the feete deformed. The Indgements, either being universall or particular, it is incurable, yet some remedies palliatives may be used to let and stay the malladie for a time, chiefly by purging of the melancholique humor, bleeding, bathing, ventosing, provoking of the hemorrhoides and the monthes, using good regiment in things that ingender good blood, abstaining from things of contrary qualitie, the which must be done by the advise of the learned Physition, or by such as have written of that subject, like as Palmarius, Paulus, Fernelius in his Counsels cap. 68. & 69. Chelmercus, Celsus, Pareus, Constantinus, Africanus with divers others. If there be inflamation or heat, use such remedies as are set down in the Chapter of Phlegmon. I have knowne some infected with this maladie, who did live more than twentie yeares by using good regiment.

Signes.

Pa. loco. citato.

Indgements.

Cure.

Cels li 3. ca 25.

Fer consil cap. 68. & 69.

CHAPTER LXXII.

Of the tumor which commeth in the extremities of the fingers, called *Paneris*, or *Paranychia*.

Definition.

Gordo part. 1. cap. 28.

Theeaor. lib 3.

Al li. 3. ca. 81

This hote tumor or Apostume which doth possesse the extremities of the fingers, and roots of the naylos of the toes, is called by the Greekes *Paranychia*, and by the Latines *Reduvia*. The Cause, is melancholique humors, malignant, venomous, of a most hote nature which proceedeth from the bones, nerves, tendons, and membraines that

Cause.

Albi 2 ca 89.

Vigo lib. 2.

that cover them. The Signes are vehement dolour, the which maketh the sick almost byside himself, accompanyed with fever, inflamation, and dolour, and other evill simptomes, as in Carbuncle. Guydo and Vigo doe call it a cruell, abhominable, and mortall disease, they report to have seen some grievously tormented, and dye thereof The Judgements, it is sometimes ulcered, avoyding a virulent matter, and is very dangerous, and divers times before there be any outward appearance on the flesh, it rotteth both the bones, ligaments and membraines, so that there is no remedy but amputation, in case it infect the rest. The Cure, first, the sick shall be purged, and bleed in the arme opposite, in the meane time using good regiment, abstaining from strong drinke, as in Phlegmon. The topicall remedies are diversly set down by the old writers: some counsaile repercussives, anodines, and suppuratives: others, for the greatnesse of the disease, counsaileth not to abide the maturation, but presently to make incision on the side of the joynt affected: the length of the said joynt penetrating to the bone, to give issue to that venome which is commonly betweene the periost and the bone, let it bleed til it stanch of it self. *Vigo* counsaileth, to apply the actuall cauter, for it hath a mighty virtue in correcting of the malignity and venenositie which offend the nerve and bone, also doth pacifie the vehement pain, which being done, the ulcer must be clensed with Egyptiacke and *Aqua vitæ* mixed together, or a little *Apostulorum*: In this case I never open it before it come to maturity, let it bleed, then wash it with *Aqua vitæ*, well rectified, and mixed with a little Theriacke and Mithridacke, thereafter I apply about the part a cataplasme of the leaves of Henbane, and *Mandragora* rosted under the ashes, & mixed with a little butter or Hogs grease, or in place of it Populion, *Rosat Mesues*, oyle of Roses to appease the dolour, with such other remedies as are set down in the Chapter of Carbuncle: Thereafter procure matter, mundifie the ulcer, and siccatrize it as you have heard in others.

Signes. *Cels. li 6 ca 18.*

Guydo
John de Vigo

Cure. *Vigo lib. 2. Guilelmus Placentinus. Chelm. enchir. li. 1. cap. 39. Vigo li. 2. cap. Petrus Bairus in sua practica.*

Petrigmin

Prerigmin is an excrescence of fibres under the nayles of the fingers or toes, chiefly in the thumbe or great toe, it looseth the joynt of the nayle, and maketh it to fall, sometime corrupteth and rotteth the bone; for the Cure you must use such remedies, as in ulcers, with corruption of the bone, yée have heard.

CHAPTER LXXIII.

¶ Of the little excrescence which cometh commonly in the hands or other parts, called by the Latines *Verrucæ*, and by the Arabians *Boteralæ*, in vulgar *Warts*.

There happeneth oftentimes in the hands little excrescence or Warts of divers formes, and are for the most part incommodious, painfull, unséemly, impeding somewhat the action. They are of divers kinds, which all or either of them doe infect the part where they are they are ingendered of a melancholique pituitous blood. The Cure is divers, according to the nature of the excrescence, some of them be knit, others be cut, some consumed with corrosives; such as be small at the roote, may be knit with Horse-haire, thread, or silke well waxed, and wet in strong water, or oyle of Sulphure, tyed every day faster then other: the hard tying letteth the nourishment, and causeth it to fall more easily: Such as be large at the roote may be cut with a Razor or sharpe sheares, letting them bléed well, then apply a little pouder of Bolarmenie, or *Terra sigillata*, with a little Allom water: Such as be very hard without great féeling, may be consumed with oyle of Vitreoll, strong water, or powder of Arsenicke, then apply defensitives of Boll, with Rose and Plantine water, or Oxycrate: Others which be more tender and not dolorous, may be consumed with the powder of Savine and Ocre, well dryed and subtilly pulverished, or with a little black Sope and Salt mixed together, others doe

Definition.

Cels li 5. ca. 28.

Cause.

Pa. li 4 ca. 15.

Cure.

Arnald. lib. 2. brevi cap. 45.

Bru. li 2 ca 14.

Gord. part. cap. 20.

Rol li. 3 ca 33. Baptista porta Rossellus.

consume them with powder of *Asphodelorum* and *Hermodads*. Baptista Porta doth much approve the head of an Eele, cut and rubbed with the blood thereof. Rossellus commendeth the red Onyon wel bruised with Salt, and rub the Warts therewith; also the powder made of hony, set down in the Chapter of the Caruncle of the Wand, otherwise you may take Agrimony, a little Salt, Vinegar, and bruise al together and annoynt the Warts; the dregs or lees of Wine burnt, or the rootes of Oysters doe the like.

CHAPTER LXXIIII.

¶ Of the Tumor or Ulcer in the Heels called *Mula*, *Kybs*, or *Chilblanes*.

Pau li 3 ca 79 Cels li 5 ca 28

Cause.

Cure.

Avicen. Cels. loco citat.

THis tumor, little ulcer or excresence, which oftentimes happeneth in the hands and feete, chiefly in the heels of young Children in the Winter season, are called by the Greeks *Chimethla*, and by the Lattines *Perniones*, are very noysome, and doe commonly proceed of cold, using of strait shoes, and filth on the feet and heels. For the Cure whereof Avicen counselleth to make embrocation with hote water, or *Aqua marina*, which is water and Salt mixed together, also a laviment made of powder of Dragagant, with oyle of Mastick, or you may make a liniment of Goats grease, with a little powder of Nutgaules: otherwise, take two ounces of the marrow of Neats feet, with halfe an ounce of *Galbanum* mixed, and apply to the sore: in like manner you may foment the sore with the decoction of the roote of *Ciclamen*, or *Navets*; as also *Ciclamen*, or *Raphards*, rosted under the ashes, and mixed with a little waxe, and apply it in forme of a plaister or cataplasme: if the ulcer be large, apply some gentle mundificative or *Apostolorum*, thereafter *Vnguentum album*, powder of Mastikk, Incense, & Myrthe, with a double cloth wet in warme Claret wine, so hold it warme.

CHAP-

CHAPTER LXXV.

¶ Of the little hard Tumor in the Feet, commonly called *Cornes*.

THose hard callous tumors which commonly possesse the toes and soales of the feet, but chiefly the joynts and under the nayles, are called Cornes, and in Latine *Clavus*, of the which there are three kindes, to wit, *Corpus*, *Callus*, and *Clavus*. The Cause, Is chiefly in wearing of strait Shoes, superfluous excrements which cannot avoid, so remaineth in the nervous part, and requireth a certain hardnesse, according to the nature of the part where they are. The Signes are evident to the sight. The Judgements, Is great dolour, with impassing to walk or travell, they happen sometime after contusion. The Cure is, That those that are little and not deep, may with a sharp Bystorie, be cut at the root; but before they be cut, I use to apply to the Corn a little peece of fresh Veal of the bignesse of six-pence and tye it to the Corn a whol night, it doth mollifie it, and maketh it more easie to be cut, which being done, I fill up the hole with a little of that sand, which ordinarily doth rest in the bottome of the Chamber-pot, it letteth the growing of it again, being finely taken out at the root. Lebot commendeth much the applying of a Cowes gaul, which maketh it to fall out at the root: some after the Corn be softned, either by fomentation or peece of Veal, doe apply powders made of the root of *Arista bovis*, otherwise little roots roasted under the ashes, and beaten with *Axunge*, and apply it to the Corne, which maketh it to fall in three or foure dayes, then fill up the hole with a little Ware or greene Copprys, or a little of that sand which remaneth in the ground of the urine. In cutting if it, goe not too deep amongst the ligaments and tendons, for the great accidents that sometime doe follow, as inflamations,

Definition. *Celf li 5 ca. 28.*
Difference. *Pa li. 3 ca. 80.*
Cause.
Signes.
Judgements.
Cure. *Theodor. lib 3. cap. 39.*
Lebot li. 3. of Ornament.
Pau li 6 ca 87.

Petrus Bairus.

mations, convulsions, and gangrene, by the which some have loſed their toes and feet, by cutting a part of it, the root groweth more large; ſo it is beſt to foment the part with water of Mallowes, and Althea, or water wherein Trypes have been ſodden: thereafter uſe Gummi Ammoniack, diſſolved in *Aqua vitæ*, and lay on it: or this which I doe uſe made of like quantitie, of Turpentine, Ware, and Verdigreaſe, called *Ærugo æris*, and apply on the part: alſo red War, *ſemper vivum* and a little *Ærugo æris*, mingled together, and apply: and ſo we end this Book, and ſhall follow out to entreat of Wounds.

(***)

THE

The ſixt Booke:

Of VVounds.

Which containeth XIII. Chapters whoſe contents be theſe; by PETER LOVVE. *Scottiſh-man.*

Chap. 1. Of Wounds in generall.
2. Of the ſimple Wound in the fleſh.
3. Of the compoſed Wound, with loſs of ſubſtance.
4. Of the contuſed Wound.
5. Of Wounds done with Gun-ſhot.
6. Of burning with Gun-powder.
7. Of Wounds in the vaines and arteries.
8. Of Wounds in the nerves.
9. Of wounds by byting of venemous beaſts.
10. Of Wounds in the bones.
11. Of Wounds in the head.
12. Of Wounds in the Thorax.
13. Of Wounds in the Belly.

CHAPTER I.

¶ Of the Cauſes, Signes prognoſtick, and Cure of Wounds in Generall.

Interloquutors. Peter, *and* John.

Pet. LIke as we have proceeded in the former Book of Tumors, we ſhall follow out the ſame method in Wounds, firſt demanding of you what is a Wound?

Joh. It is a ſolution of continuitie, recent, Definition.

Gal. meth. 3 cap. 10. Celf. li. 5. ca 26. Gal lib. 2. de fracturis.

recent, bloody, without putrefaction, either in the soft, hard, or organicke parts.

Pet. What is the cause of wounds?

Cause. Celsus ibidem.

Joh. The Causes are divers, and doe happen divers wayes, by the which the wound taketh divers denominations, as if a wound be made by a thing sharpe pointed, as a Rapier, Launce, or Dart, it is called thrust or stobb: if by a sword or any such thing that do cut, it is called incision or cut: if of a heavie and blunt, as a Stone, Bat Clubbe, and such like, which are done by force and violence, breaking and contunding the flesh, it is called contusion.

Pet. Which are the Signes of wounds?

Signes. Gal. de caussis morb. ca. ult. Celsus ibidem.

Joh. They be manifest, according to the judgements and accidents that follow.

Pet. Which are the difference?

Difference.

Joh. Some are simple, others composed.

Pet. What is a simple wound?

Hippo sect. 6. apho 18.

Joh. It is that wherein is no lacke of substance, and healeth by one way onely, as sayth Hippocrates.

Pet. What is a composed wound?

Jo. It is that in the which there is losse of substance, and hath divers intentions for the cure thereof.

Pet. Differ they no other wayes?

Joh. They differ also in this, that some doe heale easily, others are difficile, some be mortall, some without intempery, some be little, others great, superficiall, profound in ꝑ simple or similar parts; others in the instrumentall or organicke parts, some doe happen in soft, others in hard parts.

Pet. What are those that heale easily?

Hip 2 praedict.

Joh. Those which are in the flesh, without incision of vaines, arteries, nerves, and in bodies well disposed.

Pet. Which are dangerous?

Celf li. 6. ca 24 Hip 6 sec. aph Paracel Chir magna.

Joh. All those which are interne in the membraines of the braines, in the loynes, in the bordes of the Diaphragma, great intestines, and those that are in the joynts; also wounds in the nerves which cause convulsion, by reason of their

their communication of the braines; those in the *Oesophage*, vaine Jugulares, flancke, thighes, betwirt the fingers, and such as are without tumor, all wounds in the head both great and small, with such wounds as are deepe made overthwart the muscles.

Hip li. de vulnerib capitis.

Hippo. lib 5. apho. 66.

Pet. Which are mortall?

Joh. All those in the substance of the braines, heart, lyver, middest of the lights, chest of the gall, middest of the Diaphragma, stomake, melt, kidneyes, small intestiues, bladder, matrix, trahearterie, and spinal medul; those which are in the rootes of the muncrories of the noble parts, also in the vaine descending or ascending, vaine port, great arterie, or in the backe.

Hip. aph. sect. 5. Gal. lib 4. ca 6. Cels li. 5 ca. 26 Bru. li. Chr. cap 6

Pet. Which are the peculiar signes, whereby you know those parts to be mortall?

Fallop. exposit. in lib. Hip. de vulnerib. capi. cap. 95. & 98.

Joh. Every one have their owne particular signe, as if the braines or membraines thereof be hurt, the blood commeth forth by the nose and eares, with vomiting of choller, avoyding of the excrements unawares, the face groweth ugly to the sight: the feeling and understanding dull, with convulsion and raving within three or foure dayes. I know the heart to be hurt, when there commeth forth quantitie of blood, thick and blacke, chiefly the right side being hurt; if the left, the blood is more red and subtil, the pulse becommeth weake and variable, pale colour, with universall trembling, avoyding a cold evill savoured sweat: the extremities war cold, often sounding, and briefly death. I know the Loynes to be hurt, when the sick doth breathe with difficulty, voyding a spumous blood at the mouth and wound, also when the sick lyeth on the wound, speaketh more freely than on the other side, with raving, red colour, and hote in the visage, sometimes avoyding quantitie of matter by the wound. The membrainous part of the *Diaphragma* being hurt, the flanck doth retyre with great weight on the part, dolour in the ridgeback, difficultie to breath; coughing with issue of a spumous blood at ꝑ wound.

Celsus lib. 5. cap. 26. If the Liver be hurt, there commeth out abundance of blood at the wound, the flanckes retyre towards the backe, the colour like death, the eyes sink in the head, want of rest, the urine is bloody, the excrements purulent, the sick commeth to lye on the belly, the dolour is pricking, extending to the breast-bone and ribbes, in respyring he draweth in his shoulders, and vomiteth choller. *Paulus Ægineta* reporteth, that one lobe of the liver may be hurt, and yet death not follow of necessity. If the milt be hurt, the blood commeh forth black and thick at the wound or left flanck, which with the stomack waxeth hard, there is great drought, dolour in the left side, also in ẏ region of the liver: if the kidneys be hurt, the dolor descendeth to the roote of the thigh & testicles, with difficultie of urine, pissing of blood, sometime the blood stayeth within, & the sick becommeth all swollen, and so dieth. If the oriface of the stomack be hurt, there ensueth vomiting of choller, also of the meat and the drink, the pulse groweth weake, extremities cold, often sweating. The intestine *Jejunum* and stomack being hurt, have the same signes, with the meat and drink comming forth at the wound, the flanck dolorous and hard, voyding choller at the mouth, the spittle blew, and extremities waxe cold. The Spinall medull being hurt, there happeneth convulsion and Paralisme, the feeling groweth remisse, the inferiour conduits are relaxed, so that the urine and excrements voydeth away unawares. The Bladder being hurt, there is great dolour on the sheere-bone and Ilia, pissing of blood, voyding of the urine at the wound, vomiting of choller, coldnesse of extremities. If the Matrix be hurt, the dolour doth communicate to the liskes, haunches, and thighs, the blood commeth forth partly by the wound, and partly by nature: some lose sence, reason, and speech, and have the same accident as those who are hurt in the heart. The Intestines being hurt there is great dolour, with continuall voyding of the excrements at the wounds.

Pa li 6 ca 88

Pau. li. 6 ca 48

Cels li 5 ca 26

Hippo sect 6 apho. 28

Cels li 7 ca 6.

Pet. What is to be considered in the judgements of wounds?

Joh. First,

Joh. First, To know what part is hurt and the nature thereof, whether there be any hope of health, knowing the parts that are easie to heal, difficile, and mortall; also the usage, action, substance, situation, the figure of the wound, actions that happen. The temperature, age, sex, region, season, and constitution of the time, wounds in the nerves, tendons, joynts, and bones, without appearance of tumor or evill signes, and sheweth the humor to have taken the course to the noble parts. Hippocrate saith, if in the wound of the articles, flux of the belly doth happen, it is evill, and for the most part mortall. Wounds with fracture behinde, are in danger of spasm, and such as are before are in danger of raving and frenzie. If convulsion happen in a wound, chiefly after great inflamation, it is for the most part mortall, and sheweth that the parts nervous are hurt. Wounds in the head, if after ten daies symptomes doe happen, it signifieth abcesse in the liver, and great drought signifieth the same. Wounds with great losse of blood, if convulsion ensue, are dangerous; as also all thrusts in the nerves and tendons, and in voluntary vometing of choller, or if the inflamation lasteth long, are all evill signes.

Judgements of Wounds.

Lib de articulis.

Hippo. sect. 5. apho. 65.

Celsus ibidem.

Pet. Untill what time should we stay our judgement of wounds in the head?

Joh. To fortie daies, some late Writers till fifteen or twenty daies, after which time, often fevers and other evill accidents, which chanceth often in time of full Moon, in which time I did see sundry dye.

Hip li. de vulnerib. capitis.

Pet. What time of the yeer is most expedient for the curation of wounds?

Cure.

Joh. The Spring time, the weather being neither hot nor cold: the Autume is worse, for the moistnesse of the aire; also the Winter is enemie to all ulcers and wounds, in the membrains and bones.

Hip li. de ulcerib & apho. 5 sect 5

Pet. How many points are there to be observed in the curation of wounds?

Fallop. exposit. in lib. Hip. de vulnerib capi. cap. 25.

Joh. Five, in ordering of universall remedies, with good regiment,

regiment of life, and good aire, which must be hot and temperate: the sick must be nourished with little meat and of light digestion, somewhat refrigerative. If there be fear of fever and inflamation, which is most to be feared before the seventh day, for the which abstain from wine and all strong drink, except through losse of much blood the heart be faint, sup lightly, and abstain from women, and all violent passions of the minde. If great dolour, inflamation, or convulsion happen, as in parts nervous and bare of flesh, let blood, and use light purgations, if the body be Cacochymick. In great wounds of the head, and such other times as is not meet to give potions at the mouth, as you shall perceive by the estate of the diseased, use Glisters. The Second point, in taking away that which is noysome, as Iron, Balls, any Stones, Wood, and such like, Cloth, peeces of bones, or congealed blood.

Celf. li 5 cap. 26 & 27.

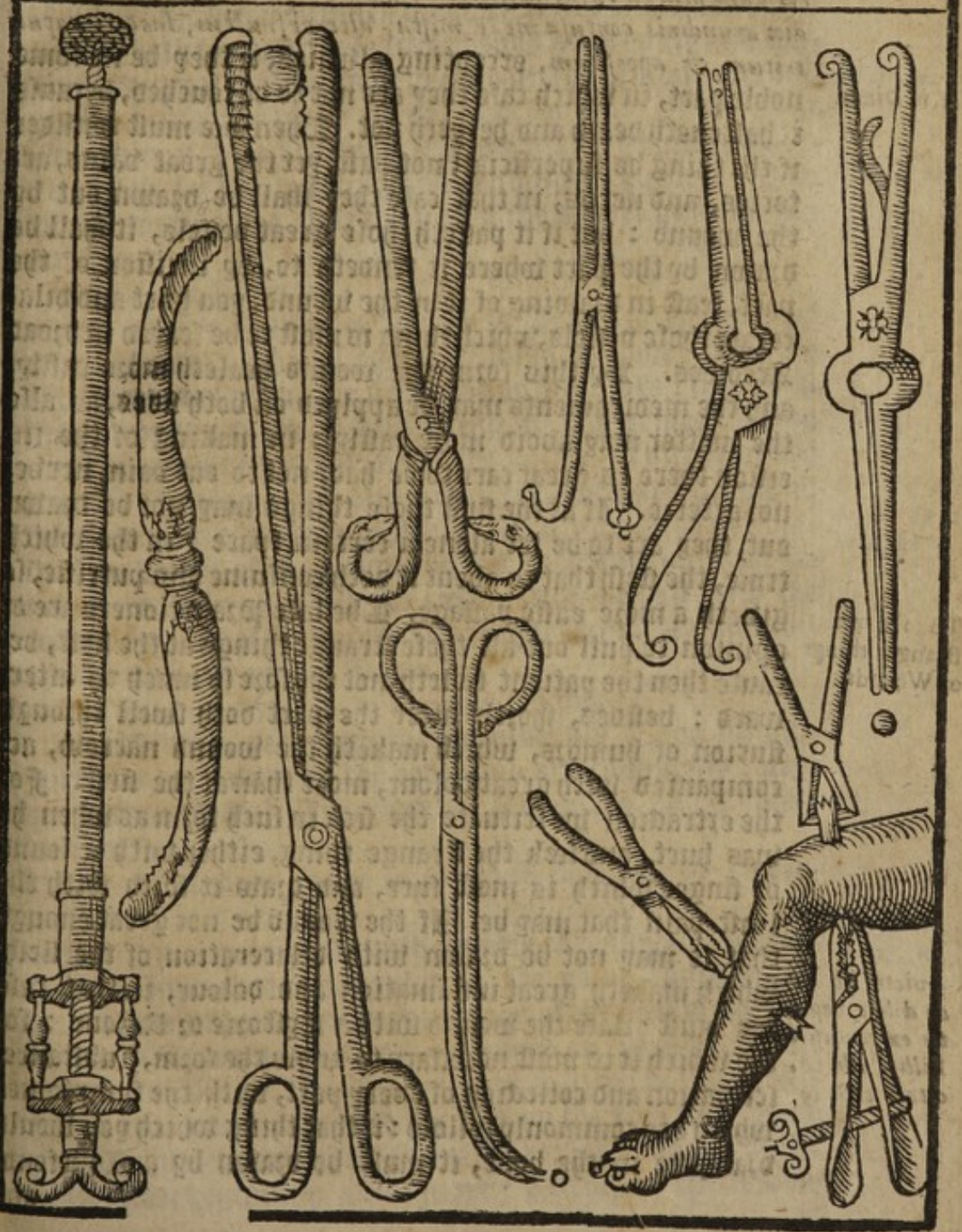
Savona. cap. 4. li 1. de balneo Gal. li. 4 meth cap 6. Fillip. li curat. cap. 26 & 27. John de Vigo & Guydo. Rol li 1 ca. 22. Pa li 6. ca. 88. Oribasis. lib. 7. cap. 17. Celf li 7 ca. 5

Pet. By what means take you such things away?

Joh. They shall be taken away either by the part where they enter, or parts whether they tend, which is done by divers sorts of Instruments fit for that purpose.

Instruments

Instruments to drawe bullets, arrowes, and other strange things, from woundes.



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also by the help of those medicaments, *Radix pectinis veneris cum malva tusa, aristolocia, ammoniacum cum melle, radix arundinis contusa melle mista, altercifructus, lacerti caput tritum & appositum*, excepting alwaies, if they be in some noble part, in which case they are not to be touched, because it hasteneth death and helpeth not. Then wée must consider if the thing be superficiall not past, yet the great vains, arteries, and nervs, in that case they shall be drawn out by the wound: but if it passeth those great vessels, it shall be drawn by the part where it tendeth to, by incision of the part, least in drawing of it by the wound, you hurt and dilacerate those vessels, which thing is most to be feared in broad Arrowes. By this form the wound healeth more easily, and the medicaments may be applyed on both sides, as also the matter may avoid more easily: in making of the incision there is great care to be had, not to cut vain, nerve, nor arterie. If at the first those things may not be drawn out, they are to be let alone a certain space: in the which time, the flesh that is about it doth consume and putrifie, so giveth a more easie passage. The late Practicioners are of opinion to pull out all those strange things at the first, because then the patient feeleth not the sore so much as afterward: besides, shortly after the part doth swell through fluxion of humors, which maketh the wound narrow, accompanied with great dolour, more than at the first. For the extraction we situate the sick in such form as when he was hurt, and seek the strange thing, either with a sound or finger which is most sure, and draw it forth with the least pain that may be. If the wound be not great enough that it may not be drawn with dilaceration of the flesh, which maketh great inflamation and dolour, in that case we must dilate the wound with a Bystorie or Razour: for the which it is most necessary to know the form, substance, situation and collection of every part, with the symptomes which doe commonly follow: if that thing which you would draw, be in the bone, it must be drawn by a Tyrefond, and

Pli. li. 24. ca. 19

Jacob. Dinus.

To take out strange things of Wounds.

Avicen lib 3. de dolore capitis ex contusi.

Fillip. lib. 1. citato cap. 19.

and shaken a certain time afore, as counselleth *Rollandus lib. 1.* If the bone be much broken, we use dilatation of the wound, both to draw those little bones more easily and consume the great: if without great pain the Bullet, Arrow, or other thing cannot be found, and the sick feel no great harm thereof, it is best to let it alone till such time it sheweth it self by the working and moving of nature. The third intention, we close the lips of the wound by bandages and sutures.

Al li 2. cap 59.

Pa li 6 ca 88.

Pet. What is Suture?

Joh. It is a joining of the parts separated against the course of nature, which in great wounds is done by needle and thread, to the end the siccatrize be more sure: like as in great wounds of the thighes, legges, and armes, where there is great distance betwixt the bordes or brims of the wound. If the part be altogether cut, and have almost no hold whereby to receive health, the suture availeth not: also if the bordes of the wound be inflamed and tumified, no suture must be used till the inflamation be past, and the wound somewhat suppured: in doing whereof, it must neither be too slack nor too straite.

Gal li. 3 meth. ca ult. & com. in Apho. 9.

Pet. How many sorts of Sutures are there?

Joh. Divers, according to the diversity of the wound, hurt part, or nature of the body, and are commonly referred to three, to wit, Incarnative, Retentive, and Conservative.

Pet. After how many waies doest thou use the Incarnative?

Hippo lib. 6. apho. 18.

Joh. Five waies, first with a needle of reasonable length, sometimes curbed, triangular at the point, with a soft strong round thread, to the proportion of the wound and needle: also the needle case must be holden on the other side of the wound to hold it steady, that the first stitch be in the outside of the wound, and hold the case on the hurt side, make your next stitch on the hurt side of the border, & the case on the whole side, beginning alwaies your stitches in the middle

of.

Gal li. 3 meth. cap. 4. Celsus lib 5. cap. 26. 27.

of the wound, taking reasonable great stitches in deep wounds, and superficiall in small wounds, joining the lips of the wound evenly and closely together, so knit the thread and cut near the knot then if need be, put another stitch interspace betwixt, observing alwaies that the stitches be no nearer than an inch one to another.

Pet. How the second done?

Celf. 7. cap. 16. & li 5 cap 26

Joh. Either with a needle or divers together, as if the wound be great and deep, and the thread not sufficient, we passe an other needle in the wound, as the president, yet not drawing it through, as doe women, when they stick a needle in their sleeves, and turn the thread about it; and after this order, use so many as shall be needfull, according to the greatnesse of the wound: and this kind of Suture we use in cloven lipps, which shall bee done in this manner. If it be not great, and much dilated, and the person neither too yong, nor too old, nor of evill habitude, we take the lipp and cut all the skin of the inner side of the cleft with an instrument, then we passe one needle as abovesaid, or two if need be, with an emplaister of Betonica, or such like, which doth conglutinate the lipp commonly in ten daies, after which time cut the thread, and take out the needle, and induce the cicatrize, as in others: Doe the like in the eares, or nose, being so cloven.

Pet. How dooll thou the third Suture Incarnative?

Joh. With long needles and strong thread, double, with an hard knot on the end, which wee passe in divers parts of the wound, leaving alwaies an inch betwixt, then passe a little round peece of wood the greatnes of a small Goos-quill, in each side of the wound under the thread, and presse the lipps of it gently together, and knit the thread with double knots one after another, untill all be knit, which is used in great deep wounds, that the stitches doe not break or slipp.

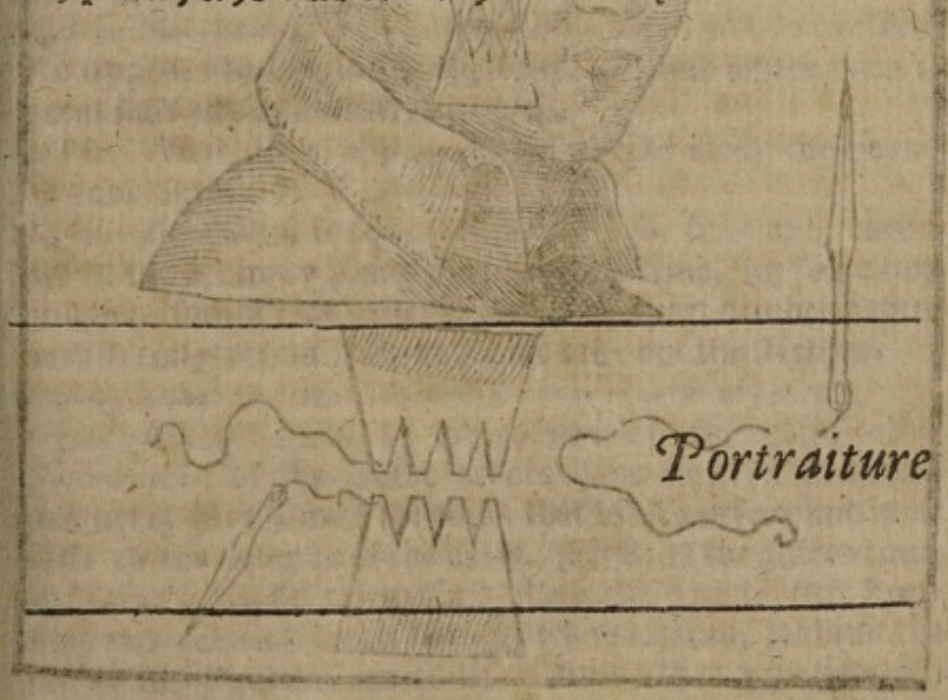
Gal 3 meth. cap. ult.

Pet. How is the fourth Suture Incarnative done?

Joh. By little peeces of Cloth, as the breadth of the wound

wound and place requireth, that is strong, with the selvage cut in points like Arrow heads, the rest shall be covered with some astringent and conglutinative emplaster, as this, Take powder of Sangue Dragen, Truboll, Incence, Mastick, Sarcocolla, fine flower, incorporate all with whites of eggs, and lay on both sides of the wound with the aforesaid cloth, and the cloth be further back than the lippes of the wound, so the points shall be near to the said lipps or borders, which being fast, wee put a thread through these points till such time as wee see the lipps of the wound to close, and knit the thread with a double knot, this is called the dry Suture, and is commonly done in the face, and such places, where we desire the Ciccatrize not to be seen.

Avicen tract.1 cap. 8.



Portraiture

Pet. How doest thou the fift Suture Incarnative?

Joh. With claspes of Iron sharpe poynted, and long, which take lippes of the wound being put together, and hold them so: this was used by some old practicioners, but at this present it is not in use, as be dolorous, and exciteth inflamation and fluxion.

Pet. How

Pet. How is the second kinde of Suture generall done?

Joh. It is done after the manner that the Glovers sowe their gloves, but is neither sure nor profitable, for one point slipping, the rest slippe also. In like manner, ye blood, which is retained, swelleth the part, and falleth amongst the muscles, which often doth rotte, and gangren the part: so it is better to knit the vaines and arteries, or cauterize them, which I have done with good successe, and was used by our Ancients where there was great effusion of blood in the vaines and arteries, and now commonly used in the intestines, stomacke, and bladder, and such other membrainous parts.

2 Suture generall called restreinitive.

Pet. How is the third Suture generall done?

Joh. As the rest, but not so hard; and is used to conserve the lippes of the wound being separated, and where there is great losse and dilaceration of flesh.

3 Suture generall called conservative.

Pet What time appoynt you to take away the poynts of your Sutures?

Joh According to the opinion of Vigo, in 6. or 8. dayes, yet in our ordinary practise we limit no time, for some conglutinate sooner than others, so when the part divided beginneth to conglutinate, assuredly we take out the stitches.

Vigo lib 3.

Pet. Is there no other sort of Sutures commonly used?

Joh. There is a kinde which we use in the belly, called *Gastroraphie*, of the which divers have written in divers manners, here I will set down that which is sure and most easie in the wounds of the belly. First, if the guttes come forth, they must be put in their place, also ye caule, first knitting and cutting away that which is altered, leaving the end of the ligatour out at the wound, that which falleth may be drawn out, then thou shalt cause one to take both sides of the wound in his hand, then he shall discover a little of the wound, so make the first stitch of the needle at the extremitie of one side of the wound, pearcing the skinne and muscles, not touching the periton, thereafter put the needle in the other side through the periton, muscles, and skinne,

Gal 6. meth. cap. 4. Albucr. lib. 2. cap 85. Cels. lib. 5.

then make another stitch like to the first, not touching the periton, then make the fourth point like the second, pearsing periton, muscles and skin, so continue it till it be all sewed, taking the periton on the one side, and leaving it alwaies on the other. If the Epiplon be altered, cut it away, tye the rest in feare of flux of blood, hold forth the one end of the thred till it fall off it selfe.

Pet. What is bandage or ligatour?

Ligator which is the second help in conjoining of wounds.

Joh. It is a peece of cloth made long two or three ells, and in breadth three or four inches, according to the member and hurt, the cloth must be soft, clean without hem or seame, and more slack in wounds than in fractures, and of it there are divers sorts, for some are to containe, as in simple wounds, some are to expell matter, as we see in cave wounds, some are defensives to stay fluxion, some to retaine the medicaments on the part, as in the throat and belly, some are mortificative which we use in legs or armes gangrened, to cut them off. The way how these bandages should be used, are after divers manners, according as you shall heare in their proper places hereafter.

Cels. li 5 ca 26.

Orib. li. de fasc.

Four points in correcting accidents of wounds.

Pet. Which is the fourth point observed in curing of Wounds?

Joh. To give order to the accidents, which are double, to wit, proper and accidentall.

Pet. Which are proper?

Joh. Apostume, Hemeragie, and Putrefaction.

Apostume.

Pet. What is Apostume?

Joh. I have set down the definition, signes, difference and cure thereof in the generall Chapter of Apostumes.

Hemeragie.

Pet. What is Hemeragie?

Joh. It is an issuing of the blood in great abundance, the vaine or artire being cut, riven or corroded: there is another flux of blood, which sometime commeth at the nose, and chanceth often in dayes criticke, which should not be stayed, unlesse it be excessive.

Ga 3 de crisib

Pet. How should the excessive flux be stayed?

Joh. By

Joh. By things about and on the place, which cole, agglitate, and drie, by ligatours, cauters actuall, and such like, as I shall set down in the Chapter of Wounds. with flux of blood.

Pet. What is Putrefaction? Putrefaction.

Joh. It is that which corrupteth and letteth the spirit and naturall heat in the member, where through it becommeth rotten and putrified.

Pet. What is the cause of this putrefaction?

Joh. Either corruption of the spirit vitall, or else viscous and cold humors, which stop the passage of the vitall spirit, some are causes primitives, as strokes, contusion, straight binding, and such like.

Pet. What are the accidentall causes? Symptomes accidentall.

Joh. Evill complexion, fever, dolour, spasme, paralisye, syncope, and alienation.

Pet. What is evill complexion? Evill complexion.

Joh. It is an evill comixion of the foure humors, when one raigneth more than another, as was said in the first Booke.

Pet. What is fever? Fever.

Joh. It is an extraordinary heat, beginning in the heart, sent through all the body with the spirit and blood, by the vaines and arteries,

Pet. By what means is it cured? Cure.

Joh. It is distinguished according to the time, cause, and nature, which points belong to the Physition.

Pet. What is Dolour? Dolour.

Joh. It is a feeling of a thing, which hath a contrary qualitie in our bodies.

Pet. What is the cause of Dolour?

Joh. Solution of continuitie, or some sodain alteration; the accidents which come of it, as also the cure, is set down in the generall Chapter of Tumors, yet wee will say somewhat of it at this present. All dolour maketh alteration of humors and blood, which maketh inflamation, for the *Pa li 2 ca 39.*

which foment the place with oile of Roses, with the white of an egg, if the dolour be great, stupifie the part with oile of Poppie and Opium, with Mandragor, also the root of Solanum brayed and put with the same, is good to mitigate the dolour, as saith Galen: if it be not appeased by these remedies, it is signe that the nerves are hurt, for the which have recourse to the wounds in the nerves.

Lib 5. meth & lib. 3. cap. 4.

Spasm.

Pet. What is Spasm?

Arnald lib 1. breve cap. 25

Joh. It is a malady in the nerves, making involuntary moving, drawing the muscles and tendons towards their beginning, uneasie to relaxe.

Pet. What is the cause of Spasm?

Hip. aph. lib. 5 & 6 apho 39. & Gal. lib. de symp. causi.

Joh. Repletion, evacuation, and dolour.

Pet. Is it dangerous?

Joh. Avicen saith, That all spasm confirmed in wounds is mortall, others are curable: that which chanceth through thrusts in the nerves is evill. If it happen by great evacuation of blood, it is mortall, as saith Hippocrates, and better it is, that a fever come in a convulsion, than convulsion in fever: Spasm after fevers, is mortall, as saith Hippocrates.

Pet. Which are the signes of Spasm?

Joh. Difficile moving of the body, tention of the neck, contraction of the lippes, astriction of the jawes, pervertion of the eyes and face, which, if it take the course to the parts appointed for respiration, it is lamentable, and the sick shall soon die, that which is confirmed, is incurable.

Pet. What is the cure of it?

Joh. First in good diet, with dire aire, moderate sleep, open belly, eschewing the passions of the minde, using corroboratives, we foment the part with Hydrolion or Hydromell, sometime bathe with water wherein hath been sodden Mallowes, Althea, and Violets, extremities of Calves, Mutton, Goats, Lambs, and such like, with a certain quantitie of oile: being taken out of the bath, rub the part with oile of Violets, sweet Almonds, Hennes grease, or

Cure.

Mutton,

Mutton, also rubb the neck, back, and head being rased, with oile of Lillies, Mulpinum, Turpentine, *Phylosophorum*. For the same purpose, dry perfumes are good; it shall be good sometime to draw blood on the same side, if there be plenitude with inflamation; if there be cacochymie, purge the body of the humors which abound; if the cause come of dolour, or some bite of a venomous beast, the dolour must be appeased, and apply on the sore Treacle and ventostes, to draw out the venenositie.

Gal. 6. meth. cap. 3. Gal com. ap. 17. lib. 5.

Pet. What is Paralisie?

Joh. It is a mollification, relaxation, or resolution of the nerves, with privation of the moving, whereof there is two kindes, universall and particular.

Pet. What is the Universill?

Joh. It is that which occupieth all the body saving the head, and if it possesse the head also, it is called Apoplexie, which is another kinde.

Pet. What is the particular?

Joh. It is that which possesseth one member only, as the hands, feet, tongue, leggs, and such like.

Gal. 3. de locis affectis. cap. 10.

Pet. Which are Cautes?

Joh. Some are intern, and some extern. Intern, as grosse humor, which moisten the nerves in the brains and marrow, which let the vitall spirit to passe. Extern, are wounds, incision, falls, strokes, contusion, apostbume, cold bandage, all outward things that may let the animall spirit to passe.

Pet. Is it curable?

Joh. All Paralisies are difficile, by reason the nerves are destitute of their natural heat, which is the efficient cause of curation, yet some are curable; when the nerve hath lost the feeling and moving, it is called Apoplexie; when it cometh to one side, it is called Resolution of the part.

Arnald. brevi. lib. 1. cap. 24.

Cure.

Gal. 3. de locis affectis.

Pet. How is it cured?

Joh. By universall and particular remedies: universall, as purgations, Glisters, bleeding, good dyet, hot and dry;

particular, as emplaisters, liniements, ventosses, cataplasms, fomentations, also the balm of Guydo, who counselleth to apply ventosses in the beginning of the nerves. Togatius counselleth, a liquor set down *in additionibus Petri apponensis descriptionis mesue* also to rubb the neck, back, and parts most offended, with *unguentum marciatum* or *Agrippa*: Or this, which was shewed to me by my well experienced friend Master William Clowes, Chyrurgion Ordinary to Queen Elizabeth of worthy memory, and is thus. *Rec. Artemisiæ, Rosarum damasc. an. M. 4 florum lavendulæ, primulæ veris, basilicoris, manthæ, majoranæ, an. M. 2 foliorum lauri, abrotani, origani, cammomillæ, an. M. 1 absinthii, Rosmarini, pulegii, an. M. sem. bulleant simul omnia in suffi. quanti aquæ, deinde adde, aquæ compositæ vel malvosæ, lib. sem. fiat fotus*, after the part be well dryed, they shall use this liniement, *Rec. Olei primulæ veris, unc. 2 medullæ tibiarum equi in aqua vitæ cocti, unc. 3 olei castorii. unc. 1 olei hypericonis unc. 1 sem. musci in oleo cammomillæ dissoluti gra. 20. misceantur, & fiat liniementum.*

Syncope. Pa li. 1 ca 37. & 38. Gal. 12 meth. cap. 5.

Pet. What is Syncope?

Joh. It is a suddain fall and decay of all the whole forces of the body, and of all accidents it is the worst.

Pet. Which are the causes of it?

Joh. Great evacuation of blood, intemperature of the noble parts, vehement passion of the spirit, fear, lack of courage, rotten vapours, as happen in pestilent fevers, and all things that may intercept and destroy the vitall spirit.

Cure. Gal. 10. ingenii sanit ca. 5. Gal. 12 meth. cap. 4.

Pet. What is the Cure?

Joh. First, To encourage the sick, speak little, give him a little wine, cast water in his face, and hold vinegar at his nose: draw his extremities, and chiefly the finger, and rub the part affected with this, *Rec. Olei costini, terebinthinæ, an. unc. 2 misceantur & ungatur.* With this unguent, *Rec. unguenti martiati, unguenti Agrippæ, an. unc. 1 sem. olei costini, & nardini, & de piperibus, an. drag. 1 sagapeni, opopanacis dissolutorum in vino, an. drag. 2 ceræ parum, fiat unguentum,*

tum, quo ungatur nervorum origo?

Pet. What is Alination?

Joh. It is an inordinate perturbation of the minde, with diversitie of speech, whereof there are two kinds, proper, and accidentall: the proper, is that which we call madnesse: the accidentall, is that which we call raving, as chaunceth in hote fevers, and other malladies, wherein hote fewmes ascend to the head, or by hote and cold ayre, as saith Avicen, also by putrefaction and venositie of our meat and drink, and is cured by diverting the fumes with frictions and ligators of the extremities, using glisters, and rubbing the head and neck with Dryrodinum, and divers other things which may be prescribed by the learned Physition.

Gal. 9 meth. cap. 10.

Pet. What is the fitt thing to be observed in curing of Wounds?

Gal. 3. thera. Put.

Joh. To conserve the substance and the temparature of the hurt part, and consolide the wound, which is done with unguents, emplasters, tents, plumations, as yee shall heare in particular.

Things observed in curing wounds.

Pet. Tell me some thing of Plumation, Tents, and their use?

Joh. Plumations are made of little peeces of cloth, the threeds drawn out, or the peeces of cloth themselves, wooll, or towe, the pith of Elder tree, the haires of a hare, Gentian. Of these, Some are round, some are triangulars and quadrangulars, the Ancients give them divers denominators, either of the matter they were composed of, or of their forme: some are applyed dry, others wet in divers liquors, as whites of Eggs, wine, vinegar, or oyle, according to the disposition of the part we apply them unto. Sometime we apply many, otherwhiles few, as therase requireth. The Tents are sometime made of cloth, otherwhiles of spunges or roots of certaine Plants, Brasse, Lead, Silver: some cave within, others not; of length and greatnesse according to the hurt; some are even, others crooked, yet alwayes round, and are used for divers causes, as when wounds are

Gal com apho. 31. & li. 1. de affic. medici.

Holle li 3 ca 4. De materia chirurgica.

to be amplified or cleansed, also in cave wounds with losse of substance, in contused wounds, altered by the ayre also when the wound is afflicted with phlegmon or any other tumor against nature, also in wounds which come of byting, for such wounds have some venenositie. In wounds with corruption of bone. In all other wounds we use not these things, but induce the siccatrize and consolidate the wound.

Cels. lib. 5.

Consolidation.

Pet. What is Consolidation?

Joh. It is that which hath force to joyne, consolide, and dry the wound, and maketh it like unto the skinne.

Pet. What is Skinne?

Joh. It is nothing else, but the flesh made dry and hard by the worke of nature, and vertue of medicaments, and is like the other skinne, but not of the same nature in all points.

Pet. There are many other things, which may be spoken generally of wounds, which (for want of time) wee will referre till our next meeting: against which time I will bring with me in writting, my opinion of wounds in particular, as well made by Gun-shot, as otherwise? and then we will entreate of Vlcers after the same manner.

Vulnera cur metuis? miles cur martis & ignis?
Omnis in his chartis tuta medela patet.

Chapter II.

¶ Of the curation of Wounds, and first of the Wound in the flesh without losse of substance.

I have spoken in the precedent Chapter, that wounds in the organicke parts receive no curation; now according to your desire I will prosecute these which happen in similar or simple parts, begining with the simple wounds in the flesh, which is without losse of substance, either with accidents or without. As for the causes, signes, and Judgements, you have heard sufficiently in the precedent Chapter:

ter: but for the Cure, the simple wound in the flesh, healeth by joining the lippes of it together and helpe of nature: yet for the more assurance we use to let it bleed a little, if it hath not bled sufficiently already; next we dresse it with a cleane cloth or soft spunge, then we close, and put on it the white of an Egge with lynt, bind the wound, and stirre it not in two or three dayes; the white of the egge preserveth it from inflammation, heate, dolour, and bleeding. If the wound be great that it joyneth not by the simple ligator, we use a suture, with powders incarnative or retentives, composed of *Sanguis draconis*, Thus, Mastick Bolarminie, wheat flower, all mingled with whites of Eggs, and a little oyle of Roses, with lynt on it as before. Also a double cloth broader than the wound, wet with oyle of Roses and Vinegar, binde it, and stirre it not for two or three dayes, if accidents doe not chance; and being removed, wash it with warme Claret wine, wetting plumations in the same wine, which have the vertue to drye and comfort. If the wound be deepe and these remedies not sufficient, we make a liquor of oyle of Hypericon and Turpentine, with the yolke of an Egge, or a little of my balme set down in the Chapter of Gunshot, I use, especially following the warres, this digestive made of yolkes of Egges hard rosted, and beaten with a little oyle of Hypericon, Turpentine, and Myrrhe, so this keepes a longe time, and bringeth the wound to matter, the which not avoyding for the scituation, which is too high, we scituate the part in such sort, that the oriface is lowest; as for example, if the wound be in the thigh, and there be a cavity in the knee, we scituate the knee in such sort, that is much hygher then the thigh, if it avoyde not that time, and the cavitie be great, we make incision in the bottome of the cavitie, or cut it altogether. Thou maist know which of those issues is best by the greatnesse of the wound and nature of the part, it shall be best to make it in the bottome of the cavity, using a hollow tent in it to avoyde the matter. We use also a seton, which is a little cord or peece of cloth, rolled in

Cure.

Ga 3. & 4 metho. cap 10. Hip. lib. de vlc. & Celsus lib 5. cap 26.

Gal 3. Thera. cap 4 & 3. meth cap. 10.

Gal. 4. meth. cap. 4 Gordo part. 1.

Holler de mater. Chirurgica.

Gal li. 3 meth.

Celf lib cap 26

Bruaus, Guydo.

Gal 3. meth. in forme of a cord, annoynted with some liquor mundificative, drawing it sometime from one issue to another, and so continuing till it be cleansed, dressing it twice a day, thereafter I use some glutinative medicine, as you shall heare in the next Chapter.

Chapter III.

¶ Of the composed Wound, with losse of Substance.

Definition. THE composed Wound is when there is losse of substance, to wit, skinn, flesh, and bones: for the Cure we use two intentions, that is, reparation of the substance lost, and induction of the siccatrize: that which is lost, if the body be well disposed, it is repaired by nature only, using in the meane time medicaments that are cleansing and drying. If the flesh renue not in his fashion, we use medicaments sarcotickes, which shall be made of *Iris* of *Florence*, *Thus*, *Mastiche*, *Aloe*, *Colophonie*, *Pix resina*, *Farinia*, *Hordie*, *Orobi*, *Fenugreci Lupinorum*, *Opopanax*, *Myrrha*, *Sarcocolla*, and *sanguinis draconis*: with *unguentum aureum mesue*. If the wound be deepe, mix some of these powders with Wine, and wash the wound with Turpentine in forme of unguent, and put it in the wound either with plumations or tents, dresse it twice a day in Sommer, & once in Winter, using an emplaister that dryeth and comforteth with bandages. In these wounds there are foure intentions to be observed; first, to ingender such substance as is lost, secondly, to know the temperature of the body and hurt part, to the effect, we may judge, whether the medicaments should be cold hot or dry; thirdly, to know the accidents which happen to the sore; fourthly, the region, ayre, and way of life. The wound being filled up, we induce the siccatrize with epulotick medicaments, as red Desiccative, Album Rasis, Ceruse, Plantine, also to wash the wound with

Cure.
Gal li 4 meth. & artis parve. cap 92
Gal li. 1. cap. 1. de cõpos. phar.
Gal meth ca. 3.

with wine wherein hath bæn sod Balaust & Allom, or this emplayster. *Rec. Tuthiæ preparatæ, plumbi crudi, antimonii crudi corticis mali granati, balaustorum, nucum gallarum, bolli armoniaci sanguinis draconis, an. drag. 1. accipiantur omnia simul cum unguento epompholigos. unc. 3. fiat magdaleon bone consistentiæ*, you shall find divers other remedies set down by *Holler*. Take hæd that the stecatrize be neither high, low, hard, soft, nor inequall: the high happeneth when it is not dryed enough, & must be mended by scarrifications, medicaments catereticks and corrosives; the low, contrariwise, cometh through lack of some pæce of bone, or too much drying, and is helped only by frictions, the inequality commeth through the points of the nædles, which hath bæn over-thick and ill done, and is helped by medicaments, emollients, discutients and astringents.

Gal 3. meth. cap. 5.

Lib. 1 de mate. chirurgic. ca 4.

Hippo com in apho 45. lib 6.

CHAPTER IV.

¶ Of the contused Wound.

Definition.

THe contused Wound, to the which chanceth great accidents, according to the Instrument it is done with, is a kind of solution of continuitie, made with a bruise, and is called by *Gallen* and som late writers *Echymosis*, in Græck *Thasma* and *Nygma*, in Latine *Atricis* and *Contusio*; in the which there is separation and dilaceration of the flesh and muscles thereof, with great quantity of blood, and differeth somwhat from attrition, as saith *Avicen* for contusion happeneth in the fleshy parts, and attrition is done in the heads and ends of the muscles. The Signes are like unto other wounds, with inequallitie and roughness in the flesh and skinne, diversitie of figure, according to the diversitie of the cause, the part and parts about are black and livid, by reason of the blood which is out of his place and remaineth in these parts and cannot be evacuated by sensible or insensible transpiration, but by suppuration. The Judgements

4 Theurapenticorum & com. in aph 20 li. 6.

Gal l. 4. meth. cap ult.

Signes.

Judgements.

ments, shall be according to the greatnesse of the hurt, for great contusions are dangerous, for the corruption of the member, and consequently the body also. As for the Cure there are foure intentions: first, to stay the flux, if the contusion be with wound, as oft happeneth: but if without wound chiefly in the head, I use only oyle of Mar, or new Ware it selfe applyed in form of a playster: next to stay the fluxion of humors on the part by evacuation, as purgations, bleeding, ventosing, ligatours, frictions, good regiment in unnaturall things: thirdly, in using particular remedies; first digestives, for such wounds must suddainly be brought to suppuration, for the which, use this cataplasm of Mallowes, Violets, Althea sodden in fresh broth, putting to it a little Barley-flower, Butter, Basilicon, and the yolkes of Egs, with a digestive: Or this, take Ware, Turpentine, Calves grease, Goose-grease, Hony, Myrrhe, oyle of Roses, mingle all together. To appease the dolour, use oyle of Cammomill, Roses, Lillies, Myrtles, Dryodin, and Bolarmenie. The fourth intention is, in correcting of the accidents, as dolour, Apostume, Gangren, for which use such remedies as you have heard in the second Booke. The wound suppured, and the accidents corrigeb, it must be cleansed with hony of Roses and Turpentine, Mundificative *de appio Apostolorum*, and such like, as you shall heare in the last Booke. Being cleansed, we use incarnatives and disiccatives, as was set downe in the former Chapter.

Cure.

Hip li de ulce. & vulne. capi. Cels li. 5 ca 19

Celsus, Paulu

Gal. de compos. medicament. & Ætius lib. 5.

Chapter V.

¶ Of Wounds done by Gun-shot.

Anton. Ferrus de archib. vul.

I have spoken of simple, compound, and contused wounds; now will I entreat of wounds with dilaceration and loss of soft and hard parts, and is made by divers sorts of Instruments, as bullets of Lead, Iron, Steel, Brasse, Stones, and

and other such like matter in divers figures, as round, triangular, quadrangular, pointed, flat, little, and great, which sometime penetrate, sometime not, whereof our Ancients have made no mention, except only Celsus lib. 7. cap. 5. who telleth not with what Instrument they were shot with: therefore though some have written of late, yet because they are of divers opinions, and written in sundry languages, I will shew my opinion touching the same, not making any mention of others who have written of the same. These kind of wounds are accompanied with tumor, dilaceration of flesh, vaines, arteries, nerves, tendons, ligaments, and bones superficiall, profound; otherwhiles through the body, and according to the difference, the Chyrurgion must take his indication to diversifie the remedie: in like manner, Apostheme, dolour, corruption of the parts gangrened, and mortified through the great abundance of blood, dispersed betwixt the muscles: also for the dissipation of the naturall heate, sometime one only accident, otherwhiles divers together, for the which we use two curative intentions, to wit, restitution of such things as are lost, and to conjoyne the parts divided. These wounds com indifferently to all parts of our body, whereof there are divers opinions; some think that there is venenositie in the powder, and burning in the bullet, which is false, for the things whereof the powder is ordinarily made, as Brimstone, Saltpeeter, coals of divers sorts of trees, Water, Wine, and aqua vite, have no venenositie in them; likewise, there is no burning in the bullet, for if the bullet of lead being shot a great way; should burn, through heat would be melted it self. I have cured divers within these thirtie yeers of divers Nations, which have followed the Warrs in France, and other Countries, in the which I have found no more difficultie than in other contused wounds: so I think these accidents come only by contusion and dilaceration of the flesh, and not by any venenositie, or ustion: yet there may be some extraordinary mixion in

Barthol. magi. de vuln schlopitorum curat.

No burning in the Bullet.

in the powder, which causeth venome, for the which we take some other indication, according to the thing. The Causes, Signes, Differences, and Judgements, are not much different from those of other wounds set down, and sufficiently discoursed in the generall Chapter; as for the Cure there are five intentions; First, to draw the ball; secondly, to appease the dolour thirdly, to cause suppuration; fourthly, in mundifying generation of flesh and consolidation; fifthly, in correction of the accidents. As touching the first and second, to draw out the bullet and appease the dolour, I have discoursed at length in the general Chapter, nevertheleſſe, because in these wounds there is vehement dolour, which weakneth the sick, hindereth nature, causeth flurion, letteth suppuration, and consumeth the flesh which is contused; I will set down things more particularly for the appeasing thereof, in changing the temparature of the whole body, in due usage of the six unnaturall things, by purgations, bleeding, and abstaining from things which cause dolour, as great tents, sections, straight bandages, wrong situation of the part, incision, unleſſe there be great neede. The topicall remedies, as cataplasmes with bread, milke, yolkes of eggs, and a little Saffron, also Mallowes sodden and beaten with wheat flower, oyle of Roses, Hogs grease, and Saffron, are good: Or this, *Rec. Sanguis draconis, boli armenici an. unc. 1. pulveris rosarum & myrtilorum an. unc. di. aceti unc. 1. albumina ovorum quatuor, oleo rosacei quantum sufficit, fiat unguentum.* If there be great heat, oyle of Roses, with whites of Eggs and Vinegar, layd about, and on the part, is good. Also *cerat Galen*, or *unguent. rosat. mesues*, with *bolarmenie, Sanguis draconis*, powder of Roses and Myrtles. If we feare inflamation, which oft chanceth till the seaventh day, use the same remedies and shift them twice or thrice a day. The tents shall be soft, wet in Turpentine, with a little oyle of Hypericon and aqua vitæ, according to the nature of the part, and use this remedie hot, and continue it till the inflamation be past, let the sick eat

Cure.
5 Intentions to draw balls.

Gal therapeu
Intentions to appease dolor.

and

and drink little, that he ingender no superfluities. Avicen counselleth to give meat to the sick only for sustentation of nature, abstaining from wine, for it is enemie to all wounds, drink sodden water with Sugar, or Honey, or ptysane, till the inflamation be past, keep rest and quietnesse, abstaining from all actions of the spirit, watching, and women, according to the disposition and nature of the hurt. *Hippo lib. 5. apho 17.*

The third intention consisteth in medicaments suppuratives, which must bee done with speed, to the end, they be lesse subject to inflamation, using remedies which are of quality hot and dry, with vertue to correct the putrefaction, and let the Gangren and mortification of the part: there are of divers forms; the simples are made of oile of Hypericon, yolk of Eggs, Lynt-seed, Lillies, Turpentine, Myrrhe, and such like: Or this, *Rec. Terbinthine unc. 2 cortices thuris dra. 1 mastichis drag. 3. olei hypericonis, & rosarum an parum, vitellum unius ovi fiat medicamentum.* Or this, which I most commonly use of Hypericon, Turpentine and yolks of Eggs, or my balm which is excellent in all kinds of wounds, made thus, *Rec. summitatum & florum scrophulariæ & hypericonis an. quantum volveris, ophyoglossi, vel herbe carpentariorum & consolidæ regis an. quantum volveris, terebinthinæ venetæ quantum sufficit, macerentur in sufficienti quantitate olei hypericonis, insolentur omnia in sole calidissimo spatio 40. dierum in vase plumbeo, vel vitreo duplicato postea fiat fortis expressia, servetur liquor pro balsamo.* 3 Intention. *Hippo li. de ult. sect 7.*

The fourth intention is to mundifie and regenerat that which is lost, which must be don with things that have little or no mordication or sharpness, according to the nature of the part, as this, take sirupe of Roses, Violets, Fumetarie, Wormewood, Honie of Roses, *unguent. de apio, apostolorum fuscum Ægyptiacum*: Or this, take Turpentine, hony of Roses, Iris of Florence, Barly flower, *Succi apii*, of each a little, and make an unguent. If there be great putrefaction, and the matter in great abundance, use this, *Rec. Terebinthine unc 4. vitellorum ovorum unc. 2. unguenti Ægyptiaci drag. 1.* 4 Intention.

drag. 1 fiat mixtio. The wound being mundified & void of all superfluity, we use for the regeneration of flesh, *unguentum aureum, basilicon majus, emplastrum de betonica, diapalma, tetra pharmacum, gratia dei, oleum mastichini & absinthii,* mixe therewith a little flowre of Barley, Lupines, and Orob, with Thus, Myrre, Mastick and Aloes. Sometime we use in these sorts of wounds, a certaine drinke called *potion vulnerar,* wherewith we wash the wound, and is thus made, *Rec. consolidæ majoris & mediæ, serpentariæ, linguæ canis coruinæ, herbe Robertiglycirize pimpinellæ, artemisiæ, scabiosæ, plantaginis, aristilochiæ, agrimoniæ, betonicæ, pedis columbini, capilli veneris, centauriæ majoris & minoris, gajaci, salci parelle, mille folii, baccharum lauri, cupatorii, absinthii, rom. petrosolini, mille folii, arnoglossa, caudæ equina,* tops of Colwort, reddish, siccorie, horse hoofe, of which, all or some make a decoction in water and armotrize it with Cinamond, Honey or Sugar, drink of it twise or thrise a day as it is néedfull, and also thou maist wash the wound, putting thereto a little honey of Roses or sirrup of Roses. The wound being filled with flesh, it must be dried with medicaments epuloticks which by their astriction and drying do harden the flesh, and make a substance like to skinne, as *unguentum desiccativum rubeum diapompholigos, album rasis, diacalcitios, atriapharmacum, cerusse de minio,* mixing therewith *galbanum acasia, sarcocolla, plumbum & æs ustum, allumen, calx lota,* and such like. The fift intention is in correcting the accidents, which are divers and great, for some come by accidents, or some are sharpe féeling of the part hurt, as dolour, inflamation, convulsion, feber, & such like, some come through violence of ꝑ bullet, as extinction of the natural heate of the part, hemoragie, dilaceration, contusion of the nerves, fractures of the bones, and some by the ignorance of the Chyrrugion, for the which cause he must be diligent, to stop such accidents, and if they happen, to helpe them with spéed.

Barthol. magi de schlopitorũ vulner. curat.

5 Intention.

CHAP-

Chapter VI.

¶ Of burning with Gun-powder.

It happeneth oftentimes in Armes that men are nèer shot, and sometimes in handling of powder, or by firing of flaskes which often chanceth, by the which ensueth great accidents; in so much that the affected part by the violence of the fire is altogether destitute of the proper humiditie, and drieth up in such sort, that it maketh an escharre in the skin and flesh, chiefly if the shot or powder be nèer unto the part. As for the Cure of the which, the Chyrurgion should with all possible diligence remove the intemperature which chiefly consisteth in the softning of the escharre, and may be done two waies; the one, by topicall remedies and digestives, which doth not too much heat, nor hath the vertue to inflame. The other is done with such medicaments as have the vertue to pacifie the pain and preserve from putrefaction; such medicaments must be applied about the wound, and on the escharre with Cotton, Lynt, or pèces of cloth trampled in those medicaments made of two yolks of egs, beaten with oile of Rokes, some Barley-flower, and a little Bolarmenie. It shall be necessary to put a double linnen cloth about the wound, soakt in oile of Roses and yolks of eggs beaten together, take not away the escharre with violence; but let it fall off it self, which done and the pain pacified, you shall mundifie, cleanse, incarnate, and siccatrize the wound, as in others you have heard: for this purpose I have often used this Unguent, which doth heal without any mark, as thus. *Rec. Albumen. ovorum numero duo, tutii alexandrini, calcis vivæ novies lotæ unc. 2 ceræ recentis, unc. 1 misceantur cum oleo rosaceo, quantum sufficit, fiat unguentum:* Or this, which I did learn of an old Parisian Priest, who vaunteth himself to be very expert in healing any kinde of burning by this liquor. Take five or eight Neats-fèet, bruise them

Cure.

Pa li. 4. ca 15. Rol. li 4 ca 13. 11.

Alphonsus Ferrus.

Guersica de vul filopeto.

them well, and boile them in water till they be all consumed, then take the grease of them and put in a glasse in the Sunne, or before the fire in Winter, powre out the water if any be, cover it close and keep it, of the which you shall put upon a linnen cloth, and apply to the sore. Remove not the cloth untill it be whole, but only annoint it ever being dry with a Goose-quill, so it shall be whole in short space without mark: Some doe use for this purpose oile of Linget or small water, also sheeps dung fried with hogs grease till it be dissolved, adding thereto a little Verjuice, passe it through a cloth and annoint the burnt part.

Chapter VII.

¶ Of Wounds in the Vaines and Arteries.

HAving spoken of the wounds in the flesh, in like manner you shall heat of them in the vains and arteries, either with losse of substance, or without losse, which are accompanied with great flux of blood, which happeneth when the orifice of the vain is opened, and is done by incision and imbecillitie of the vains, abundance of blood, or some sharp qualitie, and when their tunicks are divided, contused, and pearced, or else when the blood goeth through the veins, as the sweat through the skinn, the tunicks and membrains are divided by some externall cause, as contusion, ryding, shooting, falls in divers manners. The Signs are these, if the flux be of the arterie, or vain; of the arterie, the blood cometh leaping out subtilly red and hot. If it be more grosse, black, and thick, and not leaping, it procéedeth of the vaines, as saith Avicen. The Judgements are, If the blood come out in great abundance, it is dangerous, chiefly when there is either convulsion, skinn, sounding, belching, or raving; if it be not staied it causeth death, because it is the treasure of life. As for the Cure, There are two intentions, the first to stay the blood, the second to conglutinate the wound:

Dru li. 1 ca. 12.

Gal. 5 metho. cap. 2 & 12. Metho cap 7.

Signes Gal. 5. meth. cap 7.

Judgements. Hip a h r f 3 lib 5 & lib 7 apho 9.

Cure. Gui. tract. 3. cap.

wound: the blood is stayed by filling up the wound with dry lint, and above it an astringent or cloth wet in vinegar; if that stay it not, remove the lynt often and wet it in Vinegar, which staunch eth it much: For these things cold and mordicant, stay flux of blood in the wounds: or make this medicament of *Bol armenie, sanguis draconis, thuris, aloes*, of each like quantitie, mix them with the white of an egg and the haires of an old Hare cut small, thereafter bind it reasonable straite, wetting the bands, clothes, and all about it in Oxicrate, touch it not in foure dayes, in touching remove all very softly, if it stick to, humect it with oyle, whites of Egges, or Wine. Some to stay blood, put this powder in the wound, which I have sometime used, viz. Hans blood dryed with burnt cloth, wherewith thou shalt fill the wound full; some apply ventosies, frictions, ligators, on the parts opposite, some hold their thumbe long on the mouth of the vaine, which is a good remedie, for the blood congealeth in the vaine, and so stancheth. If for all these remedies it stancheth it not, we apply on the vaine or arterie a little lint wet in Vinegar with a little powder of Vitreoll, otherwise we knit them as was taught in the Chapter of Aneurisme: if that cannot be done, we cauterize them with hot Irons, taking heede to touch the parts nervous. Shelander counseleth the gumme *Lemnium* sodden in Rennish wine, which hath many vertues, for it digesteth, mundifieth, incarnateth, and is good in wounds of the head, as saith Matheolus. If none of these stanch flux of blood, especially in the vaines jugulars, I have sometimes applyed a little astringent the breadth of the wound, and holden my finger a day or two upon it, by which meanes I have cured divers: if it be in the matrix, intestines, or bladder, it shall be stayed by injections of juice of Plantine, or some astringent powders in used in astringent decoction, and such like, the blood being stayed, the wound is healed as others, having regard to the part, for as the vaine is more dry then the flesh, and more soft, then the arterie, so it must have contrary remedies: in like

Gal. lib. 5. metho cap. 2.

Hippo apho. 20 lib. 5.
Gal. 5. meth. cap. 4
Avic. tract. 2. cap. 18.

Gal principio locorum affectorum cap 7.

Shelander.
Albuvasis.

Matheolus.

manner the wound in the arterie is harder to be healed, than that in the vaine. Sometime there commeth such flux of blood at the nose, that it is hard to staunch, for the which take an ounce of Boll, the Barke of Pomgranet tree, Balust, and galls, of each three drammes, seed of white Poppie two drames, incorporate all together with the white of an Egge and Vinegar, and apply on the temples and nose; if by this the violent flux doe not stay, take foure graines of my *Requies*, which infallibly stayeth all fluxes; otherwise follow forth such things as are set downe in the Chapter of Flux of blood at the nose.

My Requies.

CHAPTER VIII.

¶ Of Wounds in the Nerves, Tendons, and Ligaments.

Largfractus. thira parva. Cause. Signes. *Gal. meth. 4 cap. 6. & 6 lib. 2.*

CUttes and thrusts in the nerves chance in divers parts of our bodies, and in divers manners, according to the instrument it is done with, some are simple, others composed, superficiall, profound, according to the diversitie, of the which we must diversifie the remedie. The Causes ye have heard in the generall Chapter. The Signes are known by offending of the moving and feeling, and by the vehement dolour, which causeth fluxion, fever, spasme, raving, inflamation, and fluxion on the nerves. The Judgements are, that all wounds in the parts nervous are dangerous, for the great communication they have with the braines, and the nerve halfe cut, is more dangerous and dolorous than if it were al cut, which if so be the action of the member doth decay, or at the least some part thereof: also wounds in the joynts are for the most part mortall, because of the Aponeurisis of the Tendons and membraines that they are covered and knit with, so evill accidents doe happen, chiefly being profound. As for the Cure, if the body be full of humors, purge and let blood, with quiet lying and strict dyet, if the

Judgements.

Brunus lib 1. Chirur. cap. 5

Gal. 6 therru

if the nerve be thrust, beware of putting to it any medicines conglutinatives, but first of all some gentle remedies to appease the dolour, hold the wound open: if it be narrow and deep, incise it that the matter may passe more easily, then put in the wound a medicament that heateth and dryeth, to wit, oile of Hypericon, Turpentine of Venice, Aquavite, and a little Euphorbe, some put to the Turpentine and oyle of Hypericon, a little quick-sulphure, rub thereabout with oyle of Sage, Turpentine and Annisseeds, which must be reiterated twice or thrice every day. If there be putrefaction or inflamation, use a cataplasm made of Barly-meal, Lynt-seed, Dreb sodden in Sapa, Vinegar, or Drymell: sometimes cometh picking of the nerve in the armes by bleeding, for the which use this set down by *Mesues*. Take two ounces of oyle of Olive, of salt two ounces, seethe them together and put to it oyle of Turpentine, and put it hote in the wound: if dolour happen, it shal be appeased as ye have heard in the generall Chapter: if convulsion, rub the head, neck, back, and under the armes, with oyle of Lyllies, Bayes, *costini & umbricorum*, Hennes grease, Calves marrows, unguent *de althea*: if the nerve be cut in length and appeareth to the sight, abstain from all sharp remedies, as Euphorbe, use *Diapampholigos* dissolved in oyle of Roses. Also this remedy of hony dissolved in oyle of Roses, Ware, a little Turpentine, all which remedies must be applyed warme. If there be much matter in the wound, dresse it softly with bumbast, or washed with sweet wine, and lay on it the emplaster *Triapharmacon* or *Enea-pharmacon*. If the nerve be cut overthwart, there is great danger of convulsion and inflammation, for the fibres which are cut communicat with the uncut. For the Cure of the which, rest, keep dyet, and draw blood, with such other remedies as ye have heard. If the nerve be contused, and the skin also, and ulcered, it requireth a medicament drying, and binding the parts disjoyned, made of Drymell, flower of Beanes and Dreb sodden together, puting thereto a little

Rol li 3 cap 5.

Pa. li 4 ca. 54. Gal. meth 6. Gal. cap. 6 de com med c Ætius lib 4. cap. 27.

Gal. 6 meth. cap 2. & 3. Mesues de ægritud. lib 6. cap. 3.

Gal. 6. meth. cap. 2. Hippo. lib. 5. apho. 13.

Gal. 6. meth. cap 3.

flower of Ervy, also to rubbe the part with oyle of Roses, and the white of an egge, thereafter foment the wound with warme wine. If the nerve be contused without offence of the skinne, rubbe it with oyle of Camomill, Iris, and Rue. If the tendons be hurt, which is a substance mixed with nerves and ligaments, they have the same cure that nerves have, but the medicament must be more strong and dry. If the ligaments be hurt, which are like the nerves & tendons, it requireth a stronger medicament, for they have little feeling, not communicating with the brains, they proceed from the bone, and goe to the bone, so any medicament drying may be used without offence: thereafter fill up the flesh, and consolide the wound, as others.

Gal. 6. meth. cap. 4. Gal. de comp. Phar. lib. 3. cap. 4 & 9.

CHAPTER IX.

¶ Of Wounds which happen by byting of venomous Beasts.

Celf li. 5 ca. 27. Paul li. 5. ca 8.

Seeing wee have spoken sufficiently of most parte of woundes done by instruments and things inanimate, now it resteth to speake of those which are done by living creatures, as men, horses, oxen swine, bees, apes, serpents, and divers others, the which are not without venome. The Signes are evident: the Judgements are, that those which are venomous, are most dangerous, for if good order be not taken, they goe to noble parts, so that death doth ensue: Paulus Ægineta reporteth that mans biting when he is fasting in the morning, is very venomous. Gordonius lib. 5. cap. 25. &c. saith, that the biting of a madde dogge is most dangerous, for albeit the sick feele not much in the beginning, yet after a moneth or a yeare it doth appeare, for in that time it seeketh the heart, being of nature and qualitie to seeke the destruction thereof. I knew a boy in London bitten with a madde dogge, and being well six weekes dyed afterwardes. Antonius Benevenius counseleth to take

Signes Judgements.

Celf. ibid. Pli li 23. ca. 1. Arnald lib 3. brevi. cap. 13.

take Treacle with wine and minister to such as are bitten, or hurt by venomous beasts, also the herb *Betonica*, bruised and put on the wound; in like manner it shall be good to apply ventosies with scarrifications, also sucking with the mouth by medicaments attractives, by cauters and such like. If the wound be little, wee wash it with Drycrate warme, after the ventosies are taken away, it shall be good to open little Dogs, Cats, or Foules and lay on it, sometime to apply cauters actuals, to consume all that which is affected. If the beast be very venomous, Salt or Brynne with a little Honie, in the which Nepeta hath beene sodden is very good. And likewise the Treacle of Andromach applied in form of a plaister. Or this, *Rec. picis nigræ, axungia vervicinæ, olei antiqui an. partem unam galbani unc. 1. fiat unguentum*: the unguent of Divus is good for all wounds both venomous and not venomous, in all this time we must comfort the noble parts, give drinks of triacle and mithridate, and let not the sick sleep. If the venom be dispersed through the body, use purging, vomiting and bleeding, also provocation of sweat and urine. The venome by these meanes being taken away, proceede in the cure, as is sayd in other wounds. As for the sting of the Bee you shall presently pull it out, thereafter rub the part with the juice of Mallowes.

Cure.

Paul. 5. ca. 27. Gal. 13. thera. cap. 6. Diosc. li. 8 ca. 14 Theodor. lib. 2. cap. 19. Ætius lib 4. serm 1 cap. 10.

Paul. 5. cap. 5.

CHAPTER X.

¶ Of Wounds in the Bones.

HAving spoken of wounds in the flesh, vaines, arteries, nerves, ligaments and tendons, now we will intreat of those which happen in the bones, which is an incision done by some instrument that cutteth, thrusteth or breaketh, sometime superficiall, otherwhiles through the substance thereof. The Judgements as saith *Hippocrates*, if Erysipelas doe happen in a bone uncovered, it is an evill signe:

Definition. *Gal 6 therap.*

Judgements.

Fillop. expo. in librum.
Hip. de vul Lib. 1. cap. 16
Lib 9. suæ medicinæ

signe: if the great bones be hurt, as the thigh, legge, or arme, it is without all question very dangerous, if by the stroke of instrument any peece of bone be seperated, thou must by fit medicaments helpe the separation, and not draw it by force, for that causeth great accidents, as fistulaes, fevers, sincope, convulsion; as saith Avicen. The Cure is not different from the curation of other wounds, if the bone be broken or cut, it must be bound and dressed as yee shall heare in the Chapter of fractures. If it be discovered, we put on it, as counseleth Avicen, the powder of myrrhe, which causeth the flesh to grow on it, then use incarnatives, desiccatives, and cicatrize the wound as others.

Cure.

Avi. lib. 9. suæ medicinæ

Chapter XI.

¶ Of Wounds in the Head.

HEre it shall be necessary to understand, that in our bodies there are three noble parts, whereby we are governed, and without them can doe nothing, as the braines, the heart, and the liver, for the which three parts nature hath ordained for every one a severall domicill, as the head for the braines, the thorall or breast for the heart, and the inferior venter for the liver, the which three domicilles being wounded, there must some other particularities be observed for curation thereof, then yee have heard. Therefore wee will discourse of them severally, and first of the head. The head, wherein are contained the braines, is subject to solution of continuitie, which sometime is simple, otherwhiles composed with fracture of the crane, some penetrateth the membrains, other the proper substance of ye brains. The Cause and Judgements are, as yee have heard in the Chapter generall of Wounds. The Signes of the simple are as in others: the signes of fractures mortall in the skull, are fever before 13. dayes in Winter, and 7. dayes in Sommer, evill colour of the wound, livide, little quantitie of matter,

Definition.
Hip. de vulner. capitis.

Cause.
Judgements.
Signes.

matter, the skinn drie and aride, the toungue blacke, avoyding unawares of excrements and water, the sick raveth, pustules in the tongue, convulsion in the part opposite, some fall into Apoplexie, and death followeth. The signes of healing of fractures in the head, if after the head be trepained, or the bone cut out by stroke or otherwise, the membraine called dura mater, being of naturall colour and moving, the flesh that groweth, be red, the sick remooving well his neck and jawes, all these are good signes; otherwise not. The simple Wound is cured as others: the composed with fracture and other accidents is cured after divers manners, according to the diversitie of the fracture, as yee shall heare. The bone is sometime broken superficially, otherwhiles to the middest, and sometime thorough both the Tables, offending the membraines that cover the braines of the which fractures there are five kinds, the first is called fissure or cleft, which shall be knowne by incision of flesh to the pan in forme of S. George crosse, then separate the crane from the pericrane, put in lynt or caddie to dilate the wound, to the end the trepan or other instrument touch not the flesh: if in cutting any vaine or arterie it bleed, it must be knit. Thou shalt know the cleft by rubbing on it with thy nayle, which if you suspect to be in both the tables, cause the sick to hold his mouth and eyes close, holding in his breath, and if there issue out humiditie by the cleft, be assured that both the tables be riven, for the which wee must either with trepan, rongin, or other instrument cut the bone to *dura mater* taking away the least you can of the said bone as counseleth Celsus, giving onely issue to the blood and matter contained in the place. The second kind of fracture is called contusion, which is oftentimes so great, that it separateth the crane from the flesh, for the remedies whereof we use sections to evacuate the blood, yet applying no humide remedies which are contrarie to the bone of the head: sometime the cranium is pressed in by the stroke, chiefly in children, that have the bone yet soft, which sometime rise of themselves,

Cure.

Rol li 1 cap. 2. Hip. lib. de vulneribus capitis.

S. Georges Crosse.

Fillop. exposit. in lib. Hip de vulne capitis. cap. 23.

Langfractus. Chirur. parva. cap. 8.

themselves, if not we apply ventosses and cause the sick to hold in his breath to make it rise, emplaisters which have the force to draw. If for all this it doth not rise, incise the flesh and apply a tirefound, if that be not sufficient, apply a trepan, then an elevator. The third kind, is pressing down of cranium which cometh by the weight of the Instrument it is done with, or else with a fall from some high place and is reduced as the precedent, if it be pressed down by peces, it must be lifted with the elevator or pincetts, meet to draw these peces, without the membrains, apply not the trepan if the bones be altogether broken. The fourth kind, is called incision in the bone, whereof there are divers kinds according to the diversitie of the Instrument, according to the which we must divert the remedies: if it chance the flesh and bone be all cut, thou shalt by the counsell of Celsus, evacuate the blood if any be, cleanse and dresse well the wound close the bone with the flesh, sow up the wound, leaving a space for the tent to evacuate the matter in both sides. The fift kind of fracture, is called counterclift, that is, when the cleft of the bone is in the part opposite to the fore, and of all fractures this is the worst, and deceiveth most the Chyrurgion, for in it there is no signe but conjecture, and by feeling of the hurt man, in oft putting his hand on the place, and if he got the stroak with violence, falling after he got it, and did vomit, notwithstanding there be no cleft where he got the stroke. I have known sundry die in this case, chiefly of the battle of Sandlis in France a valiant Captain of Paris, who had a stroak on the right parietary, who notwithstanding of all handling by skilfull Chyrurgions, dyed within twentie daies, at which time his *Cranium* was opened, and there was found great quantitie of blood under the left parietarie, with a cleft in the same. There is another kind of maladie, called commotion or astonishment of the brains, the which causeth the same accidents, as the fracture of the *Cranium*, and is caused by falls from high places, stroaks, shot of bullets, launces, or by the sound of a Cannon-shot, or

Celsus.

Captain.
Mutio.

Astonishment

or with the hand, as saith Hippocrates speaking of a man, who gave a young woman in playing; a little blow on the os bregma, who incontinent toke a feaver and convulsion, voyded humors by the eare, and so dyed. *Sepi demorum.*

We must understand that any violent stroke may astonish the head, and be occasion to breake vaines & arteries, not only of those which passe betweene the sutors, but also those betweene the tables, for the suspention of *dura mater*; of the which commeth great flux of blood, which runneth betwixt the bone and membraines, or betwixt the membraine and braines, which afterwards doth rot and cause many accidents, as dimnesse of sight, vomiting of choller, which chanceth by reason of the nerves of the first conjugation that hath connexion with the stomacke; in like manner, inflammation of the membraines, which communicate to all the body, and causeth fever, raving, apostume, corruption in the braines, and death. The wounds of the head must in no wise be neglected, albeit they be but small, for oftentimes in little wounds come great accidents, and especially in bodies evill disposed. The Cure hereof consisteth, first in abstaining from wine and strong drinke, using Ptyson or sodden water with a little strupe of Violets, or Acetose, called *Potus divinus*, so continue till the accidents be past, let the sick eate little and of good digestion, as Capons, Chickens, Pigeons, Veale, Mutton, and such like, using a straight dyet till the accidents be past, in the meane time he may use Comfits of Carvie, conserves of Roses, for such things keepe the vapours from ascending to the head, the ayre must neither be hot nor cold, keepe moderately, and purge gently with Glisters, bleede in the cephalicke vaine, according to the accidents. Parey telleth of a man, from whom he drew an hundred saucers of blood in foure dayes, who thereby was cured, and otherwise had dyed. Shave the head and apply Cataplasmes of flower of Beanes, and Drymell, with the oyle of Roses, and such like, that are somewhat cold and humide, use frictions and ligators on the extremi-

Divers symptomes.

Cure. *Hip. li de vul. cap 2.*

Parem.

Shave the head.

tios,

ties, ventosies in the shoulders, sometime to open the vain *puppis frontis sub lingua*, and the arterie on the temples. Abstain in the sicknesse, and long after, from women and perturbation of the minde. The particular is thus, first wee consider if the bone be broken, that must be trepained, conged, or lifted, for the doing whereof, the place must first be incised as ye have heard; yet it is not needfull to trepaine in all fractures and clefts, for sometimes the first table is offended, yet not penetrating to the duploy, otherwhiles the duploy contused, the second table whole, sometimes the broken bone is a little lifted, so that the matter contained hath place to passe, and therefore it is not needfull to trepan. If any peece of bone do fall on the *dura mater*, it must be drawn by fit instruments, the Trepan is good, when the clefts are so little that the matter cannot evacuate, yet it is not meet to trepain in all fractures as yee have heard, not to discover the brains, without necessitie and good judgement, so that the yong Chyrurgion may not so hastily, as in time past, trepan for every simple fracture: I will shew when trepaning should be used, for what cause, and in what places, also the way to trepain well. First, the Chyrurgion shall well consider the stroak and symptomes, if it be little and the vain betwixt the two tables, or those that hold up the *dura mater*, with the crane be offended, and the blood fallen on the membrain, then the trepan must be used to withdraw that matter, which otherwise would cause death, sometime it must be used for the out-taking of the little bones that prick the membrain, also that more commodiously we may apply our remedies: In all these things Hippocrates counselleth to trepan. When the fracture is in the first table, wee use the trepan exfoliative to give issue to the blood which is betwixt the tables. The time we should trepan is two or three daies at the furthest after the hurt, long delay causeth defluxion of humors on the *dura mater*, which putrifieth and causeth inflamation, so incontinent after wee have perceived the offence of the crane, and that the membrains suffer, which

Fillop. exposit. in lib. Hip. de vulner. capitis cap. 17. & 28

Hip de locis in homine.

Hip de locis in homine.

Hip. Cel. Avi.

is knowne by the sound or finger, wee should trepan in the beginning: yet some doe stay untill the 7. 10. or 14 day, which is dangerous, for the which cause be advised in judging therein. Then we must know what places may induce the trepain, and which not, for to avoyde divers accidents, considering first if the bone be broken and separated in divers peces, which if it be, the peces must be listed by fit Instruments, and not by the trepan. In like manner, wee must not trepan on the fractures, for that cutteth the vains, arteries, and filaments, which passe betweene the pericrane and *dura mater*, and cause great dolour and hemeragie of blood: for the which cause, if occasion constraine us to trepane in those parts, we apply the trepan on both sides of the suture, for the avoyding of the aforesaid accidents, as also for evacuation of the humor contained. The Trepane in like sort must not be applyed no the open of the head in yong Children, being yet soft and not solide, nor on the temples, for the muscles temporall, where there is abundance of arteries, membraines, and nerves, whereof commeth great flux of blood, fever, convulsion, with other evill accidents, yet if fracture doth chance in those parts, wee apply the trepan a little above the said muscles temporall. Wee must not trepane on the bone *Petrossa*, which is under the said muscle, nor on the bone of the eyes, because there is great cavity, full of ayre and humiditie, ordained by nature to prepare the ayre that goeth to the braines. And these are the places which we should eschew in applying the trepan, yet I have seene some trepanned in these places, and healed, but not without great hazzard. The way to trepane is thus: First scituate the head of the hurt in good scituation, & holden by some body that it doe not wagge, close his eares with Cotton, have a good fire, least the cold ayre enter on the membraines, which may make putrefaction; then the Trepan perforative shall be applyed.

Hip. de vul. capitis 8.

Hip. de fract. capitis.

A Trepan,

A Trepan, with other Instruments for the head.

to

to make a hole for the piramide of the great Trepan, next apply the whole Trepan with the piramide, turning it about softly, till thou hast made away with the teeth of the Trepan, then take out the piramide, otherwise it shall passe and offend the membrains, continue in turning softly the Trepan, sometime to lift it, to put off the sawings of the bone, and when thou art at the duplay, which shall be perceived by the out-comming of the blood you shall consider if it be needfull to passe further, as yee have heard, take good heed in trepanning of the second table, lifting oft the Trepan and sounding if it be neer cut, if it be more cut on the one side than on the other, presse the Trepan on the thickest part, and in this take good heed, for often in cutting the one before the other, thou scratchest the *dura mater*, which causeth inflamation and death: being almost cut, assay with the elevator to draw it without violence, if there be much of the sawings on the *dura mater*, take them out. This I thought good to advertise the young Chyrurgion touching this operation, which being done, thou perceivest if the membrain be inflamed or in any wise altered as oft happeneth and is most dangerous, for which we give glisters, draw blood, and use fomentations on the place of anodines and repercussives. If there be alteration, make a medicine of honey of Roses, sirrope of Wormwood, aqua vite, with a little Alloes and Myrrhe, some add to it a little white wine. If there be great putrefaction, put thereto a little Egyptiac: if there be neither inflamation nor alteration, it shall suffice only a little aqua vite with honey of Roses, so continuing till the membrains be mundified, applying alwaies the medicines hot, and cure it afterwards as other Wounds. Use alwaies as well in this, as all wounds of the head, the emplaister Veneticum, prescribed in The poor Mans Guide and also the emplaister of Betonica, or Diacalcios malared with wine. There is great Judgement to be used in doing this operation, and few there are found that doe it well. Many I have seen of very learned

Fillop exposit. Lib. de vul. cap. cap 36. Celsus.

Fillop lib citato cap 39. & 91. & 92

learned and expert men, and heard of divers to my great joy & comfort, among which M. George Baker sometime Chyrurgion ordinarie to that worthy Prince Queen Elizabeth: and now to his most sacred Majestie, a Man of great learning and experience, most fortunate and dexter in this operation, like as in all other operations of Chyrurgery: God increase the number of such in this Kingdome.

Chapter XII.

¶ Of Wounds in the Thorax.

Definition. The Thorax which is domicill to the heart and lights, suffereth solution of continuity in divers manners, whereof some are externe and doe not penetrate, others penetrate to some of the parts contained therein, as the heart, lights, mediastin & diaphargma, some passe throughout, of the which some are curable, some incurable, and some mortall, as yée have heard in the Chapter Generall, as also the Causes and Signes. Those which penetrate at the back are more dangerous than at the interior part because of the vains, arteries, nerves, and such like. The Cure consisteth in good dyet in the six unnaturall things, purgation, letting of blood according to the temperature of the body, time, and Region. Those which doe not penetrate, differ nothing from the generall of other simple wounds, saving only in binding, which must be incarnative, sometime narrow, otherwhiles broad according to the difference and situation of the wound. Touching those which penetrate, there is great diversity of opinion in the cure, some are of the opinion to consolide the wound as soon as may be to hinder the externe aire to hurt the parts vitall, others give councell to hold them open, and in case the issue be not large enough, to dilate it, and make it larger, that if there bee any blood or other thing in the capacity, it may avoid, but which of these waies ought to be followed, the judgement

Rol. li 3 ca 25.

Cause.

Signes.

Cure.

ment of the expert Chirurgion is to be required: knowing first, if it doth penetrate, which shall bee done in closing his mouth and nose, and then holding a candle to the wound, if the aire cometh forth, it is sure that it penetrates; if there be blood in the capacity, you shall know by the ponderositie of the diaphragma, accompanied with dolor, feber & vomiting: if any chiefe part be offended, ye shal know by the signs set down in the Chapter Generall. If neither blood be shed, nor any part offended, yée shall conglutinate the wound, putting no tent therein, using only a little of my balm set down in the Chapter of Gunshot, in the mean time use one potion vulnerate in such as doth penetrate. If there be any little thing left in the wound, nature will easily discharge it, for (as saith Galen) it doth expell not only that which offendeth, through the pannickles, but also through the middest of the bones. Those which penetrate with effusion of blood on the diaphragma and are not mortall, must be tented with a thread at the tent, to the end that if it goe in, it may be drawn out again, cause the sick to lie on the sore side, chiefly when you dresse him, that the blood and matter may issue at the wound, using alwaies injections of barley, pimpernell, piloselll, buglose, scrofularie, chervill, all sodden in water, putting thereto a little honie or sirrope of roses with a little white wine for a certain time. Sometime the blood cannot evacuate by the wound, it being higher then the diaphragma, which causeth difficulty of respiring, for the which make an issue, as ye have heard in *Empiema*, to evacuate the humor contained, if the putrefaction be great, mixe with the foresaid injection a little egiptiac, the wound being mundified with this or such like, thou shalt use this injection, which is somewhat desiccative. *Rec. rosarum, balaustiorum, myrtilorum an. unc. 1 myrabolani, citrini an. unc. 2 mellis rosati parum, coquantur in aqua plantaginis, ad consumptionem tertiæ partis:* with this thou shalt wash the wound, twise a day.

Signes of the wound penetrate.

Com 7. aphor.

If the body be of an evil temperature, or that the nether part of the lights be hurt, it staieth not quickly, but will void much; then we must use a tent of Lead or Silver, that is hollow within, that the matter may evacuate, we use also this decoction to drink in the morning, fasting four hours after. Take Scabius, Buglosse, Borage, Pimpernell, *Aristolochia*, Agrimonie, Betonie, *Pilosell, an. M. seminum munditarum, seminis hypericonis, & cardui benedicti an unc. 1 florum trium cordialium P. 1 coquantur in aqua, adde in fine vini albi parum, syrupi rosati, & cinamomi an unc. 2* using on the wound the emplaister *Diacalciteos* malaxed in wine. If notwithstanding these remedie, it remaineth long in healing, and doth degender in fistull; for the curation of the which, have recourse to the Book of Ulcers and Chapter of Fistula.

Chapter XIII.

¶ Of Wounds in the Bellie.

The inferiour bellie, wherein the Liver with the Kidneys and Milt are inclosed, is often wounded in divers manners, some penetrates, and some not; offending the parts contained, as the Stomack, Liver, Milt, Kidneyes, Gut, Vains, Arteries, the Epiplon & Vriters, or some other parts: The Causes, Signes, and Judgements whereof, ye have heard in the generall Chapter. The Judgements, those that doe not penetrate, are cured like other simple wounds; those which penetrate into the capacitie, require another manner of cure. Wounds in the side, in the oblique muscles, are not so dangerous as those in the transversall, because that the peritoni is uneasie to sow specially in *musculo recto*, which descendeth from the breast to *os pubis*. Also little wounds in those places are more difficill, than those that are more ample, in them if the guts come out, they tumefie, and so are uneasie to put in again: for the which use such

Cause.
Signes
Judgements.

Pa li 6 ca 52

such remedies as yée have heard in Axumphalon, using the suture Gastorraphick; if the guttes be pearced, they must be sewed with suture pellitor (as was shewed in the generall Chapter) & cast on the wound the powder of Aloes, Mirrhe, Mastick, and Bol, and reduce it softly into the own place, using an emplaister retentive and agglutinative. If the *Ingenium* be sut, it is impossible or most difficill to heale, by reason of the great vaines contained therein, if any of the guttes have changed colour, there is no hope. If the Caule or *Omentum* be altered, it must be knit and reduced, as yée have heard in the generall Chapter. In all wounds in the bellie use Glisters and injections, astringents, and detersives, chiefly if the great intestine, matrix, or bladder be hurt. And so we end this Booke of Wounds, and shall follow out that of Ulcers after the same manner.

Albu. lib 2. cap. 45.

Hip. apho. 58. sect. 6.

Rol. li. 3 ca. 30.

(***)

The seventh Book:

Of Ulcers.

Which containeth X Chapters, whose Contents bee these; By PETER LOVVE *Scottish man.*

Chap. 1. Of Ulcers in generall.
2. Of Ulcers Sanious, and their curation.
3. Of the Ulcer Virulent.
4. Of the Ulcer profound and Cavernous.
5. Of the Ulcer Sordide and Putride.
6. Of Ulcers difficile to cure.
7. Of Ulcers with corruption of the Bones.
8. Of Ulcers Cancrous.
9. Of Fistula.
10. Of Burnings.

CHAPTER I.

¶ Of Ulcers in generall.

Interloquutors *Peter* and *John*.

P. SEeing we have amply spoken of Tumors and Wounds, and of their Definition, Cause, Signes, and Cure; so in like manner wee will proceed in Ulcers, seeing many tumors and wounds doe suppure and degender in Ulcers, so it is needfull after the Book hereof, to speak of Ulcers, and first I demand what is an Ulcer?

Definition. *Gal de con. artis cap.*

Joh. It is a solution of continuitie made by erosion in divers parts of the body, out of the which proceedeth a matter purulent,

purulent, which hindereth the consolidation thereof.

Pet. Are they not different?

Joh. Some differ in nature, in substance, in qualitie, figure, and accidents. Difference of Ulcers.

Pet How differ they in nature and substance?

Joh. Some are simple in the flesh without any other indisposition, as saith Galen; others are composed with one, or moe maladies, as ulcers with intempery, corruption of the bone, Apostbume, nodositie, and divers other accidents. *Tang. lib. 3. Gal lib. 2 met.*

Pet. How differ they in figure and quantitie?

Joh. Some are round, long, profound, superficiall, great, and small.

Pet. How differ th y by accidents?

Joh. Some are putride, dolorous, fistulous, canerous, some are inveterate, some recent, some in one member, some in other places.

Pet. How many causes are there of Ulcers? Causes of Ulcers.

Joh. Three; primitive, antecedent, and conjunct.

Pet. Which are the primities?

Joh. Contusion, scratching, heats, application of sharp medicaments, corrosion, great cold that extinguisheth the naturall heat, chiefly in the extremities.

Pet. Which are the causes antecedent?

Joh. Evill humors in the body, which come of evill nouriture, or evill disposition of the body, or some part thereof, chiefly the Liver, ventricle, and Milt. *Gal. de causis morbor ca 10. & cap 4 meth.*

Pet. How are those humors causes of Ulcers?

Joh. Partly by their evill qualitie, partly through abundance of them, doe spoile, open and corrode the most debill parts of our body, not having force to resist such malignitie, and so causeth Ulcers.

Pet. Which are the conjunct causes?

Joh. The foresaid humors conjoyned in the parts ulcered, as also all other violent things that have force to ulcerate the same part.

Pet. Which are the Signes?

Signes.

Joh. They are evident; or are in the body, & are known by the dolor, nature, or the place, accidents and excrements, and such as you shall hear in the six kindes of proper Ulcers.

Gal com. 3. apho. & lib. 1. de officina Medici & 3. de locis affectis

Pet. Which are those six kindes of Ulcers?

Joh. The first is sanious, 2. virulent, 3 filthie, 4 cancrous, 5. putride or stinking, 6 corrosive or rotten away.

Pet. Have they no other names?

Difference.

Joh. They have five other names, & first by the humors; secondly, by the matter that cometh from them; thirdly, of the accidents; fourthly, of the sicknesse, fiftly, by comparing them to the similitude of Beasts.

Pet. How take they their names by the humors?

Joh. Some are of the Phlegmatick humor, and are called Phlegmaticks, some by the blood, and are called Sanguinous, by the choller Cholerick, and by melancholy Melancholick.

Pet. How take they the names of the matter?

Joh. Of the great abundance of sany or humidite, it is called ulcer sanious, of the pus purulent, of the sordidities it is called sordid, of the virulente it is called virulent.

Pet. How take they their names of the accidents?

Joh. Of the hardnesse called callositte it is hard & callous, of the caverns it is called cavernous, of the fistule it is called fistulous, of the putrefaction putrid, of the corrosion or malignity of the matter corrosive, of the rankers or hardnesse turned over it called cancrous, of the dolor dolorous, of apostheume apostheumous. In al ulcers where any of these reign they heal not till they be taken away.

Pet. What is callositte?

Joh. It is a dry flesh without dolor, because it hath no vain to make it humid, nor nerve to give it feeling.

Pet. How is that called which commonly commeth from ulcers?

Joh. It is called sanie or matter.

Pet. What is Sanie?

Joh. It

Joh. It is a corruption of the part, which nature cannot digest, and make it to nourish the same.

Pet. How many sorts of sanie is there?

Joh. Two; to wit, that which is commendable, as it ought to be, and that which is not.

Pet. Which is commendable?

Joh. It is that which is white, light, equal in consistence, neither thicke, thinne, nor evill tasted.

Pet. Which is not commendable, or evill Sanie?

Joh. It is a corruption of the instrument, much altered through unnaturall heat, and according to that alteration it produceth evil sanie.

Pet. What call you Pus?

Joh. It is a kind of sanie made of the nouriture and superfluitie of the member, tending to corruption by the alteration of the naturall heate and debilitie of the member, out of the which commeth a matter called *virus & sordities*.

Pet. What is Virus?

Joh. It is that which is ingendred of the most subtill and hot part of the pituitous humor, which nature cannot digest for the great abundance thereof; of which Guido alledged foure kindes, cold and hot, red and watrie.

Pet. What is it thou calleſt sordities?

Joh. It is a grosse matter, ingendred of grosse humors. *Gal. lib. 3. met. Gal. 3. metho. cap. 4. 6. & 7.*

Pet. What calleſt thou durities, or hardnesse?

Joh. It is a thing hard and solide, not easie to be corrupted, which may come of three causes, that is, great heate, congelation, repletion, *Gal. lib. de tumoribus contra naturam.*

Pet. What calleſt thou fistula?

Joh. It is a profound ulcer, having the entry, hard, narrow, deepe, cavernous, from the which procedeth a matter virulent.

Pet. What is putrefaction?

Joh. It is a change of the substance of our whole body, or of some part thereof, through an unnaturall heat.

Pet. What is the cause of putrefaction in our bodies?

Joh. It commeth, either that the spirit animall is corrupted, or cannot goe to the part, for cold, heat, apostume, postules, Ulcers, ambulatives, venemous; also putting of oyles and such like in deepe ulcers, doe corrupt the flesh, also too much using of refrigeratives in hot apostumes, and irgators which intercept the spirit.

Three sorts of putrefaction.

Pet. How many sorts of putrefactions are there?

Joh. Three, to wit, Gangren, Ettachiles, and Histiomen.

Pet. What is Gangren?

Joh. It is a putrefaction of the parte having yet feeling, and differeth in that from others.

Pet. What is Ettachiles?

Joh. It is a putrefaction of the member, or parte thereof without feeling, corrupting both flesh and bone.

Pet. What is Histiomen?

Joh. It is a whole corruption of the member, eating and consuming the whole body away.

Pet. What is Corrosion?

Joh. It is a consumption of the flesh, through the bitternesse and sharpnesse of the humor.

Pet. What are the causes of Corrosion?

Joh. The malignitie of the flesh, the humor choller icke-phlegmaticke, soft admixed.

Pet. What calleſt thou Cancer?

Joh. It is a malladie of matter cold and drie, being hot by putrefaction, hardnesse, and other signes, as ye have heard in his proper Chapter.

Judgements.

Pet. What are the judgements?

Joh. There are divers, according to the accidents that fall; and first, that ulcers remaining a yeare or more uncured, make the bone under them altered and rotten, and when such ulcers are whole, there remaineth a cavitie in the parte ulcered all ulcers that are evill coloured black are esteemed malignes, if any ulcer being filled up and ready to cicatrize, begin sodainly to runne againe without

Hippo. 6. lib. 45 apho.

manifest

manifest cause, it is in danger to become fistulous. Hippocrates saith, that ulcers which have no hatre about them, are uneasie to heale and ciccatrize, also those ulcers which come by reason of some maladie, as hydropsie, and cacherie, are hard to heale. Hippocrates saith also, if any man have an ulcer, whether it become to him before his sicknesse, or in the sicknesse, and the sick die, that ulcer shall be before he die, dry, blew, or pale. The same Hippocrates saith also, that those who have ulcers accompanyed with tumor, doe neither fall in convulsion, raving, nor frenzie, but if the tumor, goe away without manifest cause, and if the ulcer be in the back, the sick falleth in spasme: if before in the bodie, in raving and frenzie: if in the thorax before he falleth in empiem and plurisie, all ulcers accompanied with varices, or intemperie; & those also that have the sides hard, are difficile to heale: all ulcers in the extremities af the muscles of the legges and armes, are difficile and dangerous: as also those, which penitrate in the body: such ulcers as chaunce in the extremities of the body, as in the feete, or hands, make oft phlegmons, or other tumors against nature, and in crisis of a maladie, are difficile.

Hip. 6. lib. apho. 5.

Lib 1. preg. cap 6 lib. 10. meth.

Lib. apho. 65.

Pet. Which are those which are of easie curation? Cure.

Joh. Those which happen in bodies of good complexion, and in the which none of the foresaid accidents doe happen.

Pet. Which are the cheife causes that hinder the healing of ulcers?

Joh. According to Galen the chiefe cause is want of good blood to engender flesh, or else that it is evil either by quantitie or quality of it selfe, also dolour, intempery, apostume, contusion, Erisipelas, *Echimosis*, the South wind which is hot, humide and putrefactive, enemie to al wounds and ulcers as saith Guido, also superfluous flesh, hardnes, callosity of the sides, corruption of the bone, varices, hemeragie of blood: also roundnesse in figure, for the which Hippocrates counseleth, if the ulcer be round, to put on it another forme. Imbecilitie of the part ulcered, indisposition of the liver

Celsus lib. 7. cap. 3. 4 meth. cap. 5. & 2. Alex apho. pro. 199. lib 1. & com in apho. 8. ib. 6.

Gal lib 5. vietho cap. 10. lyver or milt, retention of the monethly course in women, and of the hemorrhoides, and also the applying of medicines unmeete for such ulcers. Many ignorant Barbors faile herein, thinking one kinde of emplaister to be good for al sores, in the which they are deceived: for he that would cure ulcers, must first take away ye cause, as also the impediments and accidents, otherwise he travaileth in vaine, as saith Paulus; for the performance whereof, we must ordaine first good diet, secondly, take away the cause antecedent, to wit, the humor which falleth, which shall be done by purging, bleeding, according to the cause and the part: thirdly, correct and heale the accidents and indispositions which accompanie the ulcer: these things done, he may come to the curation hereof, as shall be particularly set downe of every kinde of ulcer, in his proper place.

Pa.li 4 ca. 40. 41. & 42.

Gal. 4. meth. cap. 1.

Chapter II.

¶ Of Vlcers sanious and the Curation thereof.

As in the former Chapter, I have spoken of Ulcers in generall, of their difference, cause, signes, judgements, and cure, so now I will particularly intreat of them. All Ulcers are either simple or composed with some other maladie: the simple Ulcer requireth onely desiccation, those which are composed, and joyned with some other accident, except those accidents be taken away cannot heale, for the cure of the which, there are foure Intentions: first in the way of life, which shall be according to the strength of the sick, nature of the maladie, and abundance of the humors in the bodie; as if the humors be hot and sharpe, wee ordaine cold things. The second Intention is in diverting and intercepting the matter antecedent, which is done by purgations and bleeding if the strength permit, also by fricti-

Gal 4 me. ca. 1.

Cure.

ons,

ons, ligators, application of emplaysters that have the force to repell the matter. The third Intention is in correcting the accidents joyned with the ulcer, as dolour, tumor, contusion, excrescence of the flesh, callositie of the lips, rottennesse of the bone, varice and wormes. First then we must labour to take away the intemperie, which shall be known by the colour of the member, by the touching and feeling of the patient, which sometime is hot, sometime cold, which if it be dry, wee remedie it by purgation and bleeding, also if need be, foment the place with hot water till it grow redd, as counselleth Galen: thereafter use this unguent made of Mallowes, sodden in water with a little hoggs-grease and honey mixed with Nutritum, Ceratum, Galens rosatum, populeon, incorporate with Plantain-water, Morrell and Houslæk. If the Intempery be humid, use unguents that drie, as Pompholigos, de plumbo, cerusa, allom-water, unguent basilicon, citrinum, fuscum, de althea: or this fomentation of Claret-wine, in the which hath been sodden Roses, Betonie, Wormwood, Roch-allom. If the Intempery be cold, wee foment the part only with wine, wherein wormwood hath been sodden, hyssope, calamint, rosemary, unguent basilicon, and de althea. If the Intemperie be hot, wee remedie it by water of Plantine, solanum, houslæk, or unguentum rubrificum, cum camphora, or cerat galeni. If there be dolour with ulcer, which cometh of intempery, erosion, of a subtill humor or solution of continuitie, or plenitude of grosse humors, or a flatuous spirit, for the which take unguent populeon, oile of yolks of eggs, unguentum album camphoratum, with other such as are in tumors, if the dolour be vehement, wee make a cataplasm narcotick of barley-flower, oile of Roses, Henbane, Mandrage, Poppie, all sodden in milk. If the dolour be accompanied with tumor, first look to the cause of it, thereafter, ordain the diet strait and cold, bleeding, purging, according to the nature of the humor, with such particular remedies, as yee have heard in tumors; The excrescence

Gal. lib. 3. ca. 8. & com. in aph. 31. cap. 7.

Gal. lib. 2. ca. 10. & com. in apho. 8.

Gal. 3. meth. cap. 3. & 5.

cence of the flesh shall be taken away with cauters, razors, shears, powder of Mercurie, burnt Alloin, *astrum, squama, æris, unguentum ægiptiacum, apostulorum, vitriolum, romanum.*

Lib. 5 meth. cap. The hardnesse is cured by Remollients and Resolvents, as goose, henns, duck, and calves-grease, oile of Lillies, *lumbricorum, vulpium, muscilaginis,* of *althea* and *fenegreci basilicon, diachilon magnum, de muscilaginibus,* thereafter scarifie

Gal. 4. metho cap. 2. as counselleth Avicen, then put powder of Mercurie or cut it with a Rasor to the soft part. If the ulcer become black and red, scarifie it, and let it bleed well and apply things drying. If it be accompanied with varice, it must be taken away as yee have heard in the Chapter of Varix. If there

Paul 4 ca. 42. be rottennes in the bone, yee shall have recourse to the proper Chapter. If there be worms in the ulcer, we must consume the rottennesse and humiditie they are ingendered of, and kill them also, with the decoction of Wormwood, Agrimony, Marubium, Centory, Calamint, which is good to wash the Ulcers also in the eares, fasting spittle is good for Ulcers in the eares, and other parts, as saith Archigenes and Theodoricus, and make the Cicatrize well savoured, with the foresaid decoction wash the Ulcers, as also with oyle of wormwood, the powder Aloes, mixed with the oile of Absinthe and a little way is very good. Millefolum taken the weight of one dram in white wine killeth the worms in the belly also. The fourth intention consisteth in healing

Gal 5 meth. cap. 13. & 3. meth cap. 3. Paul li. 4 ca. 55 of the places ulcered, which shall be done in taking away the impediments, as yee have heard; thereafter, cicatrize the ulcer with such things as are set down for the consolidation of Wounds.

CHAPTER III.

¶ Of Ulcers virulent and corrosive.

HEre yee shall hear of those two Ulcers which are not much different: those Ulcers which have certain virulencie

lencie and venenositie are called virulent, but after the bitternesse augment and corrodeth the flesh and maketh it greater, it is called corrosive, or eating ulcer, if it eat much of the flesh not going deepe, it is called ambulative, if yet it doth augment, it becommeth in cancer or lupus, as yee shall heare. The cause of these ulcers are evil bilious humors, sharp & biting, the which get some malignitie, venenositie by their adustion, and happen oft after Herpes or wounds that have been irritated by sharp and biting medicaments. The Cure is first in the manner of life, according to the disposition of the body and humors that raigne, next in purging partly for the evacuation of such sharpe humors, thirdly, in applying fit medicines on the ulcer, as if it be very humid, the medicaments must be more drying and like to the part, as this, take water of allom or plantine, decoction of cipres, Mirabalon, bark of Pomgarnet, and such like. If there be great heat in the place, cool it by refrigeratives, and desiccatives. Guydo for such ulcers useth a cake of lead rubbed with quick silver, *unguentum pompholigos, de minio,* or *de plumbo, unguentum rubrum cum camphora,* take any of these mixed with a little *tuthiæ preparatæ plumbi usti, corusæ lotæ,* beaten in a morter of lead, with water of plantine, a little *terra sigillata,* with a little oyle of Roses, make an unguent. If the malignitie be great in the body, drie and consume these humors, with cauters actuall, powder of Mercurie mixed with unguent rosat, till such time the malice be consumed, thereafter wash it with the decoction above specified. If by al these remedies we profit not, or if the patient may not suffer the actuall cauter either through feare or tendernesse, we use the *trochisces* of *diandron de musa, arsinic, copporous,* using alwayes defensives to repercute the fluxion, which may come through ẏ violence of these remedies. If these be not sufficient, Avicen counseleth to cut the member infected and ulcered.

Definition.

Pa. li 4 ca. 44
Lan. cap 11.

Cause.

Lib 4 meth. cap. 4

Cure.

Gal. 12 meth.

Gal li 5 meth. cap. 10.

CHAP.

Chapter IIII.

¶ Of the Ulcer profound and Cavernous.

Definition. The Ulcer cavernous hath the orifice streight and the bottom broad, many cavernes, some right, some obliques, with divers fractuosities, without hardnesse and callositie, & so differ from fistulaes.

Cause. The cause of such Ulcers is Apostumes, wounds evil healed, in the which the matter hath been long retained, and the orifice higher then the bottom, as ye have heard, the partie debilitated, so causeth defluxion of superfluous humors, not only of the part but of all the body.

Signes. Thou shalt know these cavernes by the sound, either of lead, silver, or a war candle, and humor therein contained by the injection, if it be white, & cerusse, it is cold, if it be subtill and reddish, the matter is hot, those that are easie to heale have little matter with deminution of dolour and humor.

Gal ad glau. ca 8 & li tumo contra naturam.

Cure. The Cure of such Ulcers consisteth first in the way of life, with remedies, according to the qualitie of the humor and nature of the part ulcered, as also the scituation, the dolour, intemperie, and other accidents, that entertain the ulcer. As for the topicall remedies, if the orifice be incommodious scituation, that the matter may evacuate, by unguents, emplastters, mundificatives, desiccatives, with ligatures, coppresses, fomentations and injections of red Wine, if the orifice be high, and the bottom low, the member must be scituate in such fashion that the nethermost part be as ye have heard in wounds cavernous. If by the scituation, the matter doth not evacuate, or if it be in such places, that it cannot be so scituated, then make an incision from ꝑ orifice to the bottom with meete instruments, thereafter appease the dolour, and flux of blood; if it be in such parts that this incision be not savely done, then make an issue in the bottom, and put a seton as in wounds cavernous, or a tent with

Gal 3 meth. cap 8 & 9. & li. 4 ca 7. & 2. ad glau cap 8.

Pa. li 4 ca. 40.

with some fit medicine, that mundifieth as you have heard in tumors, or this, *Rec. mellis lib. 2 viridis æris ℥ olei rosati lib. 1 aristolochiæ longæ, alluminis, cerusæ an. unc. 1 fiat unguentum*, or wash with wine and honie called *mulsum*. If the humor be sanguinolent and evill savoured, wash the Ulcer with Drymell, Allom-water or honie, *aqua marina*, with a little egyptiac. Albucasis counselleth to dissolve egyptiac with hydromell, which mundifieth and correcteth the malignitie. If the matter be subtill and watry, take barly, agrimony, centory, wormwood, and seeth in honey and vinegar, it being cleansed use this incarnative & glutinative, take the roots of Iris, Plantine, Agrimony sodden in water and honey. Avicen counselleth the *emplastrum catholicon & centorum*, which is of a marveilous effect in this, put also in the *emplastrum de minio, diacalcitreos* or *nigrum*, composed with galls, honie powder of Iris, aloes, myrrhe, and such like. Togar. setteth a marveilous good medicine to conglutinate Ulcers made thus, *Rec. de cottonia hordei lib. 1 mellis rosati unc. 3 sarcocollæ drag. 2 myrræ, thuris, an drag. 1 vini odoriferi unc. 3 bulliant ad consumtionem tertiæ partis addendo aloes parum*, strain this and put it on and in the ulcers and binde it upward, shift it once a day, till the ulcer be whole, using alwaies the emplaister of Diapalma, mixed in Claret wine, fomentation with wine, coresse, and bandage, wet in the same.

Toga li. 3 cap. 17.

Albu. lib. 2. cap 46.

Lib. meth. 3. cap. 3.

Chapter V.

¶ Of the filthy and rotten Ulcer.

Definition. *Gui. tract. 4. de ulceribus.*

Those Ulcers which are accompanied with abundance of matter thick, tough, and evill coloured, are called by Guy. and others, sordide and filthy, if they augment, rot, and mortifie the flesh, ulcered, voiding a matter evill savoured and cadaverous, they are called ulcers putride. If the malignitie and rottennes becometh in gangren, it is called ulcer

Cause. ulcer gangrenous. The cause is abundance of gross humors, proceeding of an aduction & ebulition of blood, for the which they become venomous and maligne, as chanceth after carbuncles, anthrax, tumors, and wounds, evil dressed. The Cure of them consisteth, in regiment as yee have heard in the Chapter of carbuncle, the using of ý decoction Gajac is good to dry up the humors, and evacuate them by sweating. Avicen commendeth much purging of the body to discharge the part of these evil humors, by medicines mundificatives, like as humidities by drying medicines, by ventosies, scarrifications, horseleaches, epithems. Topical remedies are first to wash the place with hydromell and aqua marina, apostolicon, or egyptiac, put on the ulcer, applying on it an emplaister de bolo, with cloth wet in Oxicrate. If the matter ingender corruption, wash it with Oxicrate, water of cenders or white sope, with this emplaister made of salt fish, flower of Aristolochia longa and oroby, sodden in wine and put on the sore. If this be not sufficient, take this medicament, which is greatly approved by Avicen, *Quod recepit dragaganti rubri dicti auripigment unc. 1. calcis vivæ, aluminis corticis malis punici, singulorum, unc. 6. thuris, galarum, singulorum unc. di. ceræ & olei, an. quantum sufficit, fiat unguentum*, with defensives of Bol. If for all this, the ulcer augment and grow worse, we use more strong remedies to consume the putrefaction, as cauters actuals, razors, or other medicaments that have vertue to make a scale, according to the saying of Hippocrates, that which healeth not by medicaments, it healeth either by yron or fire, which shall be continued till yee come to the good flesh, and shall be known by the colour. Arsenick or Vitriol roman is good to separate the rotten from the whole, being mixed with aqua vite, honie and egiptiac. If by all these remedies yee profit not, but that the evil doth augment, the part must be cut off, for the safetie of the rest, as councelleth Celsus

Cure.

Paul li. 4 ca 45

Gal. 3. meth cap. 6. & 7.

Gui tract. 4 Hally Abbas.

Lib. 7 apho 91.

CHAP.

CHAPTER VI.

¶ Of the Ulcers difficile to heale, called *Cacoethe* and *Chironia*.

YEe have heard, that some Ulcers are easie. some hard, and some indifferent, but those Ulcers which heale not after all things duely used, are called Cacoethicks or malignes, and long in healing, and by Galen, Dispulotica. The Cause is, the evill temparature of the body, as, if the humors be vitiated, called by the Greeks Cacochimie, or if there be abundance of humors, called by the Greeks *plethorie*, they must also be evacuated, the callositie or intemperie in the part must be taken away. The signes are, the diuturnitie of the Ulcer, the indisposition and malice of the humor, the hardnes and callositie of the lippes tumified, there commeth Same in quantitie, but thin, evil savoured, little dolour, sometime healeth, and oft openeth up againe, chiefly in the feet and legges. As for the Cure, yee must take away the cause, and reduce the part to the naturall, otherwise it is impossible to heale it. If there be plentitude, cacochimie, intemperie, either of all the body, or some part interne, as the liver, the milt, the stomacke, or else the part ulcered about it, vice in the humor, or some varix, roundnesse and hardnesse of the Ulcer: first, yee must purge the body, as ye shall finde expedient, bleed if cause require, use good dyet, eate things that ingender good humors, using decoction of *Salsaparilla*, made thus. Take *Salsaparilla unc. 2. guiac unc. 1. di. maceretur per noctem in lib. 8. aqua purissima bulliat lento igne, ad consumptionem mediæ partis, addendo in fine, sanicula bugloss. philosella, pimpernellæ, quinq; nervi. garophilatæ, consolidæ majoris & minoris, capillorum omnium an. m. di. glicirizæ rasæ, unc. di. fiat decoctio, capiat summo mane & sudet, & a prandio unc. 4. sine sudore & alijs horis si voluerit.* This is a most excellent help for all Ulcers. If the fault be in the liver,

Definition.

Cause. *Paul. 4. ca. 46.*

Signes.

Cure. *Gal. 4. meth. cap. 5.*

Gal. 4. meth. cap. 2. & 4.

liver, milt, or stomake, corroborate these parts by advice of the learned Phisitian; if the fault be in the part ulcered, either being tumified with varix, or other accidents, it shall be corrected as in ulcers sanious, as also if it be round. If the fault be in the humors which occupie the ulcer, they must be evacuated All ulcers which are difficile to cicatrize, must have the blood about them evacuated, either by scarrifications, or horseleaches, and washing it with allom water, and such as ye have heard in ulcer putride. If the part about the ulcer be black, livid or redde, scarrifie it, and evacuate well the blood, applying a dry spunge, with medicaments defensives, as in ulcers sanious. If the lippes of the ulcer be callous, hard, and livid, it must be consumed with medicaments, if not that way, we cut the hardnesse to the quick flesh, and let it bleed well to divertize the fluxion, and intercept the cause of the hardnesse. These things all observed, thou shalt follow out the rest of the cure, as is set down in the simple ulcer.

Hip. lib. de ulcerib.

Celsus lib 5. cap. 26
Hip. lib. de ulceribus.
Gal 4 me ca. 2.

Chapter VII

¶ Of Ulcers with corruption of the bone.

Definitio.

There are some ulcers which after they are healed and cicatrized a certaine space, become tumified and suppure and renue the ulcer againe, which chanceth when the ulcer hath beene long in healing, maligne, fistulous, gangrenous and cancrenous, by the defluxion of the humor in the proper substance of the bone, as wee see in the virulence of the venerian sicknesse, or other humor malignant, the which consumeth the periost, rotteth the bone, if they continue ayre thereby, and consumeth the blood, which is the proper nouriture thereof, also application of oyle, or things unctious on the bone which corrodeth. This corruption commeth by digrees: first by comming fat, through the humor

Hip lib 6. aphor 45

Signes.

humor which is soked in it; nert, either black or rotten, and is known by the matter that cometh from it, which is viscous, thin, subtill, black, and stinking, also great store of spongious flesh, the corruption is also known by the sight, not being white as it ought, also by the sound, not equall but knottie and soft. For the curation, after remedies universall, let there be used a good dyet, purging, and bléeding, and using this potion in the morning, not eating four hours afore, nor thrée after. *Rec hordei mundi, partes 3 gentianæ partes 2 centauriæ minoris partum 1 coquantur in vino albo,* putting to a little gajac, this potion is good for the suppuration of the bones, as is learnedly written by Fogatius. The particular remedies are of thrée kinds, that is, rougins, cauters potentiall and actuall, before the application of the which wée must be assured what quantitie of the bone is altered, then incise the Ulcer, discover that which is offended, and if the rottennesse be but superficiall, wée use rougin till we perceive the blood, which sheweth it not to be altered. The bone which is néer consumed, as in the head and such places as be néer the noble parts, and joints, and in the ridg of the back, we use also the rougin.

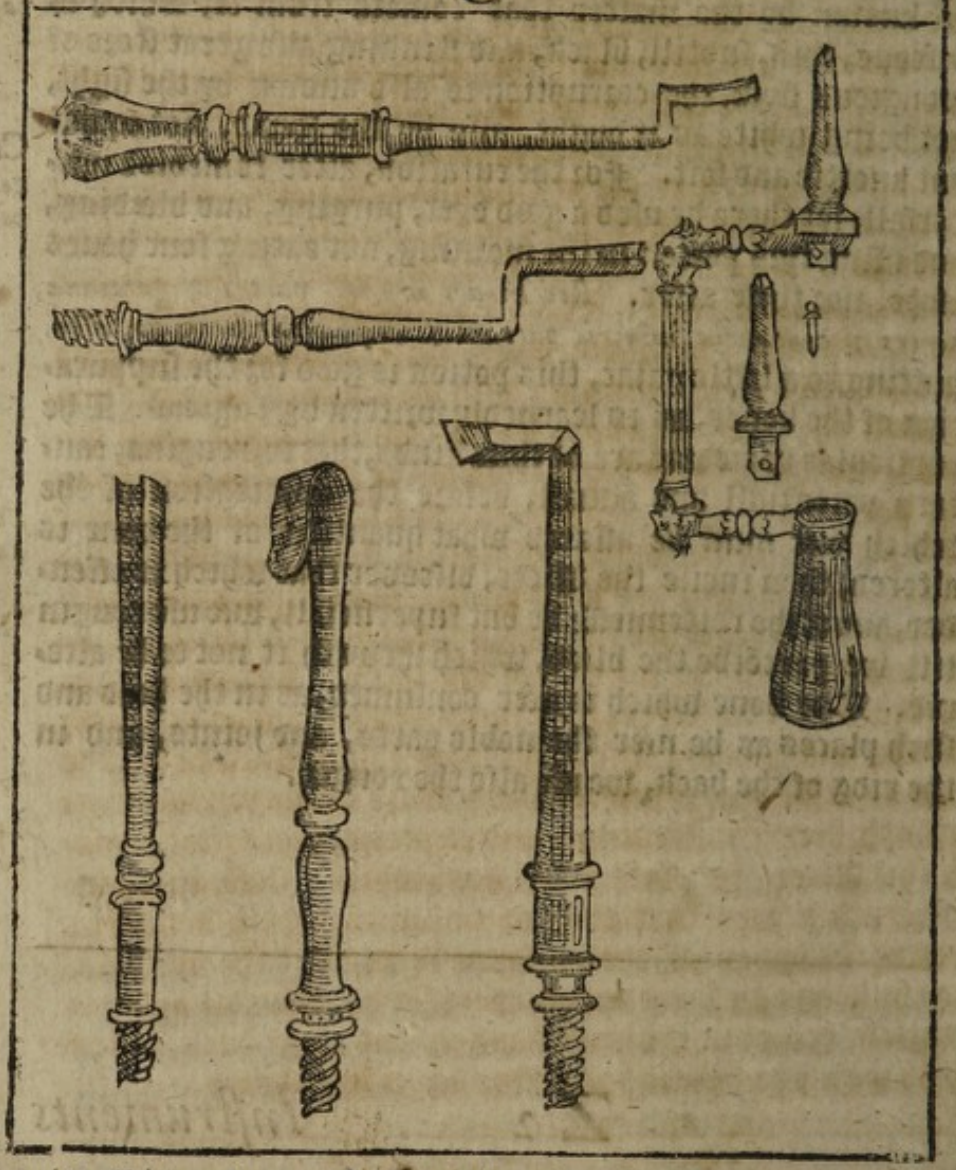
Celsus lib. 8. cap. 2.

Cure.

Celsus lib. 8. cap. 2.

Celsus lib. 8. cap. 2.

Instruments to separate and take away rotten and consumed bones.



with this powder of the roots of *aristolochia, iris florentiæ corticis pini, thuris, aloes, floris æris, an. partes æquales,* stamp them in Aquavite and dry them in an Oven, which shall be done twice or thrice, and lay these powders on the bone, with the emplaister diacalciteos or Betonica: yée may also mixe these powders with a little honey or aureum. If these things

thinges be not sufficient, and the alteration be greater, we use cauters potential, or oyle of vitreol, oyle of cloves, mercurie, camphire, sulphure, salts antimonie, incense, and such like. But if the rottennesse be great, fat, and unctious, we apply Cauters actualls once or twice, to separate the whole from that which is rotten, profunding till the outmost of ẏ altered bone, which ye shal know, when there commeth no more humiditie: if you continue them longer, you consume the humiditie naturall, which should ingender flesh betwixt the rotten and the whole bone, for the which have good Judgement. This remedie hath virtue to corroborate and comfort the part, and dryeth and consumeth the evill humors, and helpeth the separation of the bone, the which being perceived, shake it by little and little, and draw it not by force: if it be drawn before the flesh be grown on the whole bone, the ayre wil alter it. Of this remedie commeth no dolour, if yée touch nothing but the bone, after the Cauters are applyed, we use oyle of Roses, with whites of egges for the first two dayes, then mix whites of egges and fresh Butter and Honey, thereafter some mundificative till the bone be exfoliated; then use the powder above written mixed with honey to incarnate and cicatrize, thereafter consolid the Ulcer; in place of the bone which is lost, there ingendereth a hard substance or callositie, which serveth in stead of the bone. If the rottennesse come to the marrow, and the bone be all corrupted, there is no remedie but amputation, except in the head, haunch, and rigge back, in the which we use remedies pallatives as yée have heard.

Gui. tract 4. de ulcerib.

Albu. lib 2.

Chapter VIII.

Of the Ulcers Cancrous, and their Curation.

Having intreated heretofore of Cancer in general, here wée will speake of the ulcered, which as saith Guydo, is an ulcer round, horrible, having the lippes thicke, hard, inequall,

Definition.

inequall, sordid, turned over, cavernous evil savoured, of colour livid and obscure, accompanied with many vains full of Melancholick blood, voyding a matter virulent, sanious, worse then the venom of beasts, subtil, watry, black or red. It is so called for two causes, as saith Avicen, the one because it cleaveth so fast to the part, as Cancer to that which it taketh hold of, the other because it hath vaines about like the feete of the Cancer. The cause, commeth of the cancer unulcered, and ulcers evil cured, and by the humors Melancholick, which come from all the parts of the body, which doe putrifie and heat, so acquire a sharpnes and venenositie, and bred cancer. The Signes are these, the cancer ulcered is still red, cave to the profound of the member, casting a virulent matter in great abundance, pricking dolour, and irriteth by the application of remedies, and operation manuall, so not to be touched, and therefore called, *Noli me tangere*. The Cure generall consisteth in purgation and dyet, as in tumors cancrous. Guydo commendeth a potion made of capillars, *herba Robeti, scrofularia, contrayodi*, Treacle and Methridate are good, for they cause venom to come out in the skinn. The particular is, if it be in such a place that it may not be taken away with the braunches, it shall be done by incision, cauterization, or corrosion, and that the blood be all wel exprimed out of the vaines, thereafter cauterize it with such as have force to consume the evill humor, *quoniam in extremis morbis extrema sunt adhibenda remedia*. The arsnick sublimat is excellent, for it mortifieth in one day, cancers, fistules, and other strange maladies: apply defensives and anodines: produce the fall of the scale as in the Ulcer precedent. When yée perceive that there is neither stinck nor virulencie, but good flesh, heal it as other Ulcers. If it be in any part that it may not be thus handled, or the patient will not, or that it is uncurable, we use pallative remedies, the which consist chiefly in good diet, abstaining from things contrary, using nourishing things, thereafter evacuation, general purgations, bleeding, applying

Pau. lib. 3 cap. 67.

Cause.

Signes Ætius lib 4. cap. 43.

Cure. Gui. tract. 4. de ulcerib.

Gal. 2. ad gla. cap. 10.

Hipp 6 apho 1

Gal 14. meth. cap 10.

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ing on the part medicaments corroborative, lineaments & refrenants to divert the fluxion, with other proper medicines, as this: take the juice of *scabios & solani an. unc. 2. plumbi usti loti, unguenti pompholigos an unc. di. unguenti albi unc. 2. diacalciteos unc. di. oleum emphacinum parum agitentur in mortario plumbeo.* There are divers other medicaments for this effect, as *succus solani spuma argenti, cerusæ, olei an. partes equales contundantur & agitentur in mortario plumbeo, donec habeant colorem plumbi.* When there is great dolour sethe Althea in wine and honey, puting thereto a little oyle of Roses to make a cataplasm, also wash the Ulcer with wine, wherein *Tapsus Barbatus* and *Carduus benedictus* hath beene sodden. There are divers unguents and liviments set down afore in the tumors cancrous.

CHAPTER XI.

¶ Of the Ulcer Fistulous.

FIstula is an ulcer deep, straight, round, cavernous, with great hardness and callositie, from whence procedeth an humor virulent; *Paulus Ægineta*, saith it is a sinuosity callous not dolorous in divers parts of the bodie, chiefly after Apostumes not well cured and hemorrhoides which have run long, as also Apostumes hemorrhoidall. Of it there are divers sorts. The causes are, as in Ulcers cavernous but the humor which procedeth from it is worse, comming of an evil phlegmatick melancholic and adust humor, causing a bitternesse and venenositie. The signes are known by the sound, and by the humor that cometh out, which is virulent, stinking, not dolorous except it be neare the nerve. *Galen* calleth it a firing, because it is cave within; *Paulus* compareth it to the réede, that have Cavities, as also *Ætius*. The Judgements, some heale easily, some are long in healing, and some are uncurable. Fistules with many cavernes are difficile, as saith *Celsus*, those that are nere to any

Definition. *Gal. li. tumor. contra naturam.* *Paul 4. ca. 49.* *Celsus lib. 7. cap. 4.*

Cause. *Guliel de salicelo.*

Signes. *Ætius lib 6.* *Gal lib contra naturam.*

Judgements. *Celsus ibid.*

any noble part as in the thorax, also in the bladder, matrix, and intestines, are all perillous and mortall, those in the ribs back, joynts, are suspect, and of difficill curation. Fistules in the Fundament, which have the orifice interior, are hard to heal; all Fistules in bodies evill disposed, are of long curation. There are divers sorts of fistules, for some are superficiall, others doe penetrate, some overthwart, some right, some simple, others composed with one or moe sinuosities, some end in the flesh, some in the bones, and some in the cartilages. As for the cure, we must first consider by the Judgement and sound, the deepnesse and cavernosities, if it be callous, and endeth either in tendons, cartilages, or bones, or penetrateth within, all which things considered, we ordain the way of life, and purge the body according to the nature of the humor, thereafter corroborate the parts intern with this potion, which hath oft been experimented by old Authors. *Rec. hordei mundi scrofuralia an. partem unam agrimoniæ, centauriæ, plantaginis minoris an. partes duas, aristolochiæ partem di. foliorum olivæ, filopendulæ an. partes duas scindantur omnia minutim, pistentur, bulliant in vino albo cum parum sacchari.* Of this decoction ye shall take a draught every morning 4 hours afore meat. The particular remedies consist in 4 things, first to dilate the orifice, if it be straight, which shall be done by tents of gentian, briony, sponge prepared, ciclamin: if the fistule doth penetrate deep, tie a thread to the tent; the orifice being dilated, we come to the second point to take away the callosity, which is done either by incision, cauterization, or by remedies causticks and corrosives, or to cut it with shears or rasor, or with such remedies, as ye have heard in Ulcers cavernous. If it be profound & in such places where it may be knit, wee put a needle with a strong thread through it, and knit the thread every day more and more till it be consumed as ye heard in the fistula of ye fundament. If it end in the bone & it be filled, it must be discovered, and handled as ye have heard in the proper Chapter. If it end in the tendons, or membrains, it is dolourous and the mat-

Pa li 6 ca 78 Arnold de villa nova

Difference.

Cels li 5. ca 28.

Cure.

Pa li 6 cap 77 & Hip. lib de locis in homine.

ter sanious and clammie; if on the vain or arterie, yee shall perceive blood. All these things considered, if the callositie cannot be taken away by manuall operation, apply medicaments caustick, as counsell our Ancients, like as *trochises de aphrodellu* or powder of mercury, *auripigmentum* or white sope, or a tent covered with arsnick, or with strong water, or steep any of them with vinegar and distill in the wound, that is good: where there are many cavities, for that liquor goeth through all, let it remain two daies, putting about it refrigeratives & repercussives, some cauterize them with cauter actuall. Thereafter apply on it to appease the dolour, & to cause the scale to fall, oile of roses, with whites of egs, as yee shall finde in the poor mans guide, till the great heat be past, and the scale fallen, and that the fistule voideth matter commendable, which is a sign, that the cause is abolished. The 3 point cõsisteth in medicaments, mundificatives, and incarnatives, as ye have heard in Ulcer cavernous. The 4 point consisteth in sarcotices, or cicatrisants, as yee have heard before. If the fistule be incureable, penetrating to a part principall, or such other as yee have heard, as also if in curing of it, there come a more dangerous accident, as in the fundament happeneth voluntary ejection of the matter fecall or convulsion, in such wee should not seek the perfit cure, but use palliatives and purgations; of the humor pituitous, and melancholick, mundificatives to mundifie the evill flesh and matter in the wound, thereafter desiccatives, as *diachilon iriatum, desiccativum rubeum, diapalma,* and such like, which is the generall cure of fistules. As concerning the cure of fistules as in the fundament, which is done by manuall operations, you have heard in the 46. Chapter of particular Tumors.

Caustick to consume the callositie.

CHAP.

Chapter X.

¶ Of burning by fire, hot-oyle, water, and other liquors.

Because often times by Burning and violent heats, happen divers times great inflamations, Ulcers dolorous, with many evill symptoms, and oftentimes of difficil curation, for the which I will shew the way to Cure such ulcers in divers parts of our body. Such as are superficiall are subject to inflamation, such as be profound to excoriation and exulceration: the meaner sort have only little blisters on the skinne, in all which is dolour, redness, ordure, and such like, al evident and apparant to the sight: the Cure is, if the combustion be great in ordering the way of life tending to tenuitie, next in usage of universall remedies according to the humors which reigne, the topicall remedies are divers according to the diversity of the accidents. *Aristotle* counselleth in Burnings done by great heate, to hold the burnt place to the fire, by the which meanes the one heate drawetb out the other, for this purpose whites of Egs, oyle of Roses, Rose-water is good to be used: those pustules which are superficiall, accompanied with inflamation and dolour, must be cured with things that refresh, as whites of egs, water, vinegar, Houslæke, Lettice, Sorell, Plantine, Henbane, *solanum*, Roses, or the waters of those things, and apply to the place with a cloth wet therein, in like manner Allom, ceruse dissolved in Camphier water is good: these things have the vertue to pacifie the pain and inflamation, and heal small burnings: ye may also for this purpose take the blades of Leekes, or Onions peeled, well beaten with salt, or Lettice with salt and apply to the burnt part, which hath a marvellous vertue in healing: the roots of Lillies, fried in oile of Roses, or the leaves sodden are also good: for this purpose some doe use to apply the inner part of a rotten Apple in form of a cataplasm which is also good, if

Cure of Burning by fire.

Topicall remedies.

Superficiall Burning.

Medicaments for burning.

if the blisters be very great open them, if there be ulceration use remedies lenitives and desiccatives made of 3. ounces of nutts, ware one ounce and a halfe, mix them together and wash them in Plantine water, and lay on it also: sodden Leekes in wine, or the juice of them with *unguent rosat.* is good: if the sore need mundifying take turpentine well washed in decoction of barley, a little sirope of Roses, with Aloes, and barley-meale, the sore being mundified cicatrize it with *unguent pupuleon, diapompholigos album, rasis de mineo* or *diacalcitheos*, mixed in red wine or disolved, wet a cloth therein and lay upon the sore. The foresaid remedies must be softly applyed and seldome handled, oft handling doth irritate and cause fluxion, for the which I have set down a remedie in ♄ Chapter of burning by Gunpowder, which doth cure al kinds of burning in short time with one plaister only. This remedie following is very easie to be had, and doth heal without any mark, which is thus: Take the bark of the Elme tree, steep it one night in water and take it out the next morning, then you shall perceive a glutinous matter on the inner side of it, which you shall take off, and annoynt the sore therewith, with a Goose quill, this healeth perfectly in short space; and so I end this Book of Ulcers.

For ulceration.

Mundificative for burning.

(***)

THE

The eighth Book:

Of Bones, and certaine Diseases incident to them.

Which containeth V Chapters, whose Contents bee these; By PETER LOVVE *Scottish man.*

Chap. 1. Of the number of bones in Mans body.
2. Of Fractions in generall.
3. Of the Curation of Fractures.
4. Of dislocation in generall.
5. Of the embalming of a dead corpse.

CHAPTER I.

¶ Of the number of bones in Mans body.

Interloquutors. *Peter* and *John.*

P. HAving heretofore briefly set down such sort of Maladies which happen commonly in the soft parts; so now we will follow out to intreat of those which happen in the hard and solid parts, as the bones; but for the better instruction of thee and all young Chyrurgions, before I enter in Fractures, it shall be expedient to speak somwhat briefly of the number of the bones in Mans bodie: Then, what are the number of them reckoned by the most part of Anatomists?

Joh. In that there is diversitie of opinions; som of them reckoning 246 in number, as are comprehended under these verses, by the learned Medeciner *Gualterus Riff.*

Addes quater denis bis centum senaq; habebis,
Quem sois multiplici conditus osse semel:

Portraiture

Portraiture of the bones.

other

other late Anatomists have observed and found in their dissection 258 bones, besides these little ones, that are in the fingers and toes, called *Sesmoidæ*, whose number are uncertain.

258 Bones in Mans body.

Pet. After what form are those bones divided?

Joh. In dividing of them I shall begin at the head, as the most noble and principall part of the whole body, and is composed of 66 bones, viz. 14 in the *cranium* which is thus divided: the first is called *coronali* or *os frontis*: the 2 is called *occiput* and is most thick, and solide, how be it in young ones it may be divided in many parts: the third is called *Spenoid* or *Basilar*, which is the fundation of the rest, the 4 is called *ethmoid* scituate above the nose, under the frontall, it is spongious: the 5 and 6 are the two bregmas, dexter and sinister, called *parietaria* they are of figure *triangular*, and very weak. The seventh and eight are the two called *petrosa*, or *lapidosa*, which be near unto the eares, six in the eares, whereof there is three in each one, called *Incus stapes* and *maleus*. In the face are 52 thus divided, the upper chaft or jaw, is composed of 18 bones, whereof the first two are called *zigoma*, and *ingulæ* in Latine, or *os paris*, 6 in the eies, to wit, three in each orbit beside the great cavitie of the eye, in the which the most part of the teeth are implanted, 2 in the cannell of the nose, which are hollow and spongious, through the which the excrements of the brains doe descend, 2 of the nose, one in each side, 2 of the roof or upper part of the mouth called *sphenoides* or *os cunei* and *basilare*, and one at the root of the tongue called *Hyoides*, which by *Andreas de Lorin* and other curious Anatomists, is divided in six bones, it maketh the tongue to be more sure and firm: With two little ones in the upper jawes *ethmoides*, called *colatoria*, which is spongious and compleats the number of 18. The nether jaw or chaft which is in young Children, is divided in two, with the number of thirty two teeth, which are thus divided, the first eight which be before are called *Incisores* which is to cut that which we eate, the next four are sharp pointed

66 Bones in the head.

6 In the eares.

6 In the eyes.

pointed ordained to break our meate, and are called *canini*, they be neare the nerves that passe by the eyes, and in pulling out of them doe oftentimes indanger the eye, for the which they are called by the vulgar people the eye teeth, they doe grieve young ones in their breeding, then followeth two which are most great and broad, ordained to bruise & grind that meat which wee have taken, for the which they are called molares and doth compleat the 66 bones of the head.

Eye-teeth doe grieve young Children.

Pet. Seeing you have verie particularly described the bones of the head, I would in like manner that you should describe unto me the number of the bones in the thorax?

Joh. The part which by the Anatomists is called thorax or corslet contained from the first verteber of the neck unto *os Coxæ*, and is composed of 66. bones, and are thus divided in the 7 vertebres of the neck, 12 in the back, 5 in the lungs, 6 in the *os sacrum*, 4 in the *os Coxæ* which maketh 34. with 24 ribbes, divided in 14 true ribbes, called *costæ veræ*, which are tyed in the sternon or breast bone, and ten called *Nothæ*, which are lowest and tyed to no part. The stern or breast bone, which is composed of three, and by some curious Anatomists, of seaven bones in young ones, it is cartilaginous more soft and spungious than the rest, in such sort that if any ulcer do happen in it, it endureth a whole age as saith Hippocrates, and 1. in the heart which is *cartilaginous*, 2. *clavicula*, and 2. of the shoulder or spalds, called *omoplatæ*.

66 Bones in the thorax.

Pet. Seeing you have described those bones, wherein the three noble parts are contained, in like manner I would crave of you the number of the bones of the extremities, which uphold and defend the rest of the body, and first to describe how many bones the armes and hands are composed of?

Joh. They are composed of 60 bones, besides the *sesmoidæ*, which are thirty in each arme and thus divided, first the great bone in the arme called *brachium*. 2 under the arme the one called *cubitus*, and the other *radius*, the hands which are the instrument of Instruments, as saith Aristotle, apt to take,

take, receive, and hold, is composed of 27 bones in each hand, viz. the Carpe called *Brachiale* his 8 hard bones, and are joined to the arme: the *Metacarpe* called *postbrachiale*, of 4 bones, and are joined to the fingers, with five fingers, whereof each one hath three bones, which maketh in number 50.

3 In each finger.

Pet. In how many bones is that part which upholdeth the body composed of?

66 Bones in the leggs.

Joh. The Leggs which are Instruments motives, are composed of 66 bones, which maketh 33 in each one, and are thus divided, the heinch bone which is composed of three, the one called *Ilion*, the other *Ischion*, & the thread Pubis, and the great bone in the thigh called *Femur*, with that of the knee called *Rotula*; 2 in the leg, the bigg one called *Tibia*, or great focil, the lesser called *Fibula* or little focil, with the feet which are composed of 52 bones, besides the *Sesmoida* which is 26 in each foot, thus divided; the upper part of the foot called the *tarsus* is conjoined to the legg, it is hard and solide but without spongious, and is composed of seven bones, of the which three are namelesse, but are called by some Anatomists *Calcoides*: the other four have names, whereof the one is called *Calcaneum*: the second *Astragalus*: the third *Naviculare*: and the fourth *Cyboide*: the *metatarsus* is composed of 5 bones, which be hard without, and cave within, full of marrow with 14 in the toes: to wit, three in each one of four, & two in the little toe. There is found in the joints of fingers and toes, certain little hard bones, called *Sesmoida*, yet not reckoned by many of the Anatomists by reason of the uncertaintie of their number, which is sometime ten, twelve, fifteen, eighteen, the most part which I did observe ever either in reading of any number of Anotamists, that have written, as also in divers sections, which I have seen, was 15 their use is to fortifie the joints of the fingers and toes, and to preserve them from going out of their own place.

52 Bones in the feet.

CHAP-

CHAPTER II.

¶ Of Fractures in generall.

Pet. LIke as in every generall Chapter of the former Book, I have demanded of you somewhat generally of that matter whereof I was to entreat of; the which method I am now mindfull to prosecute, and because that all bones which are offended are either vitiated, removed out of their own place, bruised, or broken; for the which I will first demand of you what is a Fracture?

Joh. It is a generall division, decision, or solution of continuitie of the bone, called in Greek *Catagma*, of the which there be seven differences, and according to their effects have divers denominations, as for example, when the bones are broken in the middest overthwart, it is called by the Greeks *Agma*, and by the Latines *Ruptura transversalis*, or *virgalis*. The second kind is done according to the length of the bone, yet not separating altogether one part from another, but only rent: such kinde of Fracture is called by the Greeks *Chidasedum*, and by the Latines *Fractura linealis*. The third kinde hath the name according to the form, or by the similitude of certain fruits, peeces of wood, stalks of Colwort broken: such kinde of Fracture is called by the Greeks, *Canledum*, which is when the bone is not soundly broken, but lifteth in divers peeces, called by the Latines *Astales*. The fourth kinde is called by the Greeks *Raphanidum*, which is when the bone is smoothly broken like a raphard, and is called by the Latines *Fractura raphanatis*, or *Arundinalis*. The fift kinde is when the bone is broken in divers peeces, bruised, and crushed like a Pet, called by the Latines *Quassatio* and by the Greeks *Apagma*: such kind of Fracture happeneth often in Wounds done by Gun-shot. Like as the first kinde called by the Latines *Rimularis*, and by the Greeks *Alphitidon*, or *Carpedone*, which is, when the bone is subtilly broken, and of all kind of fractures those

Com in apho. 23 lib 1. de articulis, & com. 1. lib. 1. de fracturis. Pa. li 6 cap. 89. com. in apho 9. lib. 2. de fra. & cap. 6 de const. artis, & cap. 10. de morb causis.

be most dangerous, and often deadly, chiefly in the joints and neere thereunto. The seaventh kinde is, when a little part of the bone is superficially separated like unto a little spelch or sclat, called by the Greeks *Apotrasis* or *Acopape*, the Arabians doe call it *Alcasin*, and the Latines *Refractio* or *Precisio*. There be divers other differences of fractures mentioned by the Greeks, yet little spoken of by Hippocrates or Galen; and by reason I finde them of small importance, I will for this present omit them, although some of the learned hath made some mention.

Paulus lib. 6. cap. 89. Gal lib 6 meth cap 5. Celsus lib 8 cap 7,8,9,10.

Pet. Is there no other difference mentioned by our Ancients?

Joh. I finde that Galen hath somewhat spoken of two differences of fractures, the one made overthwart, the other along the bone like a peece of cloven wood. And Celsus speaketh of a third kinde which is oblique; in the which fracture the points of the bone enter into the flesh, and doth procure great dolour.

Pet. Are all Fractures simples, or composed?

Paul ibid.

Joh. Some are simple, other composed with wounds, inflammation, gangren, ulcers, dolours, and such like.

Pet. Differ they not after any other manner?

Joh. They doe differ according to the part where the fracture is, as in the head, nose, back, leggs, armes, fingers, and such like.

Pet. Which be the causes of Fractures?

Haly Abbas. serm. 8. Gal. lib. 2. de fract. et com. 9. apho. Celsus lib. 8. cap 10. Avic. tract. 2. cap 1. Galen 6. meth. et com. in apho. 6. lib 2. cap. 5.

Joh. Haly Abbas and Galen doe say, that all outward things that have force to bruise, breake, cut, or cleave, are sufficient to cause fracture.

Pet. Which be the signes of Fractures?

Joh. Avicen, Rasis, and Celsus doe say, that by the sight and feeling of the part with the hand, thou shalt easily perceive inequalitie: as also feele a noyse or bruite in the handling of it with dolour on the part.

Pet. Which are the judgements of Fractures?

Joh. All fractures in hard and dry bones, as in old people, are

are more difficile and are longer in healing, than such as are soft and humid, as in yong people. Avicen saith, that fractures in chollericke and old people are very difficile, and in very old people be very unpossible: all fractures in the ribs joyned with inflammation and spitting of blood, are most dangerous.

Com. in apho. 42. lib. 1. de fracturis. Paul lib. 6 cap. 110. Hip. lib de fracturis. Gal lib 6. meth cap 5. & apho 68 li 2. de fracturis. Roland. lib. 3.

Pet. Which be the fractures that are easiest to be cured, and which are most difficile and dangerous?

Joh. All fractures in the ribs which are simple, also such as be in the middest of the armes, legges, and fingers, and made overthwart, are not dangerous; but to the contrary, all fractures neere the joynts & in the heads of the bones are difficile, and the motion afterwards not good, and those which presse inward are worse than those which goe out. Al fractures in the head how little so ever they be, are dangerous: all fractures where they are many broken peeces, are dangerous: those with wound are difficile, because the bandage cannot be done without dolour of the wound. Celsus saith, that fractures in the thigh are evill, because the member remaineth often shorter: all those that are eminent and have much marrow, are dangerous.

Celsus lib. 8. cap 10. Cel. li. 8. c. 10. Hip. de fractu. cap. Hip. ibid.

Pet. Are all fractures healed in a certaine space?

Joh. Some are longer in healing, some shorter, according to the greatnes, hardnes, and dryness: fractures in the head are healed in 15 dayes, in the thigh in 45 dayes, in the legges and armes in 40 dayes, the nose in 16 dayes, the ribbes in 20 dayes, in the jawes, the shoulder, clavicules, hands, feet, are healed in 20 dayes, in the hanch and point of the shoulder in 40 dayes, and likewise in other places, according to the nature of the bone, the age, the ayre and time of the yeare, and constitution of the body, the diet, medicaments and government of the sick, which things duly done doe shorten the time of the cure. The defect of the aliment viscous is helped by fomenting with hot water, the oft handling and shifting it doth prolong the time, as also straight ligatours, so indeed there is no time lymited, but

Hip. cap 6 & 8 & li. 2 de frac. Aphorif 65 Cel. li. 8 cap 7. Avic tract 2. cap 9 Paul 6 c. 1 89

com. apho. 42. & li, 1. de frac. some are longer, some shorter time in healing, as we see by daily experience.

CHAPTER III

¶ Of curation of Fractures in generall.

Albu. li 3. IN the precedent Chapter ye have heard what fracture is, with the causes, signes, and Judgements; now remaineth the cure, for the which ye must consider, first if there be inflammation, to deferre the reduction till it be past, for to avoyd great accidents, then we must have a quantitie of whites of Egges, and oyle of Roses, beaten together with Compresses, bands, ferules, machins, lacs, oxicrate, and men to helpe you, with other things necessary for the purpose: having all these in readinesse, there remaineth yet five points, the first is in extention of the member, which is done by laying it on a bence or other place proper, the sicke being wel scituated, there must be two persons to hold the member fractured, the one at ÿ nether part, the other at ÿ upper part, of the which one draweth up, another down to make the extension; if the hands be not sufficient to doe this, we take cords, or strong cloth and binde fast the member one to the upper part, another to the nether, which shall be drawne by two men contrary, as ye have heard. For the same purpose you may use glossocomes, if great force be needfull, beware of extention, chiefly in dry bones, for feare of dolour, feber, and convulsion. The second intention, after the extention is made, thou shalt take the member softly with thy hands, and reduce the bones in scituation naturall, then loose the machins that the muscles may goe to their own naturall. The third intention is to binde it wel, and to hold it in the same estate unmoving, which is done be medicaments and bandage, we apply for the first time an emplaster astringent or defensive made of Bol, fry flower, whites of Egges, and oyle of Roses, it shall be best to rub the member with cerat

Gal 6 me. ca. 5. Theod. lib. 2

Soranus.

Bru li. 1. c. 18.

Gal. cap. 12. constat artis.

Hip. lib 1. de f. actu. com aphor. 12. & lib. 1. de artic. & 6 met c 52 Celf li 8 ca 10.

Hip aphor 21 & li 1. de f ac Aph 26 & l. 2. de officina medic. et li. 1 de fracturis.

Galen

Galen, oyle of Roses, Myrtill, or mastick, before the application of the astringent, ꝑ cloth must be wet in oxicrate and the bands also. Thereafter binde the member, of the which our ancients used only two kinds, to wit, the under band which Hippocrates calleth *Hypodesmedy*, and the upper band which he calleth *Hypodemos*. The nether band is divided into 2 or 3 the first is short beginning right on the fracture wearing upward towards the knee; if the fracture be in the legge, the volutions must be close together, this kinde of bandage letteth the fluxion on the member hurt. The second band which must be longer, shall begin in the same fashion, making two or three circumvolutions on the fracture, conducing downwards, this bandage maketh expression of the blood which was fallen on the fracture, let the volutions be further asunder, being low yée shall weare up againe, and end at the other joint. The third band shall begin at the nether joint, and passe upwards on the fracture to the other joint, and there end with the rest: the band must be of clean cloth, thinne, soft, without seame or hemme, of length according to the member, and the breadth of three or foure fingers, reasonable strong, that they be neither too straight nor too slack bound, the straight maketh dolour and inflamation, and letteth the vital spirit, likewise the too loose binding, holdeth ꝑ bones together, so there must be mediocritie in that matter. The band being governed in such fashion, you must consider that the legs, thighs, and armes are smaller in the nether parts than the higher, therefore wee must put double clothes to the proportion of the member, to make the small parts equall with the rest, and also that our splents that are made of Cards, Wood, or white Iron, be holden faster by the upper band. There must be three splents made hollow, the first which is biggest shall embrace all the under part of the fracture as fundament, the other two shall be put on both sides a little space one from another: these three splents being placed on the under band doe hold them fast, and also keepeth the bone steady

Aph 12 & 27. lib 3 de officina medici.

Com apho 13. & li. 1 de frac. Celf. li 8 ca 10.

Gal. 5. de offi. medic. & Celf. lib. citato.

Hip. aphor. 19. & 26 li. 2. de officina medic. & com aph 21 & li 1. fractu. & com 36. li. de fracturis.

Aph. 41. li. 1. de fracturis.

Hip lib 1. de fracturis.

steady from moving, they must not be put to afore the seaventh day, also they must be narrow at the lower end according to the member, broad and strong on the place fractured, with a little Cotton or Wooll. Our ordinary practise is to use them the first day, if there be no inflamation; and being done, we apply the two upper bands on them, called *Epidesmos*, the first shall begin in the inner side of the nether joynt, and turne upward to the upper part of the member. The second shall begin in the upper-most part, in the outside, turning inwards, so the one shall goe contrary to the other in forme of ✠. Andrews Crosse, as saith Celsus. The member bound in this fashion and scituated according to the scituation of the vains, arteries, nerves, and muscles, as saith Galen; the nert we must take a Napkin and sowe a little straw in every end of it, sowe it together and lay the member in the middle of it: some for this purpose doe use a little box of six pense the length of ꝑ member bind it with little cords or ribban, scituate it right, soft, and high, so continue it three dayes, if no accidents happen, reneue it again in three dayes, but if the fracture be simple, we remove it not before the seaventh day, or longer. The seaventh day past, renue it every 7 day, or 12 or 20 day if other accidents doe not happen, as saith Hippocrates, use defensives in the superiour parts, at least in the beginning, also foment it with warme water, for that revoketh the blood, comforteth the part, and humecteth it with a pleasant humiditie. The fourth precept is in generation of callositie first they shall eat meat of good suck, to ingender good blood, yet somewhat straight, till the 10 day be past abstaine from strong drink, for in that time the inflamation and fever doe passe, eat Veale, Mutton, and Kidde, use medicaments emplastriches that heat moderately, also an emplaster or cataplasme of whites of Egges, fine flower, and Roses, till the 10 or 15 day be past; in all the time of the cure after the 10 day be past, the nourishment must be enlarged, because the generation of flesh cannot be done but by things of good

Apho 1. & 2. & l. 3. de officina medici

Celsus lib. 8. cap. 10. & Hip. lib 1 de fracturis.

Lib 6. meth. cap. 5.

Apho 39. & li 1. de fracturis. & apho 4. ibidem.

Hip. apho. 45. & 46 & li. 1. de fracturis.

Pa lib. 9. ca 89

good nourishment, but the Caule which is named by the Latines *Callus*, and by the Greeks *Poros sarcoides*, by the Arabians *Areshon*, may be made by it self without any help, chiefly in humid and viscous persons, as in young people and children; but those of elder age which are of a more hard and dre constitution, the union or Caule of the bone cannot be made but by the help of some glutinous substance, which doth gripe the broken bone in such sort, that being dried, hardly can it be separated in those, this Caule is ingendered of the part most viscous and grosse of the nourishment of the bone: like as every part doth draw the own proper nourishment, even so the bone doth draw the part most viscous of the aliment, for the which the nourishment ought to be such as hath the vertue to engender the Caule chiefly in old people; thou maist know when the caule is making, if in tying the first band it seem bloody & not wounded, it sheweth the caule to be making, then to fortifie the same we use every three daies to wash the member with decoction of Roses, and mosse of the Oake tree, putting thereto a little *Oxicrosium* or *de althea*; if in this time it itch, as often happeneth, foment it with water and salt, and use fomentation of hot water, and emplasters of pitch to revoke and draw the aliment to breed the Caule. If the Caule be too great, we bind a cake of Lead on it or some medicament that digesteth, as counselleth Galen; all emplastick substance healeth moderately. The first precept in correction of the accidents, for sometime there is wound with the fracture, and then it must be banded more slack, using more bands and no splents, also more straight diet. If either Phlegmon, Contusion, or Gangren, cure them as yee have heard in their proper Chapters. If they be not proportionably, it must be amended by breaking of it, which must be done afore it be hard, otherwise it breaketh in some other part: to doe the same it must be fomented the space of 15 dates with Henns, Goose, or Cocks grease, fomentations and cataplasms that have force to soften the Caule, as this; take unguent

Lib 6. meth. cap 5.

Celsus lib. 8. cap. 10.

unguent *de althea* and *agrippa*, of each *unc. se. olei Camomelini*, Lilies and Laurell, *axungiæ gallinæ, anseris* and fresh butter, of every one onc. 1 with a little Wax, so being softened it separateth easily, sometime it requireth a little force to doe it. Avicen and Guydo write in divers manners to doe this, which I counsell no man to try, for better it is to suffer a little deformitie of a part, than losse of the whole body, to wit, death, which often happeneth. As for the curation of Fractures in the head, look *Hippoc. de vulneribus capitis, & Galen 6. meth. cap. 6. & Celsus lib. 8. cap. 3. & 4. & Paulus libro sexto, cap. 90.*

Avicen. Guydo Brunus Alb.

Chapter IIII.

¶ Of Dislocations in generall.

Pet. Like as we have done in Fractures, so wee will follow out in Dislocations: but for the better understanding thereof, I would know of you after how many fashions the bones are joined together, before wee come to the definition of the disease?

Joh. All bones are joined generally two waies, to wit, by *Arthron*, that is, by Articulation, and by *Symphisin*, that is, by naturall Union.

Pet. How many sorts are there of Articulation?

Joh. There are two, to wit, *Diarthrosis*, that is, conjunction with movement manifest to the sight, as the legs, armes, feet and hands: *Synarthrosis*, is moving more obscure to be perceived, as the teeth, the sutors of the head.

Pet. How many sorts are there of manifest movings?

Joh. Three, to wit, *Enarthrosis*, that is, when there is a great cavitie that receiveth a long roundness, as the thigh with the haunch: The second is *Arthrodia*, that is, when a superficiall cavitie receiveth a little superficiall head of a bone, as the arme and shoulder with the omeplat: The third is *Ginglimus*, that is, when the bones receive one another,

other, as in the connexion of the knee, and the cubitus with the arme.

Pet. How many sorts are there of obscure movings?

Joh. Galen saith, that there are three, to wit, *Sutura*, as the sutures of the head: the second is called *Gomphosis*, that is, when the bone is infixed in like a nayl, as the teeth in the jaw-bone: the 3 is called *Harmonia*, as the nose with the head, the bones of the face which are joyned together like a-live. *Lib. de Offib.*

Pet. You have spoke sufficiently of Articulation, now tell me of naturall Union, and how manny wayes it is done?

Joh. Two waies, either without mediation, but by succession of time groweth together, as the nether jaw-bone, which manifestly is distinguished in children, or else by mediation, and is done three wayes, to wit, the Cartilage, as the bone *pubis*; secondly by the nerve or tendon, as the Sternon, and as *Illium* are joyned together; thirdly, by flesh, as the teeth are fastened. *Theod lib. 2.*

Pet. What is dislocation?

Joh. It is an outgoing of the bone out of the naturall seat, which letteth the moving. *Paul. li. 6. cap 3 Bru. li. 1. c. 20.*

Pet. How many differences are there of dislocation?

Joh. Three, of the which the first is called Complete, when the bone is altogether out of the place: the second is Incomplete, when the bone is not altogether, but a little out: the third is Distortion, Elongation or Pervertion of the ligament.

Pet. How many waies is Dislocation complete done?

Joh. Foure waies, before, behinde, or outward, and inward, some up, some down, but not oft seen. *Cel. lib. 8. 15. et cap 11. Gal. com. aphor. 5 lib 3 de fra. et aph 1. li 4. de articulis.*

Pet. How many differences hath Incomplete?

Joh. It hath three, the first, that the ligament in the joynt and about it is relaxed as chanceth in the haunch, the second when the ligament is forced by great violence, as the leg or foote in making a wrong or crooked step: the third is, when by little and little the ligament relaxeth and bringeth the

the bone after it, as chanceth in the back.

Pet. How many differences hath the third, which is called Distortion?

Joh. No difference, but only the bone is made longer from the other.

Cause. *Pet.* What are causes of luxation?

Joh. Two; to wit, Extern and Intern.

Pe. Which are the Extern?

Gal. de causis morbor. cap. 2. & artis parvæ ca. 58 com. apho. 26 & lib 1. de articulis. Cel. li 8 ca 11. com. apho. 1 lib. 11. de officin medic & com. 55. lib. 3 de fracturis.

Joh. Falls or stroaks, and too violent extending of the member violently against the figure naturall.

Pet. Which are the Intern?

Joh. Great abundance of humor pituitous, gathered in the jointure, which humecteth the ligaments, and maketh them soft and humide, so the bone goeth out, or by the extenuation of the muscles about the jointure.

Pet. How know you Dislocation?

Joh. By the extraordinary tumor of the place, by the emptinesse of the place where the bone was, by the privation of the moving, accompanied with dolour.

Pet. By what judgement or signe know you those that are easie, and those that are difficile, and those which are incurable and mortall?

Judgements. *Joh.* I judge by the kind and diversitie of the Dislocation and body, as for example, the knee is easie to goe forth and to goe in, also the finger, in like manner members lean, and where the nerves and ligaments have store of humiditie and moisture, the arme difficile to goe forth, and hard to put in again: and in grosse, fatt, and tender people, those with fracture and apostume are evill to heal; those are very difficile that have the sides broken; those which have bèen long out, are almost impossible to be reduced, the two uppermost vertebres of the neck being out, letteth the respiration, and so the partie dieth within the space of three daies.

Paul. lib. 6 cap. 3. Celsus lib 8. cap. 21.

Cure. *Pet.* What method use you for the cure hereof?

Joh. The method generall for all Dislocations hath 4 Intentions: the first is, to put the bone in his own proper place

place, the extention of the member first made, with hands of Machins: the second intention is, to continue it in the place by good medicaments and bandages, as in Fractures: the third is, to put the member in right situation: the fourth, to give order to the accidents, as by good dyet, purging, and bleeding if need be, and reduce the Dislocation before the inflamation be come, otherwise stay till it be past: when it is neere whole, or the accidents past, wee shall use things to corroborate and comfort the part with certaine simples sodde in wine, next, the emplaster *Oxicrosium*, or *ad Fracturas*.

Celsus lib 8. cap 11. Hippo apho 4. lib. 4 de artic.

Pet. If the Dislocation chance with Fracture, what is to be done?

Alb lib.3 c. 1. Paulus lib. 6. cap. 12,13,14.

Joh. First, reduce the Dislocation, next, the Fracture if it be possible, some reduce, the Fracture, next the Dislocation, it being reduced and the Dislocation simple, foment with oyle of Roses, whites of Eggs, and cloth wet in Oxicrate, with splints, putting it in good figure, with as little pain as may be. It must not be stirred till the 7. day, except inflamation, or some evill accident doe fall, at which time foment it with hot water, thereafter the astringent as in Fractures, keep good dyet, eat little for 4 or 6 dayes, till the inflamation be past. If the luxation be joyned with a wound, first have care of the wound with lenitive medicines, next, give order to the Dislocation: but if the Dislocation and fracture do both possesse one part and at one time, first the Dislocation must be reduced, next the fracture, as is more at large set down by Guido and Tangat. If the Dislocation happen by causes externe, as by abundance of humors which loseth the ligaments, wee must use astringent and drying medicines. If it be accompanyed with dolour and inflamation, it must be cured as I have said before. If there be fever, use good dyet, purgations, and bleeding, in the end of the cure we corroborate the part with decoction of Roses, and Wormwood in wine, thereafter the emplaister *Oxicrosium*, or *ad fracturas ossium*, till the end of the cure.

Guy. 2. doct. cap 1. Hip. apho 65. lib 4 de artic. Hip. lib citato. Cel. li. 8 com in apho 23 lib 1. de artic. cap 6. & lib 2 meth. Pa. li 6 ca. 22.

Guydo. Tangatius.

Gal. lib. 8.

CHAP-

CHAPTER V.

¶ Of Embalming the dead Corps.

HAving in all this Worke endeavoured my selfe by all possible meanes, to cure & preserve the health of man even from his birth: so now it behoveth to shew the forme and methode how to preserve the diseased or dead body even to the grave, in such sort that the yong Chyrurgion may be the better experienced in all things which concerne the humane body, as well dead, as living: and that according to that ancient use and custome which ever hath bœne used by the godly in all ages, as evidently appeareth by the Scriptures, as also by prophane Histories, which make mention that there was never a Nation so barbarous, not the very Scythians but have ever had such care of the buriall and embalming of their Parents and frinds, which was marvailous. The which forme hath ever continued to this day, as well by Christians as Infidels, whereof divers examples may be alledged as well in the new as in the old Testament. I read in the 19 of Iohn how Nicodemus brought Myrrhe and Alloes mixed together, about the waight of 100 pound, and annoynted the body of our blessed Saviour Jesus Christ, then wrapped him in Linnen cloaths, thereafter buryed him as was the order of the Jewes to bury their dead. Also I read in the 50 Chap. of the 1 Book of Moyses called Genesis, how Joseph commanded his servants who were Chyrurgians to embalme his Father for the space of fort e dayes, till he was carryed from the land of Egypt to the land of Canaan, where he was buryed in a double cave which Abraham had bought for a buriall place. Heroditus reporteth, that the custome of the Jewes was most commonly to embalme them for keeping 40 or 60 dayes. Also in the last Chap. of Genesis, that Joseph himself was embalmed, put in a chest and carryed to Egypt. As touching other Histories, divers Authors might be here alledged,

How to preserve the dead Corps.

Scithians.

Joh. 19. 39.

Christ embalmed.

Gen. 50. 2. *Jacob* embalmed.

Herodotus.

Gen 51. *Joseph* embalmed.

ledged, but for the present we shall content us with a few. Cyrus King of Persia, commanded that his body should bee well bowelled, but that no Sepulchre be made for him but the earth which produceth grasse and flowers; nevertheless Diodorus maketh mention of the costly erection of the tombs builded by Semiramis Queen of most excellent memorie, who builded Babylon, subdued Æthiopia, and made warre in India, wherein was engraved these words;

Cyrus King of *Persia* embalmed.

Diodorus.

What King shall ever have neede
of mony, wealth, or treasure,
Let him pluck up this Tombe with speed,
and take thereof at pleasure.

Darius.

Darius King of Persia reading those words, caused the said Sepulchre to be opened, wherein he found these other Verses engraven;

Unlesse thou haddest been a King,
Covetous of money, insatiable, and desirous,
Thou would'st never have undone, broken, and violate,
The graves of them that were extinct by fate.

Sertorius.

Antonius Sabellicos doth write, that Sertorius passing through Barbarie found a Sepulchre in a Cittie called Tigena, which was fourtie cubits of length, wherin was richly embalmed the body of Anthius, who was a man of marvailous strength, with whom Hercules did wrastle, hee was before the incarnation of Christ 1588 The said Sertorius commanded that the said Sepulchre should be more richly reedified than it was before, albeit he should have dishonoured himselfe by violating so notable a monument, as Plutarch reporteth. There be divers other learned men, who have written sundry Testimonies of the richly embalming of the Jewes, which are not necessary to be spoken of for the present; here I only intend to shew the young Chyrurgion briefly the forme of embalming in our time, which must be done after this manner. First, the dead corps must be layd on a Table upon a clean linnen cloth on the backe, then make your incision from ỳ Clavicul unto the *os pubis*, then

Anthius embalmed.

Plutarch.

Form of embalming.

then lift up the sternon with the muscles of the inferiour belly, taking forth all that is therein contained: as also the brains after the skull be opened by the sawe, all those must be presently buried, except only the heart, which may be embalmed with the body or alone, and put in a box of Lead or otherwise, as shall be thought expedient by their friends; which done, wash the body with Aquavite and Wine, then make deep and long scarrifications on the armes, back, lungs, leggs, thighs, and buttocks, chiefly in those parts where the great vains and arteries be, to the end the blood may avoid the better, which otherwise might engender corruption, which done wash the three venters and incised parts with Aquavite, spirit of wine, and strong vinegar, wherein hath been sodden Abscinth, Allom, Colocinth, Aloe, and Salt, then dry all those parts diligently with a water spunge, or otherwise: then you shall have those powders in a readinesse, which commonly are made of Roses, Cammomill, Cumin, Melilot, Mint, Wormwood, Balm, Sage, Lavender, Rosemarie, Laurell, Marjoram, Time, Cyprus, of each a certain quantitie, all dried and put in powder, Gentian, Iris of Florence, Calamus, Aromatick, Nutmegs, Cloves, Cinamon, Pepper, Benjamin, Aloes, and Myrrhe, of each a small quantity, beat all in grosse powder, and fill up the belly and skull therewith; as also whole incisions and sow them up close again with a needle and thread, thereafter annoint the whole corps with Turpentine mixed with oils of Cammomill, or some Aromaticall oiles that be extracted by quintessence, then cover over the whole body with the foresaid powders, thereafter wrapp it in a Searecloth, which shall be thus made, take 4 pound of Mar, Rosat 2 pound, sheeps grease 1 pound, *Resinæ pini 1 lib. dimid. olei Petri*, or Spice, so much as shall be requisite, mixing therewith some Colophon, Mastick, Storax, and Gumm Arabick: The cloth must be wet in that composition, and refreshed a little, then involve the corps in it, which done, tie it fast with small cords in all parts, then cover

Embalme the heart.

Aromaticall powder.

Ointment of the bodie.

cover it with a linnen cloth, or for persons of higher dignity take layre or camerige. In all the time of this worke we use to burne in the chamber Benjamin, or other odoriferous things, others to make a pleasant favour, use a candle of Benjamin, Muske, Storax, Ladan, Charcole, Cloves skin of the Pomgranet, red of Roses, of ech a little quantity, put all in fine powder and mix with Gumme of Dragagant, whereof you shall make your candle, drie them slowly, which you shall burne in the chamber during all the time of your operation. Som common people for bowelling use a few of the most common of those herbs with unquenched Lyme, the ashes of the stalkes of Beames, and of the Oke tree, wash the body with vinegar and stuffe up with those powders, then involve the corps in a common Searecloath, tie it with small cords as the former, put it in a close chest of Lead or Timber. This is the form to preserve either the dead corps above or beneath the earth: but if any would have them to continue embalmed, for to endure 100 or 120 yeers, you shall finde a perfect way to doe the same in my Book called The poor Mans Guide.

What should be burned in the chamber

Embalming of common people.

(**)

THE

The ninth Book:

Of Blooding: And divers other operations of Chyrurgery.

Which containeth XXIII. Chapters, whose Contents bee these; By PETER LOVVE *Scottish man.*

CHAP. 1. Of blooding, and such things as should be observed therein.
2. Of such Rules as should be observed in blooding.
3. Of the 17 vains of the head, the way to open them, and their effects.
4. Of the scituation of the 3 vains in the arme, the way to open them, and their effects.
5. Of the 3 vains in the hands, their scituation, way to open them, and their effects.
6. Of the 4 vains in the fundament, and their effects.
7. Of the 4 vains in the leggs, their scituation and effects.
8. Of things that ought to be considered to blood well.
9. Of things to be considered after the vain be opened.
10. Of Arterietomie or incision of the arterie.
11. Of boxing and ventosing.
12. Of things requisite before the applying of ventosies.
13. Of the way of applying ventosies.
14 Of blood-suckers or horsleaches, and their effects.
15. Of the S.ton, the qualities thereof, and way to apply it.
16 Of the actuall and Potentiall Cauters, and their composition.
17 Of Cauter potentiall, and their composition.
18. Of the Caution in applying the Cauters.
19 Of the way to apply Cauters.
20. Of Baths, and their effects.
21. Of certain cautions before bathing.
22. Of things to be observed before the entrie to the Bath.
23. Of Frictions, and the effects thereof.

CHAP.

Chapter I.

¶ Of Blooding, and the things therein to be observed.

Blooding, which the Greeks call *Phlebotomia*, and the Latines *Venæ sectio*, is an incision of the vain artificially done, either to retain, divert, or evacuate blood, and other humors contained within the body; for the which Avicen doth term it *universalem evacuationem*, and that for divers reasons: first, because it doth take away aboundance of humors which often are contained in the vains above measure; nert, it doth evacuate both good and evill humors, which are contained with the blood through the whole body above, and is a thing most necessary to be known by all Chyrurgions, not only for the healing of maladies, but also for the conservation of our bodies from sicknesse, and sometime both for healing and preserving; for the which it is most necessary that the Chyrurgion should know the number of the vains and their tru scituation, to the end he take not one for another: for sometimes the scituation is variable, and in parts not accustomed, very difficile to be opened. The Chyrurgion must also know the way to open them, with such things as should be observed before and after blooding, with the effects following thereupon, which be divers, reckoned by the learned; of the which Saturne maketh some mention in these Verses.

Gal. aphs. 2. com. 17.

Avicen.

Johan. Baptist. Sus. de sang. missendi rati.

Hip. com. in aphs. 25 ca. 47.

Exihilaret tristes, iratos placet, amantes,
Ne sint amantes. Phlebotomia facit.

which is to say, It maketh glad the pensive, and mittigates

the wrathfull, it impedeth lust, and such as are sick from being mad, especially by letting blood of the Cephalick vain. There be divers particular commodies which doe proceed of bleeding saith Galen, and divers other learned Writers: first, it quickeneth the spirit, and purgeth the brains, helpeth the memory, and maketh the senses more subtill clarifieth and sharpeneth the sight, voice, and wit, heateth the marrow, and wasteth such superfluous humors which make the marrow in the bone to be cold, it purifieth the whole senses, and removeth those fumes which ascend to the head and trouble the senses: it staieth vomiting, and lace, as saith Avicen, for it draweth the humor from the center, to the circumference; it profiteth much against immoderate waking, for it taketh away humors, from the which divers sharp vapors ascend to the head and stayeth sleep: it removeth heavinesse, dulnesse, and sluggishnesse of the body, helpeth difficulty of hearing, by taking away such humors as doe provoke thick vaporous spirits and send to the head and passages of the eares the same: it refresheth the pores and strength of the body, helpeth digestion, evacuateth evill blood, and is a naturall evacuation of all the whol humors of our body, by the which infinite maladies are cured, those be the commodities for the most part which doe ensue of bleeding, and are set down by *Saturne* in these verses;

Avic. 4 prim. cap. 4.

Johannes Baptista.

Sus. lib de sang. missio. Hip. apho. 22. Gualter Riff.

Heliogabalus. serm. 9. par. 2

Lumina clarificat, serenat Phlebotomia,
Mentes & cerebrum, callidas facit esse medullas,
Viscera purgabit, stomachum, ventremq; coercet,
Pures dat sensus, dat somnum, tedia tollit,
Auditus, vocem, vires producit & auget.

Seeing the commodities of this remedy is so worthy and necessary for mans health, how justly may wee blame those malicious ignorants that condemne the same, contrary to the opinion of the most learned, and against all reason and experience: Now it followeth to know the number of the vaines which ordinarily are opened by the learned, for curing

ring maladies, which be 41 in number, viz. 17 in the head, 6 in the armes, which is thrée in each one, 6 in the hands, 4 in the fundament, which is two in each ſide; 8 in the legs, the which vains muſt be opened diverſly, the great ones are opened long wayes, the little ones overthwart; that which is in ꝑ tip of the noſe, is opened by pricking of it, not lifting the skinne. As touching the particular opening of every vain, and the commodities following thereupon, you ſhall heare in the Chapter following particularly.

CHAPTER II.

¶ Of ſuch Rules as ſhould be obſerved in bleeding.

SOmetime the blood is uſed for the preſervation of the body from ſickneſſe, as you have heard, yet not commonly uſed in children afore 14 years of age, except in great neceſitie, neither in old people after 80 years, becauſe the abundance of blood at that time is not great, nor the forces ſtrong: but for the healing of diſeaſes which is the ſecond commoditie of bléeding, we doe let blood both yong and old people, and ſometime rather the old than the yong, for ſometime one of 60 will better endure bléeding than one of 20 and a child of two years old ſometime will endure bléeding twice in one day, and one of thirty, thrée or foure times in a day, as I ſometime remarke it. Secondly, wée muſt weigh the ſtrength of the ſick, for in ſtrong people wée let blood largly, thoſe that are weake and extenuate, not ſo much, although Galen, Celſus, and others, counſell in vehement dolours and carbuncles, to draw blood, *uſq; ad animæ defectum* of the which often come great accidents: ſo not to be uſed ſo largly: if the blood be evill and corrupt, you muſt take adviſe with the learned Phiſitian for the remedy thereof. Hernius and Galen doe counſell, if the blood bée evill and corrupt to draw it by little and little, & ſo procure

Raſis.

Avenzo lib. 7. cap. 3.

Galen, Celſus, Hip li. 1 apho. Pa. li 6. ca. 40.

Hurni. praxis medici

Gal lib 4 cap. 10. meth.

good blood by degrees in ſtead thereof, which muſt be done by good nouriſhment. If the body be of good habitude, well nouriſhed, and the vaines tumified and full of blood, you may draw more largely than of others, which are of a weaker and worſe temperance: ſuch as are trained up in hot Countries, nouriſhed with hot meates, doe better endure bleeding than thoſe in cold Countries, and they have their blood more hot, ſo are more ſubject to hot apoſtumes and fevers. The other cauſe of blooding, which is uſed for the preſervation of health, ſhould not be done in Winter nor Sommer, but in the Spring time, when many diſeaſes are cured, and muſt be done in the morning before the day grow hot, but that blooding which is uſed for the healing of ſickneſſes, may be done at all times and at all houres, according to the ſimptomes that happen to the diſeaſed; ſuch as are ordinarily accuſtomed to let blood either when the hemorrhoides or monethly courſes are retained, or to prevent great maladies, are let blood in divers parts according to the cauſe, ſometimes in the armes, otherwhiles in the legges or feet, as ſhall be found expedient. The excellent Aſtrologians are of opinion that the Starres, Planets, and Signes, have great power in mans body, and doe thinke that every humor of mans body, is governed by certaine of theſe ſignes, as the ſanguine by Taurus, Virgo, and Capricorne, the Phlegmatick humor by Aries, and Sagittarius; the cholleric by Cancer, and Piſces; the melancholick by Libra, and Aquarius; and according to their opinion with ſome Phyſitians, as Conſtantinus Affricanus, blood muſt not be let of that part where they alledge the ſigne to be: which ſignes is nor was not obſerved of ye moſt learned Phyſitians and Chyrurgions; like as Hippocrates, Galen, Oribaſius, Sardinius, Ætius, Paulus, Raſis, Avicen, Haly Abbas, and divers others, Latines, Greeks, and Arabians; for when the body is grievouſly oppreſſed with maladie and griefe, we doe not nor muſt not ſtay for the courſe of celeſtiall ſignes, either to purge or let blood, except onely in the critick

Tral li 9 ca. 2

Gal de ſang. miſſione.

Langfrancus. Gal lib de arthridide.

Hip. 7. apho. Oribaſius. Arnaldus.

Gal. de cura ratio. per ſan miſſio cap. 21. 6. meth. ca. 5

Conſtantinus Affricanus. Gal 4. aph 10. aph. & de curat. per ſang miſſio ca. 10.

critick or judgement day, which is called by the Latines *dies decritorii*, in the which in either ſick or hurt people happen oftentimes great mutations, or preſages of life or death which is very needfull to be remarked by all Chyrurgions. The critick day doth often happen after the beginning of the ſickneſſe, the 3, 5, 7, 9, 11, 14, 17, 21, or 28, day: in which daies, neither medicines nor bloodings ſhould be miniſtred, neither any naturall nor voluntarie evacuation be ſtopt; like as flure of the belly, blood at the noſe, urine, ſweat, vomiting, flure of the hemorrhoides or moneths in women, but gently to entertain the ſame. Some there be who follow the opinion of the Ægyptians in obſerving of daies which are invented by them, and are called *dies Ægyptiaci*, who were of opinion, if any had fallen ſick or been hurt in ſuch daies, they ſhould hardly have eſcaped: the which appears to me to be fabulous. Nevertheleſſe, according as they have written I will repeat them, and are theſe: the 1, and 7, of Jan. the 3, and 4, of Febr. the 1, and 4, of March: the 8 and 10 of Aprill: the 3 and 7 of May: the 10 and 15 of June: the 10 and 13 of July: the 3 and 2 of Auguſt: the 3 and 10 of Sept: the 3 and 10 of Octo: the 3 and 5 of Novemb: with the 7 and 10 of December. The excellent and learned Mathematicians doe ſay, that there is three certaine dayes that ſhould be obſerved by Chyrurgions not to let blood, to wit, the firſt of Auguſt, the 4 of September, the 11 of March. As likewiſe the 10 of Auguſt, the 1 of December, and 6 of Aprill, are obſerved by ſome Philoſophers to be very perilous to ſurfeit much in eating and drinking, for in them men may incurre dangerous ſikneſſes & often death. I read in an old Philoſopher Arabian, a man of divers rare obſervations, who did remarks 3 Mondayes in the yeare to be moſt unfortunate, either to let blood or beginne any notable Worke, viz. the firſt Monday of Aprill the which day Caine was born and his brother Abel ſlaine. The ſecond is the firſt Monday of Auguſt, the which day Sodome and Gomorrha were confounded:

Avic. 4. prim. cap. de Phleb.

Hip. apho. 21. Henricus Rantzovius

Gal. lib. 1. ad glaucon.

Philoſ. Arab.

Three moſt unfortunate daies.

founded: The third is the last Monday of December, the which day Iudas Iscariot was borne, who betrayed our Saviour Jesus Christ to the Jewes: these three Mondayes with the Innocents day, by divers of the learned are reputed to be most unfortunate of all dayes, and ought to be eschewed by all men for the great mishaps which often doe happen in them; and thus much concerning the opinion of our Ancients of dayes. So in like manner I will repeat unto you certaine dayes which be observed by some old Writers, chiefly the curious Astrologians, who did alledge that there were 28 dayes in the yeare which were revealed by the Angell to good Joseph, which ever have beene remarked to be very fortunate dayes, either to purge, let blood, cure wounds, use merchandize, sow seed, plant trees, build houses, or taking journeyes in long or short voyages, in fighting or giving of battaile or skirmishing: they do also alledge that children who were born in any of those dayes could never be poore, and all children who were put to the Schooles or Colledges in those dayes, should become great Schollers, and those who were put to any craft or trade in such dayes, without doubt should become a perfect artificer and rich, and such as were put to trade of merchandize should become most wealthy Merchants. The dayes be these, the 3 and 13 of Janu: the 5 and 28 of February: the 3, 22 and 30 of March: the 5, 22 and 29 of Aprill: the 4 and 28 of May: the 3 and 8 of June: the 12, 13 and 15 of July: the 12 of August; the 1, 7, 24 and 28 of Septem: the 4 and 15 of Octob: the 13 and 19 of Novemb: the 23 and 26 of December: and thus much concerning the dayes which are by the most curious sort of the learned remarked to be good, and evill. But to returne to the mediciners whose rules are more sure, and should rather be followed: There are some who doe precisely observe the course of the Moon, except for some reasonable cause, and doe observe the new Moone rather than the old, which ought to be considered by reason of some other evacuation, for the which old women must be let

Herod did kill the children.

Fortunate daies reckoned by the Astrologians.

blood

blood in the old of the Moon, and yong women in the new, as noteth Gordonius, in these words.

Luna vetus veteres, Juvenes nova Luna requiris,

If he whom we would let blood be constipat, give him a glister remollient, or some *Cassia Manna*, or some other gentle purgation: yet in some cases we let blood without any purging, proceeding as in Pleurisies, inflamation of the lungs, apoplexies, squinances, suffocations, flure of blood at the nose, and in such persons who abound in blood, and not of evill humors; also in women with child, especially if they grow heavie, slipperie, and over-charged with abundance of blood: also such as have had great falls from high places, with such as by any accident are become dumb, such persons we let blood in both the armes largely: further we must consider if the meat he eateth be digested, and if the blood be grosse, use frictions to subtillize it and make it run: if any great and long maladie hath proceeded, or great evacuation either of the hemorrhoides or monethly course, flure of the bellie, or vomiting, bathing, cold regions, or complexions in people over-old or over-young, long waking, or great using of women: in those cases blooding should be deferred except for great occasions, and then it must be moderately done; those lets or impediments are set down by Saturne in these verses.

Gal. lib. 10. de com. medic. secund. loc. cap. 2.
Avic. 4. prim. cap 4.

Langfrancus.

Roge. lib. de phlebotoma venarum.

Frigida natura, & frigens regio, dolor jugens
Balnea, post coitum, minor ætas atq; senilis
Morbus prolixus, repletio, & estas
Si fragilis vel subtilis sensus stomachi sit
Et fastiditi tibi non sunt Phlebotomandi.

Also such as be let blood should have his minde so much as can be free of all passions, chiefly fear which retyreth the blood to the center of the body; if he fear fainting, he must eate

eat an egg before, or a toaſt in wine and lye on his bed, beware to ſleep immediatly thereafter for divers reſpects, as ſaith Saturne in theſe Verſes.

Sanguine ſubſtracto ſex horis eſt vigilandum
Ne ſomni fumus ladat tibi ſenſile corpus
Ne nervum ladas, non ſit tibi plaga profunda
Sanguine purgatus ne carpas protinus eſcas.

After the bleeding keep diet for a day or two, eating things of light digeſtion, abſtain from Milk, all ſalt meat, cold drink, and aire, uſe moderate exerciſe.

CHAP.

CHAPTER III.

¶ Of the ſcituation of the 17 Vains in the head, the way to open them, and their effects

The vains which be the proper receptacles of the blood, are diverſly diſperſed through the whole body of man, carrying the ſame to every part thereof, which often be opened for letting of blood; of the which we are to ſpeak at this preſent, and firſt of thoſe in the head which commonly be opened; the firſt is called *vena frontis, preparata* or *recta*, and proceedeth of the Jugular intern, ſituated in the middeſt of the foreheard, for the opening of the which, thou muſt bind the neck with a napkin till the vain appear, doing the like in all other vains of the head, next draw the Lancet on the vain, and open it aſtope, take heed you goe not too deep for fear of the Pericran.

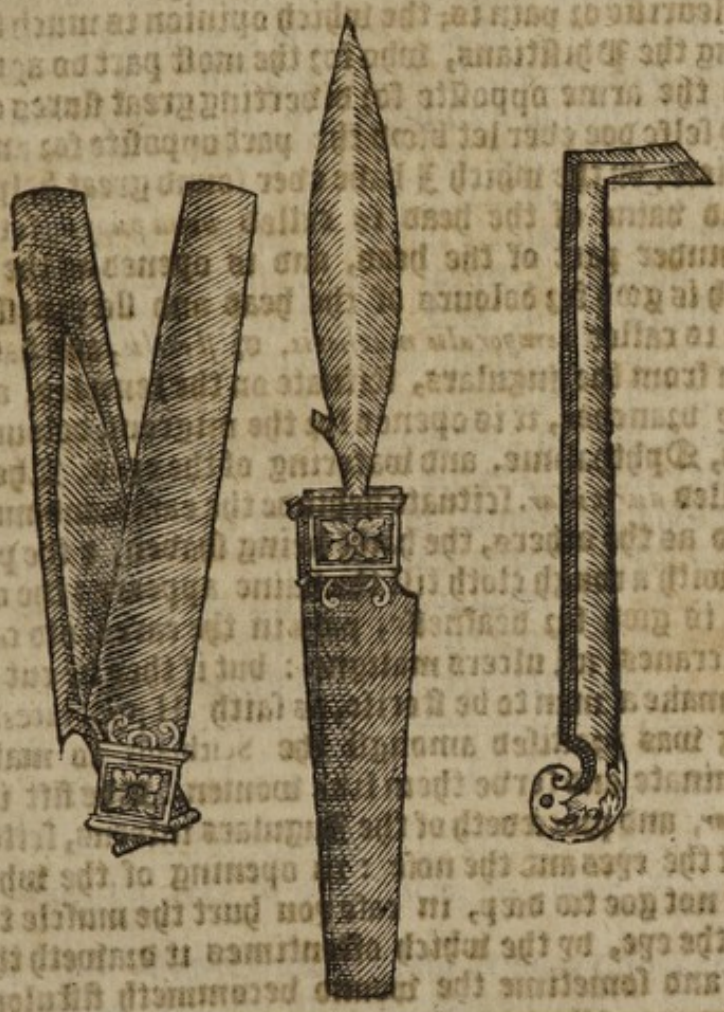
Vains in the head that be opened.

Alb. li. 2 ca. 95.

Portraiture

Portraiture of the Vaines which Chyrurgions doe comonly open.

The



It is good for all inveterate dolours of the head, chiefly the hinder part of the head, for all diseases of the face, and inflammation of the eyes, phrenise: this kinde of blooding doth divert or turne, & pluck back the blood the contrary way, and is called by the Latines *Revulsio*, and by the Greekes *Antispasis*, it hath been used by our Ancients for a soveraigne remedy, *Hip. 5 aph. 68.*

Avic. 3. primi

Gal lib. de curat. per san. missionem. cap. 16. & lib. artis med c. 59

Baptista Sus. lib. de sang. missione.

remedy, as witnesseth Avicen. and divers others of the learned, who did open the basilicke vaine of the right arme for a Pleurisie on the left side. Hippocrates and Galen doe counsell to let blood of the basilicke vaine of the same side where the pleurisie or pain is; the which opinion is much disputed among the Phisitians, who for the most part do agree to let blood the arme opposite for diverting great fluxes of blood. I my selfe doe ever let blood the part opposite for any paine or grieke, by the which I have ever found great helpe. The second vaine of the head is called *vena puppis*, scituate in the hinder part of the head, and is opened as the former, which is good for dolours of the head and sleepinesse. The

Alb li. 2. ca 95.

third is called *temporalis machoris*, or *sterilis*, and hath the origen from the jugulars, scituate on the temples, and hath many branches, it is opened for the migrom, dolours of the eares, Ophthalmie, and watering of the eyes. The fourth is called *auricular*. scituate behinde the eares, and must be o-

Alb li. 2 ca 95

pened as the others, the haire being shaven, & the part rubbed with a rough cloth till the vaine appeare: the opening of it is good for deafnesse, pain in the eares, old catarres, hemicranes, all ulcers maligne: but if they be cut wholly,

Hip. lib. de Aera & aqua.

they make a man to be sterile, as saith Hippocrates, which thing was practised amongst the Scithians to make men effeminate and serve them like women. The fift is called *Ocular*, and procedeth of the Jugulars interns, scituate betwixt the eyes and the nose: in opening of the which you must not goe too deep, in case you hurt the muscle that moveth the eye, by the which oftentimes it draweth the eye aside, and sometime the wound becommeth fistulous: all the vaines of the head should be opened with Flambets, especially in such as are not skilful, for feare of not going too

Avicen: Haly Abbas. Albuc ibid.

deep, the opening of this is good for maladies of the face, affections of the eyes, eye-lids, and scabs. The sixt is called *Nasall*, scituate on the tippe of the nose betwixt the cartilages: in opening of it goe deep with the Lancet, it is good for heavinesse of the head, fluxions on the eyes, and all red-

nesse

nesse of the face, yet not commonly used, neither was opened by Galen nor any of the Greeks. The 7 is called *Labier*, scituate in the inner side of the lippe: the opening of it is good for corruption of the gummes, fissurs in the lips, Ulcers in the gummes and nose. The 8 is called *Ranall*, under the tongue, and procedeth of the Jugular intern, it is opened overthwart, not going deep in feare to make the tongue immoble, because there the nerve motive is neare unto those vains: it is good for the scinancy, inflammation of the Amigdals, Ubula, and other affections or apostumes of the mouth and throat, as also for such as become dumbe and loose their speech any wayes. The ninth, is the Jugular, and taketh his originall from the vaine cave ascendent: it is good for the scinancy, inflamation of the halse, Suffocation, fluxion in the throat, Leprosie, melancholique maladies, maligne and corrodent Ulcers, Hemicrane, and Rhume. Remember that all the vains of the head must be opened as the rest. Avicen is of the opinion, that the vains of the head being opened, letteth generation, because of the animall spirits which dissip, the which opinion is refelled by divers of the learned and dayly experienced.

Albuc. ibid.

Haly Abbas.

Roge. lib de phlebotoma venarum.

CHAPTER IIII

¶ Of the scituation of the three Vains in the arme, the way to open them, and their effects.

The first of three vaines in the arme is called *cephalica*, *spatulina*, *capitalis*, or *humeralis*, as saith Galen which is most high and externe in the arme, & hath neither vaine, artery, nerve nor tendon under it, in opening of the which make a good issue, otherwise it is in danger to apostume, because that oft there remaineth lappered blood, for ꝑ thicknesse of the flesh; it is good for all dolours and paine of the head, eyes, eares, throat, and Epilepsie. The second is called *mediana*, *vena matricis*, *matricalis*, *medistina*, *cardiaca*, or *purpurea*,

Alb. li. 2 ca 95.

Rabis, Oriba. Avicen, Haly Abbas.

purpurea, it is composed of the basilicke and cephalick scituated betwixt them, in the middest of the arme, under it is a nerve or tendon of the muscle *biceps*, sometime both, for the which we must be warie and take good hæd in opening it, for feare of Gangren, convulsion, or dolour, it must be opened athwart, and is good for all diseases that happen to the body, both superior and inferiour. Once I saw in opening of this the nerve pricked, of the which, within ye space of foure dayes after, there came a soft tumor in the *Omoplat*, with a relaxation of the joynt, as also all the joynts of the body, for the which the deep profounding is forbidden by Avicen and Rasis. The third is called *basilica, hepatica, vena interna, stercorina, regia*, or *vena axillaris*, and is scituated low down in the arme, accompanied with a great arterie under it, for the which you must have a great care and beware of Aneurisme. Rasis forbiddeth to bleed in this vain, but in great necessitie. It is opened for the obstructions of the liver, inflammations in all the body, as also parts under the head, hardnesse of the liver, dolour of the stomack, pluritie, and difficultie of breath.

Gal Riff.

Rasis lib. 28.

CHAPTER V.

¶ Of the three Vains in the hands, their scituation, the way to open them, and their effects.

THe first of the three vaines is called *cephalica*, or *ocularis*, and is scituated betwéen the thumb and formost finger, and is opened long wayes, because it is little, and is good for dolours in the head and affections of the eyes. Galen saith, That the vains in the hands give not much blood, because they are but little branches, and therefore were not opened by the mediciners Gréeks. The second is called *saluatella, titularis*, or *asellaris*, and is only a branch of the *basilicke*, it is scituated betwéen the middle finger called *medius*, and the third finger called *auricularis*, and is good for the

Gal lib de san missione.

Gal defecti.

the jaundise and maladies of the liver, being let blood in the right hand, and the other in the left hand called *Splenetica*, for the affections of the milt, and divers other commodities which ensue thereupon, as at large is set down by the learn-School of *Saturno* in these verses,

Ex salvatella tibi plurima dona minuta
Splenem hepar pectus vocem præcordia purgat,
Innaturalem tollit de corde dolorem.

The third is called *funus brachii*, and is a branch of the *cephaliche*, scituate on the finger *medius*, opened in default of the other two. These vains must be bathed in hot water, in opening of them, as those in the feet.

CHAPTER VI.

¶ Of the four Vains in the Fundament, and their effects.

IN each side of the Fundament are scituated two vains Hemorrhoidals and are opened for affections of the fundament, especially the Hemorrhoides, and divers other melancholique maladies.

CHAPTER VII.

¶ Of the four Vains in the Leggs, their scituation, and effects.

THe first of these four Vains is called *Poplitica*, and cometh from the vain *Femorall* as all the rest, it is scituated in the bending or ply of the ham, open it for all affections in any part contained in the inferior venter. The second is called *Saphena*, scituated within the foot, neer or above the anckle on the inside, opening of it, ye must not profound deep, because the parts are nervous, and so mortall accidents often happen. Note that all vains in parts nervous, must be

be opened longwise, except Sciatica which must be opened a little athwart, yet Galen saith that all vains in parts nervous must be opened longwise, and are not so much subject to evill accidents: this being opened is good for affections of the kidneys, matrix, gonorrhea maling that returnes in again, and also it provoketh the purgation in women. Be circumspect in letting blood the foot, for it weakeneth more than any other, as saith Avicen, therefore I used alwaies to women a tablet cordiall, or else they eat somewhat afore. The third is called *Sciatica*, scituated above the anckle, and is opened athwart, as yée have heard, it is good for Sciaticks, dolours in the thighs and anckles. The fourth is called *Medium* or *renall*, and is scituated under the bending of the foot, and is opened for such maladies, as the other. Some say, that above every knée about thrée fingers there are two great vains, which the Arabians call *Salfores*, and say if the sick be let blood in them, he dieth presently, but Galen is not of their opinion.

Gal. de curat. per san. missi.

Chapter VIII.

¶ Of things which are to be considered to bleed well.

First, the Chyrurgion must be in a light place either naturally, or with candle, also his own sight should bee good as saith Haly Abbas, and must have a ligator, that goeth twice about the arme, an inch broad, also he must have a round staffe to hold in his hands: in like manner a little oile to rub on the vain to make it souple, also annoint the Lancet with sallet oile, before the blood which will appease the pain, he must have divers Lancets, of the which some are large, some round pointed, when the pain is superficiall, also when need is to make a good issue and evacuation, which we use in putride fevers, and when the blood is thick and the sick strong: some must be long, sharp pointed to open

Lib. 9.

Rasis.

open when the vains are deep and hidden, as also to make little issues in small superficiall vains, and when need is to make derivation as if the person spit blood, or bleed at the nose. The issue you make, must bleed long to divert it: wee make ye issue little in people that are out of their wits, that the issue may be sone consolide, by reason that such people lose the bandage, and oft bleed much. The incision must be made one of 3, wayes, to wit, in length, breadth, and oblique, making alwaies an incision in middest of the vain, not cutting it altogether, which if it be, ye blood commeth not well, but alongst the arme, & the extreamitie of the vains retireth one from another. Then let him make the issue as it should be, and cause the blood to come well out, rub first the arme, if thou wouldst bleed gently, with a hot cloth or thy hand, then knit it with the ligatour a little abov the elbow, let the binding be steady, so the vaine will shew it selfe the better, then the sick shall close his hand, that the vaines may shew the better, thereafter if it be the right arme ye Chyrurgion shall take it with his left hand, neere to the part where he intendeth to make the issue, holding his thumb on the vaine that it stirre not, for oftentimes it roleth and slideth from the Lancet, sometime it yeildeth being full of wind. This being done, he shall mark the place with the formost finger of the right hand, making a little marke with his naile on the vaine, then he shall take the Lancet betwixt the thumbe and the formost finger in the midest of it, and to the end that he tremble not, he shall leave the other three fingers on the arme, and leave the finger and thumb that holdeth the Lancet on the left thumb which holdeth the vain, then open the vaine softly, sliding the point of it in the vain, not suddenly: if the vaine be not opened at the first time, prick suddenly againe a little above or under the first, ye may doe the same if the hole be not great enough to let out the blood in a reasonable quantitie. The vain opened in that manner, the partie shall hold the staffe in his hand, that he may rest his hand, and the blood come out the better. Having drawn such

Rasis. Bartapallia.

Ætius lib. 3 Haly abbas. lib 1.

Guliel. de sal-veto

such quantitie of blood as the cause requireth, he shall presse out that which remaineth, if there come out any fat as oft happeneth in grosse people, thou shalt put it in againe, that done, put a peece of cloth the breadth of three or foure fingers double on the wound, and wet it in water, binde the arme with a band of an inch broad, that goeth 3 or 4 times about the arme, winding it about above the elbow and under, that it neither be too straight, nor too slack. If the vaines be small, blood then after meat rather than before, for then they are more full of blood, doe not eat nor drink for an houre or two after.

Gal Avic. Averrois.

Chapter IX.

¶ Of things to be considered after the Vaine is opened.

Oftentimes chanceth after the Vaine is well opened, that the blood commeth well forth, and afterwards suddenly doth cease, it happeneth through too straight ligatour, saith Averrois, or else for an apprehension, and sometime through wrong and evill scituation of the arme, in these points yee must slack the ligatour, comfort the partie, and scituate the arme right, sometime the cause is in the thicknesse and grossnesse of the blood, for the which rub the place incised with a little oyle. If the partie be weake, which shall be known by the changing his colour and the blood running alongst the arme, in this ye shall loose the ligatour, close the wound, lay the sick on his back, cast water in his face, and vinegar to smell, & give him a little wine, within a while after loose the band and let him bleed, till ye have got such quantitie of blood as shall be requisite, stirre not nor labour thy arme, but carry it in a figure triangular, sleep not two houres after. Let the blood stand, to know the nature of it, for in our body there are divers sorts very variable, according to the diversitie of the age, the complexion, country,

Averrois.

kind

kinde of the sicknesse, and parts of the body. We shall judge the nature and qualitie of the blood three waies, by colour, taste, and substance. As for the colour, good naturall blood should be red, sweet as phlegme naturall, and of mean substance, when it congealeth not, it is a signe that some of the other humors are with it, when it is red, clear, and glittering, it signifieth aboundance of choller, when it is blackish, aboundance of melancholy naturall or adust which stoppeth it to congeale, the fatnesse of the blood keepeth it also from congealing.

Arist. lib. 2 de partis animal. cap. 4
Gal lib de atra bile & de simp. med.

Chapter X.

¶Of Arteriotomie or iucision of the Artery.

Like as for divers maladies, we let bood the vains, so we doe in some arteries. *Arteriotomia* is a detraction of blood by the division of the artery, which was not much used save onely *Menodotus*, *Albucrasis*, and some others, but is greatly in use now, chiefly those in the temples & behinde ye eares, for great fluxion of catarres on the eyes, breast, and maladies of the head ingendered of a hot fluxion inveterated, and vaporous spirits which are contained in these arteries. In opening them, first I shave the haire, and rub the part with a rough warm cloth, that the artery may appeare the better: in opening the arterie of the temples, tye fast the neck with a napkin after the forme as you have heard in opening the vaines, then consider with your finger the beating of the arterie, then mark it with a drop of ink or with your nayle, then make a little incision in the body of the artery, as in the vaine, not cutting it altogether, draw such quantitie of blood as is needfull, then stay it, and put one the wound an emplastrum of Mastick, or halfe a Bean cloven, with a compresse and bandage. Some feare this kinde for that the blood is ill to stay, and also for an Aneurisme: it is good in long dolours of the side, and all dolors that pro-

Celsus.
Alb li. 2. ca. 2.
Gal lib. 1. libro.
Paul lib. 4 cap. 35.

Alb. li. 2. cap. 4 ced from an hot pituitous substance, also for swiming, gid dinesse, long defluxion, and weeping of the eyes.

CHAPTER XI.

¶ Of Boxing, and Ventosing.

VEntosing which the Latines call *Ventosatio*, is no other thing but application of an Instrument, either for the evacuation of some humor under the skinn, or to divert the course of an humor to some other part, and to draw away such things as are hurtfull, that nature cannot chase forth, and also to draw out winde in some part of the body. It is called *cucurbitula*, or *pixis* and is made of brasse, horn, glasse, wood, or earth, in divers forms, some short, some long necked, for the most part wide bellied, and are called *ventoses a ventre*, as saith Avicen: some are bigg, some lesse, according to the proportion of the member, the mouth is reasonable wide, the lipps round and thick, and are applied most commonly in divers parts of our body. They are sometime applied with scarrification and extraction of blood, otherwiles without scarrification, as also on divers parts of our body, according to the cause, as to draw out some hurtfull humor of the body, with scarrification and extraction of blood. First wee applie them in the neck to evacuate the humor from the head, for heavinesse of the head, fluxions on the eyes, affections of the face, and stinck in the mouth: secondly, wee apply them on the middest of the neck behinde, for difficultie of breath and cough: thirdly, under the chinn and sides of the neck, for dolours and ulcers of the mouth, corruption of the gumms, Megrim, Opthalmie, and sore teeth: fourthly on the shoulders for diseases in the thorax, pleurisie, spitting of blood, affections on the shoulders, of repletion, for many affections of the head and throat: fiftly, on the region of the reynes, good for apostumes and dolours of the reynes and liver: sixthly, on

Gal. 15 me. med cap 4. Alb li 2. ca 98.

Henricus Rantzovius.

Hip. apho & li de oculorum morbis Magni. regi sanitat.

on the middest of the armes, for dolour in those parts, and in stead of letting bleed, and is used both in old and young: Seventhly, on the *os sacrum*, and thereabouts, and is good for the hemorrhoides and fistules in the fundament: Eightly, on the middest and rootes of the thighes, and is good to provoke the monethly course, for strangurie, dolours of the matrix, bladder, and kidneys. The ventosies without scarrification, which we call dry ventosing, are applyed for the most part in a 11 places. First, on the open of the head, for relaxation of Uvula, and to stay the rhume, as saith Galen. Secondly, upon the *hypocondres*, to divert the bleeding at the nose, as saith Galen, when the right nosethrill bleeddeth, put the Ventosies on the region of the liver; if the left side on the milt, so in like manner on all parts that bleed, we put the Ventosies on the part opposite, for the communication that the vessels have one with another. Thirdly, on the pappes, to divert the purgations that run much, according to the saying of Hippocrates, *Si mulieri menstrua sistere volueris cucurbitulam, quam maximam sub mammis defige*, and for the ventositie about the liver. Fourthly, in ꝑ beginning of the nerves for Palsie. Fiftly, on the Navill for the windy collock. Sixtly, on the flanck for ventositie of the milt. Seventhly, on the navill or wombe, to reduce the intestine, or matrix fallen, ventosities in the belly, and dolours which happen in time of purgations. Eightly, we apply them on uritors, to draw downe the stones and gravell to the bladder. Ninthly, on the eares and mouth of Ulcers, to draw out any thing contained therein, also for drawing out of poyson. Tenthly, if any where there is matter deep, to draw it out to the superfice, as in *bubons venerians*, also in *parotides* malign, or in any other part where need is to draw any thing to the superfice. Eleventhly, on the nesk for Squinancy.

Rasis lib. 9 c 8.

Hipp. 5. aph. 3.

Bartapallia.

Guydo

Avic. 3. canod.

Haly Abbas. lib. 9.

Oribasius.

Chapter XII.

¶ Of things requisite before the applying of Ventosies.

First, if the body be plethorick, it must be taken away by bleeding, otherwise the ventosing is noysome; next, if the blood or humors be thick, wee use to foment the place with hot water, and rub it long with a hot cloth; thirdly, that yee never scarrifie, except the application of the dry ventosies have proceeded, because the blood must first be drawne to the place before it be evacuated: lastly, that it be not applyed in the bath, but an houre or two after, or longer.

Gal. Avicen

Chapter XIII.

¶ Of the way to apply the Ventosies.

The Ventosies are applyed with hurds being fastened to the bottome with a little ware or emplastter, to hold it that it fall not on the skinne, that being done, light them and apply them on the part. Some use two or three peeces of Ware candles put on a peece of a Card, money or Gold, the breadth of a crowne, being lighted, set them on the middest of the part, thereafter apply the ventosie, and being applyed a certaine space, ye shall, for to take it away, presse the flesh under the lippe of it, to let in the ayre, and so it shall fall, which being done, make certaine scratches in the skinne with a Lancet, sometime many, otherwhiles few: in delicate folke and children, we make few scarrifications, if the blood be thick, make the scarrifications profound, if the humor and blood be subtill, the scarrifications must be superficiall, and apply the Ventosies as before, let it remaine a reasonable time, and evacuate the blood, as yee shall find expedient, if not sufficiently at one time, yee may reiterate

Magninus.
Albucrasis.
Haly Abbas.
Galen.
Paul. li. 6. c. 41.

reiterate twiſe or thriſe, alwaies ſcarrifying, eſpecially when there is veneneſitie or malignitie in the place, by reaſon of the blood being thick and groſſe. That being done, it ſhall be very neceſſary and expedient to dry the place with a ſoft cloth, annoint it with oile of Roſes, butter, *cerut Galen*, or *roſat Meſues*, and ſleep an hour after. *Alb. lib 2.*

CHAPTER XLIII.

¶ Of Horſleachs or Blood-ſuckers, and their effects.

THeſe little beaſts, which the Latins call *Sanguiſuge* or *Hirudines*, in our tongue Horſleaches, are little worms, the length of two inches or three, great, like to a Goſ-quill, well known to all Chyrurgians, ingendered in freſh water, ponds, pools; of the which there are two ſorts, the one maligns, as thoſe which are bred in rotten ſtanding water, where carrion hath been caſt, of the which come great accidents, as tumor, inflamation, ulcers, apoſthumes venomous; as we read of one *Meſſalinus*, who died by putting one on his knee. Therefore we muſt abſtain from thoſe that have the head greater than the reſt of the body, and are green coloured, glittering, with blew raies on the back, the reſt of the body being black: wee muſt chuſe ſuch as are found in clean water, in ponds and ſandy ground, that have their heads little and bodies ſmall, round, red bellied, the backs raied like threads of Gold, ſuch ſhall be kept a day or two in clean water, to purg them before they be applyed, as alſo to cauſe them draw the better. Some keep them ten or twelve daies, changing the water once in two or three daies, after the which manner they may be kept a whole year in glaſſes or potts of earth, changing the water once in ten daies, with a little cromes of white bread, we uſe them for the ſame purpoſe, as ſcarrifications, and in ſuch places where ventoſies cannot be applyed, as in the lippes, *Magni. regi. ſanitat.* *Arnaldus de villa nova.* *Haly Abbas.* *Avicen.* *Theodoricus.*

lipps, gumms, leggs, fundament, mouth of the matrix, and such parts as are emptie of flesh, as nose, fingers, toes, also about old Ulcers, and Apostbumes of the emunctorres and others that are venomous, rubbing the part ye put them on, till it grow red. They draw only superficially the blood which is in the flesh, and so are good *pro morbis subter curaneis*, like as in the scabbe called *vitiligo*, which is a foulnesse of the body, with spots of divers colours: also in the disease called *impetigo*, which is that which wee call ordinarily the King-worm: also in great itching in any part they bee thought meeter to be used, than scarrification, because they draw the corrupt blood more profoundly: if they be applyed on the fundament, they make evacuation from all the members, the part where wee apply them must bee very clean, otherwise it will not abide, in applying of them, take them with a peece of clean cloth, or with your hand; softly hold their head to the part you would have them bite, and for the more easie doing thereof, wee put a drop of Pigeons or Chickens blood on the part, or pick the part a little to cause some blood to come out: then if you would have them to draw much, cut the ends of them with the sheers to let the blood runn: otherwise, if they fall away too soon, you may applie fresh ones in their place, or the same being well stripped, and the blood expriunt out of them betwixt your two fingers: if you would make great evacuation, you may apply two or three at the first, to make them fall away you shall put a corn of Salt or drop of Vinegar on their heads, or a few finders, otherwise separate them with an horse haire: if after they fall the place bleed too much, we apply Cotton, or burnt cloth, or cloth wet in cold water, or halfe a Bean bound and tyed to the part: sometimes by unskilfulnesse it happeneth the Blood-suker doth draw too much, or else the partie is suffered to bleed much after they fall away, whereof evill accidents often happen; as chanced in the person of a worthy and notable Captain my good friend, called Captain Gonsales a Spaniard, who having

Alb. l. 2 ca 37.

Gal lib de horundin

Henricus Rantzovious.

some

some Ulcers on his leggs, did cause to apply eight Horseleaches thereto, by the which he lost neer six pound of blood, thereafter fell in *Icteritia* and ebulition of cholerick humor, *quia sanguis est frenum cholerae*, thereafter he became hydropick incurable, *quia qui callidi sunt hepate si in ascitem incidant omnes fere sunt deplorati*, so this Gentleman died to the great griefe of many; so my counsell is, that after they be taken away and made reasonable evacuation, that you by all means stay any further flux of blood. If there be venenositie in the part after they fall, we foment the part with water and salt, sometime a cornet or little ventosie to draw out that which they have left, some doe use before the applying of them, to purge the body, if it be repleat with humors.

Chapter XV.

¶ Of Seton, the qualities of it, and way how it should be applied.

Seton, which the Latines call *Seta*, is a little round cord, which of old was made of haire or thread and now is ordinarily made of small Linnen cloth, wollen, yarn, or silk, and is drawn through the flesh or skin with a sharp needle, in divers parts of our bodies for divers occasions, like as for revulsion, evacuation, derivation, or interception of some humor, like as in the neck, betwixt the 1 and 2 vertebre, sometime lower down, and is good to divert and draw away fluxions from the eyes, catarho from the head, which might fall on the stomack, gummes, loines, back, hanches, and other joints or parts of our body. Secondly, we apply it in the Navill, when it is swelled or tumified with water or other humors. Thirdly, in the codds, for water or weak humors contained in those parts; as also for such as are hydropick. Fourthly, wee apply them in wounds which doe penetrate through one part to another, as.

Definition.

Divers places where the Seton should be applyed.

as through a legg, thigh, arme, or other part for the better evacuation of matter in those wounds, they are applyed with an hot Iron as did our Ancients, or without fire as now is commonly practised: for performing whereof, if in the neck, we set the sick in a chair, then one taketh the neck behinde, where you would apply it equally, betwixt his hands neither more to one side than to another. I doe ordinarily marke the part with inke before, then take the skinn with the one hand next the head, and the other lower down, leaving two inches or thereabout void betwixt the hands, then the Chirurgion shall take hold of the same with his pincers.

Instruments

Instruments of Seton.

made

made for that purpose, thereafter pearce it with a sharpe Instrument, then passe the needle through both the holes of the pincers, being first threaded with the Seton or cord: some doe use onely the needle being sharpe-pointed, for this purpose, beware you pick not the muscle of the neck, so you must hold the skinne fast with the pincers, and cause the sick to move his head, so you shall easily perceive if the muscle be taken hold of: if so be, let goe the gripe and take onely the skinne, then pearce and passe your needle with the Seton which shall be an ell in length or thereabouts to the grossnesse of a small Goose quill, then take out the needle, and let the Seton remaine, rubbing so much of it as possesseth the wound with common digestive, fresh butter, or *serat Galen*, and above the wound apply an emplaster of *seratum refrigerans Galeni, rosatum Mesues*, or such like for two or three dayes, thereafter *betonica* or *diapalma*: some for this purpose doe onely apply Woodbind leaves as wee use in Cauters, drawing the Seton the breadth of the wound every day at morning and night, till it be almost neere the end, make it ever clean, that no filth remaine on it, then draw it the other way after the same manner, by the which meanes one Seton will serve a moneth, or longer: when you please to change it, sow another new Seton finely to the end thereof, in such sort that it slip not in through passing, then cut away the old, and leave the new, and continue this form so long as shall be found expedient, while the humor be well evacuated, diverted, or intercepted: some in long maladies doe continue this one yeare or two according to the greatnesse of the disease. To apply the Seton in the Navill, or coddes, you shall onely take hold with your pincers the cods, or skin of the Navill, and pearce it with a reasonable great Needle, passing and using it as the former; it were very good before the applying of the Seton, to purge the body, as also a little after it be taken away, for feare the evill humors take their course to the part where the Seton was before.

CHAP-

CHAPTER XVI.

¶ Of Cauters actuals, their forms, and whereof they are composed.

THe Cauter actuall, which is called by the Latines *Cauterium actuale*, is a remedie that hath bẽn thought by our Ancients very profitable for the help and recoverie of many diseases: it doth burn actually the part where it is applied, and is most commonly made of Iron, Brasse, or Lead: some are made for the wealthier sort of Gold or Silver, in divers formes, according to the disease and part where they are applied, as ye may perceive in Lib. 9. Chap. 7. and it is thought for some diseases oftentimes to be more meet to be used: than the potentiall Cauter: if we consider the nature and substance whereof the potentiall is composed, by reason that some ingredients thereof are venomous, and the actuall is without venenositie, so more healthfull also, very sudden, and sure in operation, not offending nor causing any accident to the parts adjacent where it is applyed: it is enemie to all venome and corruption, preserveth the part where it is applyed from putrefaction, and consumeeth mightily the maligne and venomous quality which is hid in any part of the body, it being there applyed, it correcteth the cold weak temperature, consumeth and dryeth up all superfluous humiditie, with divers other profitable helps: For the which learned Chyrurgions of old, did use divers formes of actuall cauterizations, as witnesseth Galen, Hippocrates, and others who sometime did cauterize with burning oyle, stampe the roote of *Aristolocea* therein, then light it at the fire, and applied it burning to the part. Celsus, Aurelius, Dioscorides and Attilus, sometime did cauterize with drie goats dung fired, Ætius with burning oyle, Albucrasis did cauterize teeth and other corrupt parts with boyled Butter, Guydo with melted Brimstone: all those formes were wont to be applyed in divers

Gal. 6. simp. cap. 27. Alb li. 1. cap 2.

Celius, Aurelius, Dioscorides, Attilus, Ætius. Alb li. 1 cap. 2: Guydo

divers parts of the body, for divers occasions. Like as for discharging of nature, either by revulsion, interception or evacuation of any humor, which did offend either in quantitie or qualitie, also for evacuating of a malignant and venomous vapour that is hid in any part, chiefly about Ulcers corrosives, and ambulatives, fluxions of the nose, *Ægilops*, sciatick passions, and all other parts that require evacuation, they are sometime applied on the head, at that part where the suture sagitall doth end, and the coronall begin, which I have often practised for the megrom and other dolours of the head, by which means divers grosse humors and vapors doe exhale from the brains: they be likewise applyed for the Epilepsie, to give issue to some vapour venomous at that part which often causeth the disease, they be also used for shortnesse of breath, dolours of the teeth, eares, and squinances, inflamation of the amygdals, *Columella*, and other diseases of the mouth, anheles: also for the haires which grow within the eylids, in *Polipus*, *Ozena*, some use to apply them in five sundry parts of the head, for Leprosie: but for the rare effects which follow upon it, for the present, I will overpasse them. These be the formes and utilities of those actuall cauters which was practised by our Ancients: On those parts where we apply those Cauters for Gangrens, or great flux of blood, we put on the parts adjacent a compresse wet in Oxicrate, juyce of Plantine, Myrall, or whites of Eggs beaten with Plantine, water, and the cauter being applyed to corrupt bones: in Ulcers we apply about the borders of the sayd Ulcers, little peces of cloth wet in either of those liquors, or a little *refrigerans Galeni*, which both doe pacifie the paine, and causeth the escharre to fall: it softneth the escharre and parts adjacent, by the humiditie. This Cauter by the heat doth excitate the naturall heat from the center to the circumference, after the applying of it, wee commonly doe use a digestive made of oile of Roses, Turpentine, and yolks of Eggs; others use only oile of Eggs, and Turpentine, mixed

Albu. loco cita.

mixed with a little powder of *Aristolichia*, & Beane meale. Some late practicioners (chiefly the Italians, who have beene more curious than is needfull) have for the most part neglected all those formes of cauterizing, alledging them to be over-vehement, fearefull to be practised, and not to be used but in great extremities, like as in staying of vehement flux of blood, in great vaines and arteries, in gangrens and mortifications, carbuncles and bubons malignes, corrupt and rotten bones, they being enimies to all rottennesse and corruption, and helpeth the separation of the bones; also in venomous Ulcers and biting of venomous beasts, are very profitable: as for all other occasions that they were used for by our Ancients, wee now doe use in their place the potentiall Cauter, as you shall heare in this next Chapter.

CHAPTER XVII.

¶ Of the cauter Potentiall, and composition thereof.

THe potentiall cauter which the Latines doe call *cauterium potentiale*, or *piroticum*, is that which by the extreame heat hath the force to burne the part where it is applyed like fire, leaving an escharre or crust. It is composed of divers sorts of matter which be hot in the fourth degree: of these, some be extreme hot, others not so hote according to their operation. Among the which are reckoned Cantharides, Vitriol, Tartar, Arsenick, Orpiment, Sublimat, strong water, oyle of Vitriol, Cloves, Sage, or Brimstone; as also of divers other things, as ashes of the barke of Ashe, Palme, Oake, Figge, and Vine-tree, Beane stalks, quick Lyme, Salnitre, Ammoniack, *Axungia vitrei*, Vine-stone, and gravill, all these or a part of them ye may steep in water foure or five dayes, covering them close, and removing them with a peece of wood every day, morning and evening, then straine it through a cloth, and keep it in glasses. Definition.

ses for your *lixivium* or *capitellum*; when you have to doe to make your cauters, you shall boyle such quantitie of that lixive in a brazen pan at an hot burning fire, till such time as it shall be consealed to salt or stone, which being taken from ꝑ fire, you shall cut it in little peces, to the bignesse of a pie or halfe a pie, and put it in close glasses, that no aire enter therein. The forme of their composition which I doe use is this: Take the ashes of the inward bark of Ashe, Palme, Oake, and the Vine-tree, Bean stalkes, *Esula*, quicke Lyme, gravil, *Axungia vitrei*, of each halfe a pound, Allom, and Roman Vitreol, of each 6 ounces, steepe all in 15 English pints of running water, which will be about 5 Scottish pints, mixe al in an earthen pot the space of 5 or 6 dayes, removing it every day with the baton of wood as you have heard, then put forth the water and save the grounds, and boyle it at a verie hot fire till it grow somewhat thick, at which time you shall adde unto it two drammes of *Opium* dissolved in Aquavite, it hath the virtue to pacifie the pain, and make the escharre more soft. Of this forme which was used by my M. *John Quintred* Doctor of Chyrurgerie at *Paris*, thus made, *Rec. Axungia vitrei lib. sem. salis gemme unc. 6, sublimati unc. sem. cineris sarmentorum & truncorum fabarum, an. lib. sem. aqua lib. 10, infundantur spacio 5. aut 6. dierum, & fiat capitellum in fine decoctionis, adde drag. 2 opii.* Of these which are composed by M. George Baker Chyrurgion to his Majestie, thus made: Take the ashes of the Oak and Vine-tree, stalkes of Beanes, and *Esula*, of each a reasonable quantitie, gravill, Vine-stone, *Axungia vitrei*, of each a little quantitie, steepe them all in water, with a little quicke Lime stone, whereof you shal make your capitall, passe it, and boyle it as the former.

Mr. *Jo. Quintred* his Cauters.

Mr. *william Clowse* his Cauters.

CHAP-

Chapter XVIII.

¶ Of certaine cautions in applying of Cauters, and on what parts they use to be put for divers diseases.

TVo Potentiall Cauter is applyed in divers parts of the body for divers pains and diseases, for the which great care must be had both for the nature and temperature of the person, and the nature of the part where they are applyed: for in strong rude people, lik as mariners, labourers, porters, Pioners and such like, sharp strong Cauters may be used. In delicate tender people, women and children, the Cauters must be more weake: as also people who be extenuat and lean, may not endure strong Cauters, because their bodies are membrainous which provoketh great dolour. In applying your Cauter beware of nerves, membraines, tendons and heads of the muscles, great vaines, and arteries. If the body be repleat, you shall first purge and let blood: they are applyed in divers parts of the body, but for most common in the head, armes, and legs. They use to be applyed in foure divers parts of the head, the haire being first rased, but most often in the fore-head, where the suter sagitall mœtes with the coronall, which part is remarked by *Albucasis* after this forme, the Chyrurgion must cause the sick person to put the point of his thumb upon the top of his nose, then extend his middle finger right line so farre upon his fore head, as he can judge which part shal be the just place where the cauter should be applyed, and must penetrate to the bone, which is good for flurions on the eyes, the Megrim, and other dolours of the head, the epilepsie, difficulty of breath. Ophthalmie, redness of the face pain of the teeth, eares, and Squinancy. We apply them behind and above the eares, in both sides of the head, at the extremity of the suter *Lambdoid*, taking good heede of the muscle *Cratophit*, for the more assurance of the which hold

Albu lib 1 cap. 2.

on the point of your finger fast on the part where you would apply the cauter, then the sick must close & open his mouth, by which means you shall perceive where the sayd muscle endeth, by the motion of the sayd muscle. Fourthly, we apply them in the neck. There is an Italian Mediciner that vaunteth himselfe to be the first author of applying of Cauters in that part; yet I have read, that, that part was observed a long time before by Hippocrates: this Cauter should be applyed betwixt the first and second vertebre, for inveterate fluxions and diseases of the eyes, for Cauters and distillations of the head, to evacuate and stoppe them from falling on the thorax, and some principall part; they are also put on the inner side of the arme, about the middest thereof, neere unto the vaines and arteries, but no wayes touching them: for assurance of the which, hold your finger on the part, cause the sick to move his arme, so shall he easily perceive if there be either vaine arterie, or nerve under it: we apply them on the leggs, within three inches to the knee, either in the out-side betwixt the two bones, or in the inside neere unto the vaine, and is good for the criticke, for interception of humor, which doe cause and entertaine Ulcers and pain in the legs and feet: They are also applyed in divers other parts of the body, to give issue out to the matter therein contained, or where there is hehement dolour or humor malignant, and fume vaporous, and in the emunctories to give issue to any vapour or humor, which must be done before the perfect suppuration thereof, as you have heard in the Chapter of Parotide.

Theo lib. 3. cap 45.

Bru. lib 2 cap 18

Hip lib de natura ossium.

CHAPTER XIX.

¶Shewing the way to apply Cauters rightly

TO apply Cauters rightly, the Chyrurgion must justly marke the place, either with the point of his finger, or drop of ink, then make a little emplaister the breadth of a

rij pence either of *Diapalma* or some astringent and sticking plaster, with a little hole in the midst of it, as you shall think meet for the greatnes or littlenes of the issue that yee would make, apply the plaster in such sort, that the mark of Ink appear in the midst of the hole of the said plaister, then apply your Cauter on the said hole; some doe wet this hole with a little spittle before the applying of the Cauter, so it shall work more easily, thereafter put another emplaster about it and bind it with a little thick compresse, letting it remain till such time it work the effect you require, which will be in four or five houres, if you think that the first Cauter hath not gone deep enough, apply another after the foresaid manner, which being done, take away the plaster and scarifie the escharre, and apply on it to separate the escharre or burnt part from the hole a little oyle of roses, turpentine, or butter, with a little *Iris* of Florence, or basilicon, som after the first emplaster is taken off, doe cut clean away the escharre with a bistorie. I do only scarrifie: thereafter apply a medicament for four or five dayes, in which time the escharre doth commonly fall away, and the humor taketh course to that part; which done, it must bee holden open till such time as the disease be whole, for which it was made to hold it open, we use a great pie, a little ball of Gold or Silver gilt, of the bignes of a small pistol bullet, som mak those bals of Rubarb, Woodbine, Bush, or Agaric; I my self doe use certain balls which last five or sixe moneths, and hath the virtue to draw and hold open, and are thus made. Take wax 1 dram, Verdegrease, Orpimeunt, and Hermodactyles, of ech 1 unc, Sublimat and powder of Cantharides of ech dim. unc. with a little rayson. I make little bals which may be kept for your usage, and use as the former, putting on the wound a woodbine leafe, with a compresse of clean linnen cloth in two doubles, tye it with a band and dresse it morning and evening, if it voyd much: if not, once a day: for such as travell, and may not ever get woodbine leaves, I do use Seare-cloath which lasteth five

or six weeks wiping it clean and using sometime one side, sometime another, and is thus made. *Rec. emplastrum triaformaci. lib. sem, ceræ albæ unc. 2. champhoræ unc. 1. litargiri, aurei pulverizati unc. 2. spicinardi unc. 1. olei olivarum unc. 1, misce omnia simul.* Melt all these ingredients, thereafter dip a round linnen cloth therein, then cut it in peeces, to serve for your use: as also it is good for cold humors, and Ulcers: Sometime we are constrained to continue those Cauters for a long time, if so happen every yeare once, it were good they were removed a little, either higher, or lower, or side wayes; so the matter will avoyd the better, for oftentimes the bords of the Cauters become callous and hard, so empasheth the much flowing of them. If you please not to renew the Cauters, you may consume such callosities by such remedies as ye have heard in Ulcers, with callositie, if in those Cauters or fountenels there be excrescence of flesh, which sometime groweth and weareth forth the bullet, it must be cured by such remedies as yee have heard in Ulcers, with excrescence of flesh: It happeneth sometimes after the Fountenell or Cauter beginneth to runne, there commeth inflamation and dolour in and about the part: for remedy whereof you shall apply *Ceratum refrigerant, Galeni, Populeon, Rosatum Mesues,* or some Unguent, or Cataplasme Anodyn: oftentimes when those issues doe run much and are not often handled and dressed, the parts adjacent become ulcered or excoriate by the acrimonie of that humor which floweth, which causeth great paine; for the cure wherof, you must annoynt the part with *Cerat Galen,* Pomad, or red desicative, untill such time the excoriation be whole. As for these that make a skarre like unto the Cauter Actuall, they be of divers formes, and are applyed in sundry parts of the body, for divers affections, as you have heard.

CHAP-

Chapter XX.

¶ Of Bathes and their Effects.

Bathing, as by the learned Herodotus is at large declared, is a washing and steeping of the whole body, for the better preservation and conservation of Mans health, and recovery of that which is lost, which was had in great use and custome amongst the Ancients, as among the Greekes, Arabians and Latines, and is also very much used and practised in all Nations in these our dayes, and is reckoned among the sorts of evacuations, a singular remedy: whereof there are two sorts, one naturall, and another artificiall. The naturall are said to bee such, as come and proceede naturally out of the ground, and are alwaies warme and hott of themselves, but yet are of divers sorts, qualities, and virtues, according to the diversitie of the places, from whence the water cometh and proceedeth, as if it come from Salt, Allom, Sulphur, Brasse, Copper, Gold, Iron, and such like. The Salt is good for pituitous, cold, and humide Maladies, Hydropsie, dolours, pains and Aches of the Belly, Stomack, Matrix and Kidneys, also it is good for all Catarres, Epilepsie, dolours of the bladder, head, stomack and eares, whites of women, and Scabbes, Generally through all the body, as is at large discoursed and set downe by Galen. The Alluminous are drying and heating, and is good for all cold and humide diseases and sicknesses, vomiting of blood, staying the hemorrhoides, the monethly course of women, aborting with childe, varices on the legges, hydropsie, maligne ulcers, rotten, waterie tumors, for all sorts of vomiting. The Sulphurous are drying in the fourth degree and heale the parts nervous, which are cold and humide, soften the hard parts, appease dolour, and comfort the stomack and spleen, they are good for the stone, strangury, for all cold and humide Maladies, Palsies, Hydropsies, Apopleries, yet they

Herodotus.

Antillus lib. 1. de remedi.

Tralian. lib. 1.

Gal. de sanitate tuenda.

must be moderately used. Those, whose minerall is iron and steele, are cold, stipticke and dry, good for hott and humide Maladies, as Gouts and dolors, of the articles, debilitie, and sofnesse of the stomacke and milt, apostthumes in the eares, monethly course, flure of urine, hemorrhoides, out-comming of the Fundament, and all ulcers in the bladder, as sayth Fuchius. The Copperis doth heate, resolve, cleanse, consolide; is good for colde and humide diseases, dolors of the Guts, maligne ulcers, and members contused; also for maladies in the mouth, inflamation in the throat and amigdalles, all sicknesse of the eyes. Those that have their minerall Gold, are hott and drye, and good for the collick volvulus, fistulaes, Gowt, maligne Ulcers, cold stomacks, the stone, rupture scabbes, leprosie, diseases of the eyes, stink in the mouth, palpitation of the heart, as saith Fuchius. The Lead being the minerall, they are good for all maligne Ulcers, Cankers, Fistulaes, divers affections of the Skin, Kidneys and Bladder, whites in women, hemorrhoides. There are some mixed with divers of these together, as in *Lorraine*, *Burgundie*, and divers parts of *Almaine* and *Italie*, of the which *Wickerus* and *Fuchius* have amply written. The artificiall bathes are artificially made, by imitation of the naturall, to supply the want thereof, as of running water and mixtion of one or more of these minerals, diversifying and appropriating them according to the disease, sometime to heate Iron and Steele red hott, and slake it in the water, and so it participateth the virtue, Sometime by mixing of Yearbs, Flowers, Roots, simply; sometime the decoction of them; also of Milk or Wine, according to the diseae, as to appease dolor, to soften, to open the Conduits, to lose or binde in all these sorts. Sometime we use water called *Balneum aquæ dulcis*, of the which come great effects, so that it be alwayes warme, it is good for all outward affections of the body, it heateth, appeaseth dolor, openeth the pores of the skinne, tempereth and evacuateth ill humors, provoketh the purgations and hemorrhoides

Lib. de meden morbis.

Lib. Citato.

Gal. de sanitate tuenda lib. 3 Hip Celsus, Fuchius.

rhoides in women, discusseth and digesteth the excrements, softneth the hard parts, humecteth all the parts of the body, provoketh sleepe, corroborateth the ventricle, helpeth the concoction and naturall heate, good for all affections of the matrix, inflamation of the lights, for all intemperie, except the humide, dolor of the head and eyes, maladies of the lights, lassitude of the stomack and backe, for all fluxions and members ulcered, for all scabbes and vices in the skinne of both old and young, it softneth the articles, clarifieth the voice, moveth urine, bringeth the flesh and skin in good temperature, it mundifieth and is good for hectick fevers and phrensies, as sayeth Hippocrates, it discusseth flatuosities, and sharpe excrements, the water must not bee too hott, for it healeth and closeth the pores, and so leteth the excrements under the skinne to come forth. It must be done with great discretion, otherwise it will be offensive, as you may perceive by this Epigram.

Balnea, vina, venus, corrumpunt corpora nostra;
Restituunt eadem balnea, vina, venus.

CHAPTER XXI.

¶ Of Cautions, to be used in Bathing.

NOtwithstanding the great benefit, which commeth thereof, it must bee moderately used, for the excessive using hereof offendeth the heart, causeth sincope, taketh away the appetite, loseth the joynts, resolveth the naturall heate, provoketh neesing, moveth humours and offendeth the Ulcers, as saith Galen. The bathe must be made in this sort: first there must be a vessell of the length of the party, of two foot broad, of height two and a halfe, or three, it must bee almost full of water. After hee hath remained a while in the bathe, fill it with warme water, cover the vessell above with a coverlet, Sheet, or some such like thing; having remained therein as long as is needfull, the party shall come

Gal. lib. de sanit. tuend.

come forth of the bath, and dry himselfe with hot clothes, put a hott Sheet about him, and cover all his body warme, put him in bed, cover him with light warme clothes, so hée shall sweat very easily: after hée hath sweat one hour or longer as he may endure, then take the wet Shéet from him and drye him with warme Napkins, chiefly the head under his armes, breast, and roots of his thighs, then let him rest in his bed an hour or two, till héebée reasonably refreshed, then give him a drye cleane warme Shirt, and let him kéep his chamber warm all that day, some doe think it not méet to wash the head, grounding themselves only upon these verses, *Sepè manus, raroq́, pedes, caput verò nunquam, esse lavandum*: if the party bée strong, hée may bathe himselfe in like manner the afternoone, and so continue thrée or six dayes, as shall bée thought expedient, entring sometime once a day, otherwhiles twice, adding to the bathe such sorts of dregs or hearbs as shall bée most expedient, and wholesome for the patient, and his disease: the common sort use commonly in all bathes, these hearbes following, chiefly in the Spring and Summer when they are in virture, Mallowes, Marsh-mallowes, Violets, Parietarie, Fumitarie, Fenill, *Angelica*, Dragon or Buglosse, Plantain, Patience, Agrimony, Bear-foot, Hearts tongue, Betony, Roses, which all (or some of these) may be sodden a little a fore they be put in the bathe.

Henricus Kantzovius.

Mero lib de remed. foris adhibendis.

CHAPTER XXII.

¶ Of things to be observed before yee enter into the Bath, in, and after Bathing.

Antillus.

Hip. apho. 51. Bru. lib. 1. de balneis.

Johan. Franc. de balniorum utilitate.

FIrst as counselleth *Antillus*, a very ancient mediciner, the party should bee fasting, or else foure houres after meat, for, as sayth Hyppocrates, a man must not enter in having his belly full of meat and drink, so it is the meetest time in the morning, or foure houres after noon. Next, ye must beware that no noble part bée offended, nor much debilitated, for if the humor bee moved by the bath, the pores

and

and wayes dilated, the humor goeth easily to the part offended. The party must also before hee enter, bee purged, no weake body should enter therein. While hee is in it, hee must keepe himselfe warme, the Bath must bee meanly warm, neither too hot nor cold; for if it bee too hot, it closeth the pores of the skinn, letteth the forth-comming of the excrements, and heateth the blood. Hyppocrates counselleth to bee silent in the bath and in no wayes commoved, if hee war feeble, he may take a little wine or a sop of bread dipped in it, or some Prunes to quench his thirst, as counselleth Cassius in his Problemes, let him drie the sweat of his face and temples and behinde the eares. He must not stay so long the first day, as the rest; Herodotus counselleth to remaine halfe an Houre at the first, afterwards an houre or two. After the comming forth, the party must bee well dryed cheifly his head, as counselleth Hyppocrates, for humidity is as great an enemy to the head, as cold, hee must have the passage open to the naturall excrements, and not eate for two houres after hee come forth of the bath.

Hippocrates.

Cassius prob.

Herodotus.

Chapter XXIII.

¶ Of Frictions, and their effects.

Of rubbing and frictions, Galen hath amply written in his bookes *de tuenda sanitate*, as also Ætius, Paulus, and Oribasius, with sundry other learned men, who have used them for divers occasions, and in divers manners, sometime with oyntments and oyles, which was in great use amongst the Romans and Greeks. Those who were old used rubbing with oyle of *irinum, camomelinum & nardinum.* Hyppocrates commendeth the same very much for sayth hee, it hath the force to bind, loose, increase flesh and diminish the same, for hard rubbing doth loose and molifie, much rubbing diminisheth the flesh, meane rubbing doth augment and increase flesh.

Galen. Paul. Ætius. Oribasius.

Hippocrates.

They

Henricus Rantzovious.

They are uſed for divers other occaſions, as yee have heard, namely, to looſe and open the pores and conduits of the skinne, to make thinne humors, and avoid all obſtructions, for the diverting of fluxion from any part of the body, and eſpecially from the head. They muſt bee done with a cloth or ſponge, firſt ſoftly and eaſily, ſometime to continue untill the fleſh ſwell and become red, and may bee done at all times, and chiefly in the morning, beginning at the lower parts, ſo to aſcend to the head, which is accounted generall rubbing. If any particular part be diſeaſed, rubb onely the place affected whereby in ſundrye diſeaſes divers effects are wrought

THE

THE TENTH BOOKE.

Of Antidotaries Chyrurgicall;

Which containeth XIV. Chapters, whose Contents be these; By PETER LOVVE *Scottish-man.*

Chap. 1. Of medicaments in generall.
2. Of medicaments Anodines.
3. Of repelling medicaments.
4. Of medicaments attractives.
5. Of medicaments resolutives.
6. Of remollient medicaments.
7. Of suppuratives.
8. Of mundificatives.
9. Of incarnatives.
10. Of Cicatrizants.
11. Of medicaments agglutinative.
12. Of medicaments Catereticks.
13. Of medicaments that stanch blood.
14. Of Oyles, Unguents, and Plaisters.

CHAPTER I.

¶ Of Medicaments in generall.

IN this Book we will speake of diders sorts of medicaments commonly used by the Chyrurgions, in the which we shall first shew the definition and division of every one severally, both simples and composed, whereof they proceed and take their originall, as of plants, trees, beasts, earth, or sea. Of the parts of plants,

as

as of the Leaves, Flowers Bark, Root, Seed, Gum, Juyce or Oyles. Of Beasts, as of Vipers Serpents, Cantarides, Frogs, Cats; or of the dissimulare parts of Beasts, as the Liver, Lights, Heart, or Brains; also of the Bones, Marrow, Grease, Blood, Milk, and Flesh; likewise of the excrements, as of the Haire, Hornes, Dung, and such like. Of Minerals or earth, as Stones, Mettalls, Orpiment, Sandaracha, Sulphur, Cadmia, Litharge, Quick-silver, Argent, Calcites. Of the Sea and Waters, as all kinde of Salt, Sponges, Asphaltrum, Nitre, Amber, Bitumen, Pissaphalen, Garinum, Alcionium. The compounds may be made of these simples divers wayes, as Oyles, Unguents, Liniments, Cerates, Cataplasmes, Emplasters, distilled water, Fomentations, Vaporations, Suffumigations, Gargarismes, Bathes, and such like: but for the better understanding of this matter, we shall shew the degrees of Medicaments, and next the measure and weight. There are four degrees of medicines, hot, cold, drie, and humide, and have four qualities, as, Heating, Cooling, Drying, and Humecting, but not manifestly, and is so little, as scarcely known, by the sence. The second degree is Heating, Cooling, Drying, Humecting manifestly, as is apparent to the judgement. The third degree is Heating, Cooling, Drying, and Humecting, offending the sences, but not extreamly. The fourth degree is Hot, Burning, and maketh a scarr and corrupteth the sences, as quick-Lyme, all caustickes Actuall and Potentiall, Cold, which mortifieth and obtundeth the sences, as *Opium*, and all stupefactives, or drie, which burn like Cauters, actuall: humide is not so vehement, as the others, for humiditie is not of such force, except it be joyned with cold, of the which Galen hath made no mention. After this manner the Medicaments were put in degrees, before Galen, as reporteth Dioscorides.

4. Degrees of medicaments.

Galen.

Dioscorides.

Medicaments temperate in Hot and Cold.

Temperate things.

The Medicaments that are temperate in Heat and Cold, are Faba, lens, hordeum, fructus & folia brusci, species capillorum

pillorum veneris, axungia ſuilla, oleum dulce, cera, lac, vitellus ovi, litargirus, adjantum, cadmia, gliſiti, cucurbita, fructus, folia bruſſi, cortes citri, &c.

Medicaments hot in the 1 degree.

Ariſtolochia rotunda, althæa, amigdalæ dulces, jujubæ, caſtaneæ, ficus, braſſica, abſinthium, apium, eupatorium bugloſſa, borago, mercurialis, morſus diaboli, ſalvia, ſcolopendria, ebulus, ſpicanardi, aloe, triticum, fennigrecum, ſemen Lini, mel, butyrum, ſacharum, ſerum lactis, melilotus, vinum novum, ſenecio, ſambucus, ebulus, agaricum, oribus ænulum.

Medicaments hot in the 2 degree.

Guajacum, Cyperus, Calamus aromaticus, Peonia, Nux Indica, nux muſcata, amigdalæ amaræ, enula campana, branca urſina, conſolida major, ſanicula, dens leonis, eruca, gariophillata, lavendula, cardamomum, marrhubium, mentha domeſtica, petroſelinum, ſcabioſa, feniculum, thus, mirrha, maſtiche, ſarcocolla, bryonia, betonica, rubia tinctorum, fumeſtarie, gallitricum, geniſta, lupulus, æſiippus, meliſſa, mentha, ranunculus.

Medicaments hot in the 3 degree.

Gentiana, Ariſtolochia longa, Polipodium, Pyrethrum, raphanus, ſatyrion, acorus, gingiber, iris, apium riſus, artemiſia, cherefolium, cupreſſus, helleborus, ſcrophularia, naſturtium, origanum, ſalvia, ciclamen, dictamus, opopanax, roſmarinus, galbanum, Juniperus, aniſum, hiſſopus, abrotanum, ſalyrium, roſmarinus, ſtaphiſagria, apopinax, rhapenticum, fæniculi, oſſerum, aniſum, betonica, colocynthus, coſtus, liguſtrum, perforata, ruta, ſabina, galbanum, iris radix.

Medicaments hot in the 4 degree.

Allium, Cepa, Tithimalius, Sinapi, Euphorbium, Piper, oleum petroleum, pyrrethrum, Anacardus, ſatureia.

Medicaments cold in the 1 degree

Caſtanea, Malua, Granata dulcia, Spina alba, Gramen, hepatica, lilium, convallum, hordeum, atriplex, pira, poma, viola,

viola, rosa, cotoneum, malum, granatum.

Medicaments cold in the 2 degree.

Pomum persicum, Cucurbita Cucumer Asininum, Cynoglossum, primulaveris, pulmonaria, mala granata fetida, psillium, balaustia, acacia, plantago, pomum persicum, endivia, lenticula palaustris, nymphæa.

Medicaments cold in the 3 degree.

Virga pastoris, Acetosa, Endivia silvestris, Tormentilla, portulaca, vermicularis, semper vivum, solanum hortense, fragraria, ribes, camphora.

Medicaments cold in the 4 degree.

Papaver, Opium, Cicura, hiosciamus, mandragora.

Medicaments moist in the 1 degree.

Enula campana, Malua, Buglossum, Borago, Spinachiæ, amigdales, jujubæ, nux Indica, semen lini, butyrum, viola, pisa.

Medicaments humide in the 2 degree.

Lilium Convallum, Lenticula palaustris, Nimphæa, Lactuca, branca ursina, cucumer asininus, portulaca, primulaveris, eruca, dactili, psillium, ammoniacum, atriplex, pulmonaria, æringium, cucurbita.

Medicaments humide in the 3 degree.

Satyrium, Endivia silvestris, Fragaria, Cucurbita, brassica.

Medicaments humide in the 4 degree.

Argentum vivum.

Medicaments drie in the 1 degree.

Feniculum, radix Althæa, morsus Diaboli, Sambucus, mala granata, Ebulus, castanea, hordeum, fenigrecum, camomilla, mellilotum, crocus, thus, argenti spuma, sarcocolla, faba, fumus terræ, tormentilla, acetosa, mercurialis salix, granum Schænanthum.

Medicaments drie in the 2 degree.

Aristolochia, Guajacum, Cyperus, Calamus Aromaticus, Cinamomum, Anethum, Abrotanum, Cheræ folium, Consolida major, Opium, Centaureum, virga pastoris, Cynoglossum,

Cynoglossum, Sanicula, dens leonis, Hissopus, Genista, Marrhubium, Petroselinum, Scabiosa, Pimpinella, Cardamomum, Amigdalæ amaræ, Millium, Nux Indica, Nux Muscata, Myrrha, Orobus, Mel, Anethum, Cyperus, cupressus, custula, endivia, faniculum, lavendula, garriophyllata, lupulus, mulissa, mentha, ficus, mala granata, mastick.

Medicaments drie in the 3 degree.

Lavendula, Cyclaminus, Acorus, Raphanus, pyretum, Gentiana, Galanga, Serpentaria minor, Absynthium, artemesia, Apium Risus, betonica, chelidonium, cicuta, helleborus, scrophularia, lyguſtrum, nasturtium, origanum, pentaphillon, Rosmarinus, Sabina, Anisum, nigella, Agnus castus, allium, cuminum, Sanguis Draconis, galla, abrotanum, perforata, pulegium, ruta, tormentillæ, serpentaria, acetosa, assarum, creta marina, acetum, alloe, Milium.

Medicaments dry in the 4 degree.

Piper, tithimallus, anacardus, satureia, oleum petroselinum, Sinapi, Euphorbium, allium, nasturtium.

¶ Of the Weights and Measures of Medicaments, used by the Chyrurgians.

Lib. Signifieth a pound, that is to say, 12 ounces.
Unc. Signifieth one ounce, which is, 8 drammes.
Drag. Signifieth a dramm, which is 3 scruples.
Scr. Signifieth a scruple, which is 20 grains of wheat.
Gra. Signifieth a grain of wheat.
Denarius and Drachma is all one.
M. Signifieth *Manipulus*, and is as much as one can hold in his hand.
P. Signifieth *Pugill*, which is as much as one can take betwixt the thombe and the two formost fingers.
Cyathus. Signifieth so much as one may easily drink at one draught.

Yet

Yet for as much as the perfect knowledg in compounding of medicaments, which are ordinarily used by the Chyrurgions, cannot well be known without the knowledg of the quantitie of both weights and measures; so for the better instruction in that matter, I will briefly declare to you as they are ordinarily marked by the Phisitians and Chyrurgions in this our time.

Libra hath this mark ——— ℔
Semis ——— ß
Uncia ——— ℥
Quarta ——— ℞
Dragma ——— ʒ
Scrupulus ——— ℈
Grana ——— G
Ana of each one a little much, marked thus ——— A
Libr. semi. ——— ℔ ß
Semuncia ——— ℥ ß ——— and so of the rest: but because there be divers sorts of diseases and sundry symptomes which happen in them, for the which I shall set down divers sorts of remedies which are used by the Chyrurgions, as well for the help of the symptome, as recoverie of ill diseases, like as Medicaments, Anodines, Repercussives, Attractives Resolatives, Emolients, Suppuratives, Mundificatives, Incarnatives, Siccatrizants, Agglutinatives, Cathereticks, Septicks, Caustick, and such as doe restraine flux of blood; of all which I will beginne at Anodines, and so prosecute the rest.

Chapter II.

¶ Of Medicaments which appease dolour called *Anodins*.

Gal. lib 2. de locis affect. Gal. 12 meth. & de palpitat.

DOlour is a grievous thing, like as pleasure is a joyful, the which is cured first by knowing the cause, next by the ablation of the same. The cause of dolour is either distemperature,

temperature, or solution of continuitie, which is either hot, dry, or humide. The hot causeth vehement pain. The dry moveth pain, but not so vehement. The humide maketh almost no pain at all. The medicaments Anodin called by the Greeks *Paogonta*, are those that have force by their temperate heat to appease the dolour, of the which some be Propers, some be Impropers. The proper Anodins are those which by a contrary quality open and take away the cause of dolour, like as *oleum laurinum* in cold dolours, violate in hot dolours, *hydelium* in dry dolours. The Anodins improper, are those which not by themselves, but by accident appease the pain, and are called by the Greeks *Narcotickes*, the which stupifie the feeling of the part and make it more heavie: The office of the proper Anodins is to evacuate, digest, rarifie, and extenuate the evill humors which be sharp, thick, vapourous, and cold. *Gal. li. 5 ca. 18. simp.*

The Anodins proper, are either Simple, or Composed.

The simple, like as oleum amygdalarum dulcium, butiri, lini, ovorum, hyperici, axungia galline, anatis, anseris, folii malve, violarei, parietarie, medulla vituli, & cerui, aqua calida, semen lini, camomilla, fenugrecum, mellilotum, folia hyoschiami, ol. olivarum & anethi.

The Compound Anodins.

The Compounds of these are oiles, unguents, liniments, and plasters, fomentations, cataplasmes, and such like, which may be made according to the varietie of the disease.

Anodines hot.

Oleum Anetinum, Camomellinum, Amygdalarum dulcium, lumbricorum, lini, vulpinum, mellinum, triticeum, de vitellis ovorum, sambuceum, ceræ, terebinthinæ, irinum, hyperici, laurinum, juniperinum, sulphureum, piperum, masticinum, rosmarinum, petrolium: Of these all mixt together, or some Ware mingled with them, yee may make liniments, unguents, as oxicrocium nicolai, de althea, resumptivum, ænulatum sine mercurio, martiatum, arragon,

Arragon, Agrippæ cerati filii Zacatie Filagrii, Cyroneum emplastrum, ceratum Andromachi, fotus Aquæ Vitæ, panus calidus in ea mersus & admotus, ista valent in sedatis doloribus que procedunt a materia frigida, unguentum comitissæ is proper for the matrix, martiatum for the nerves, baccæ lauri for the belly.

Linimentum callidum.

Hot liniment

Rec. Oleum Amygdalarum Dulcium, Sambucinum, an. unc. 2, Ladani unc. 1, Croci drag. 1 se. Muscilaginis seminis Altheæ, & Lini extractæ in qua Melliloti, unc. 2, Cere unc. se. seminis Anethi, unc. 1 se. succi Caulium unc. 3, Bulliant ad Succorum consumptionem, fiat linimentum.

Aliud.

Hot cerat.

Rec. Picis Burgundiæ, unc. 3, Theriacæ & Mithridati, an. unc. 1, pulveris seminis Anisi, Dauci an. drag. 1 se. olei Irini & Camomillini, an. unc. 1, fiat ceratum.

Cataplasma.

Cataplasm.

Rec. Florum Melliloti in sapa coctorum, unc. 4, Ovorum vitella 4 ad Duritiem in aceto cocta, olei anethini & Camomillini, an. unc. 1 se. fiat cataplasma.

Aliud.

Rec. Baccarum lauri, Juniperi pulverisatarum an. drag. 3. coquantur in vino veteri & oleo Rosato optimo, fiat cataplasma.

Anodina frigida.

Cold anodins

Oleum Omphacinum, Papaverum, Rosarum, Violarum, Liliorum, de Hyosciamo, unguentum Populcum, de Lytargiro refrigerans, Galeni, Santellinum, Muccilago Psilii, Cydoniorum, Opium, cum Croco, emplastrum de Mineralibus, unguentum deficcativum Rubeum.

Compounds.

Cold compound liniments.

Rec. Ceræ albæ unc. 5, Olei Camomillæ, & Rosarum an. unc. 2, Ovorum lutea 8, succi Coriandri & Papaveris albi an. unc. 2, Croci & Opii an. scr. 2, misce cum Oxycrato, fiat linimentum.

Aliud.

Aliud

Rec. Ovorum Vitella 2. foliorum Violarum unc. 2. opii drag. 1. croci scr. 1. fiat linimentum.

Cataplasma,

Rec. Medullæ panis albi, in lacte vaccino infuse, lib. se. farinæ fabarum, hordei & orobi, & lentium, an. unc. 1. omnia dissolvantur, foliorum hyosciami coquantur ad crassitiem, deinde adde olei rosarum, violarum, oxyrhodini an. unc. 1, opii, croci an. drag. 1. fiat Cataplasma. Cold Cataplasm.

Aliud.

Rec. Foli hyociami recentium M. 2. coque cum hydromel, admoveantur parti inflamatæ, cum pauca farina hordei.

Unguentum.

Rec. Unguenti rosati, unc. 6. populeonis unc. 2. mucilaginis, seminis psylii & cydoniorum an. unc. 1. se. fiat unguentum. Cold unguent.

Aliud.

Rec. Seminis psylii, olei rosacei, an. unc. 2. ceræ albæ, unc. 1. fiat unguentum.

¶ Of Narcoticks, which are Anodins Impropers.

Like as in taking away paine there are three things to be observed, to wit, the cause of the pain, the pain it selfe, and the part where it is: for the which Galen hath set down three kinds of Medicaments. Of the which some take away the cause, some the pain and not the cause, others neither the cause nor pain, but onely the feeling of the part, & by accident the pain. Of the which some be simples, others composed. Galen forbideth the usage of such except the body be purged, and in no wise in weak parts and neare the noble part, for the great accidents which often doe ensue by the pain. *Tral. li. 8 ca 6.* *Gal lib. 3. de facul sim c. 18.* *Gal. li. 13 met.*

Narcotickes Simples.

Mandragora, Hyosciamus, Papaver, Lactura, Succus

opii, sempervivi, solani, camphora, oleum in quo torpedo viva, fuit extincta, cicuta.

Composita.

Cold compo. sed narcoticks

Philonium, Romanum, Pillulæ de Cynoglosso, Oleum hyosciami, papaveris, mandragoræ quibus opii, nonnihil diluitur.

Unguentum.

Unguent narcotick.

Rec. Unguenti populeonis, olei violacei, an. unc. 1. seminis hyosciami, corticis mandragore opii, an. scr. 1. ceræ quantum sufficit, fiat unguentum.

Chapter III.

¶ Of Medicaments Repercussives.

Gal li.5 ca 18. simp.

Nicol. Alexan.

The medicament Repercussive called by the Latines *Repercutiens* or *Repellens*, is that which by the cold qualitie putteth back the humor, or else by the astriction corroborateth the part, or by one or both letteth the fluxion of humors, of the which there are divers kindes, some are cold and humide, others cold and astringent, some hot and astringent, and are either simple or composed.

The Simple with small or no astriction, like as rosa, endivia, lactuca, acetosa, umbilicus veneris, portulaca, viola, nenuphar, aqua frigida, serum lactis, coriandrum, arnoglossum, trifolium, parietaria hyosciamus, poma, pira, albumen ovi, cauda equina, caprifolium, farriora, virgula pastoris, bursa pastoris, plantago, solanum semper vivum, melones cucurbita, citruli, lens palustris psylium, omphacinum, cydonia, myrtili, malicoria, balaustia, mandragora, acacia, sanguis draconis, papaver, opium, bolus armenus, cerusa, terra sigillat. antimonium, plumbum ustum & non ustum, consolida major, farina lupinorum & oribi, vitriolum, tapsus barbatus, nux cupressi, olivi folia. Repercussives hot

and

marciatum, Iriatum, de vigo, de melliloto, Philippi philagrei, unguentum resumptivum, arragon, enulatum, neapolitanum, oxycrosium, mesuæ, agrippæ, gummi ammoniacum, dellium, apeponax.

Unguentum resolvens materiam calidum.

Rec. Olei Camomillæ, Liliorum & violarum, an. unc. 1 butiri recentis sine sale drag. 3 cere quantum sufficit, pulveris, camomellæ, drag. 1, fiat unguentum. Unguent resolved hot.

Unguentum resolvens frigidens materiam.

Rec. Olei Liliorum, seminis lini & erini, an. unc. 1 se. emplastri de musilaginibus de mellilo, an. unc. se. pulveris ireos betonicæ, an. drag. 1, fiat unguentum. Unguent resolved cold humors.

Cataplasma resolvens.

Rec. Farinæ fabarum, lini & fenigreci, an. unc. 1 diffonantur & coquanter in oxycrato ad pultis crassitiem, adde pulveris florum camomillæ & melliloti, an. drag. 1 ovorum vitellos, 3 croci drag. 1 olei camomillæ & aneti, an. drag. 3 butiri recentis, unc. se. fiat Cataplasma. Cataplasme resolved.

Ad flatulentum tumor.

Rec. Olei anetini, & Liliorum, an. unc. 2 Olei rutæ & laurini, an. unc. 1 succi rute, unc. 2 bulliant ad succorum consumptionem, ceræ quod sufficit vel loco succi aduce tantillum aquatviæ ad penetrationem. To resolve wounds tumors.

Ad hydropicos & equoses humores.

Rec. Stercoris Columbini, Caprini & vaccini, an. P. 1 florum rutæ Camomillæ recentium seminis Lini & Anethi an. P. 1 ferementi veteris, unc. 2 Nitri drag. 2 bulliant omnia simul in aqua decoctionis Apii, deinde pistentur & super lanam succidam bene carpinatam cataplasmatis instar extendantur, deinde calido ventre, hydropico aut hydrocele applicetur. To resolve a watry tumor.

CHAP-

Chapter VI.

¶ Of Medicaments Emollients.

The Medicaments Emollient are called by the Greeks *Malactica*, and by the Latines *Emollientia*, the which have the vertue to soften the hard parts, and bring them to their naturall estate, of the which some are Common, and some Proper.

The Common,

Gal 5. simpl. Are those which have the vertue to soften the hard parts, which is done either by congelation, extenuation, or dryness.

The Proper,

Are those which soften the hardnesse done by congelation, and are meanly hot, or else dry or humid, for if the hardnesse be done by congelation, the medicament must be hot and dry. If it be draught as often chaunceth in schirres, the medicament must be hot and humid, alwayes whether it be hot, humid, or dry, it must be more moderate than the attractive, and lesse than the supurative. In the usage of the remedies two things are to be observed, the one, if any of the noble parts be hard, we apply no mollients except they be mixed with the astringents, neither they be used in tumors scirrous, the which are either simple, or composed.

Gal. 13 meth lib 5 sim. c. 1

The Simples.

As Medulla cervina, Equina, Canina, Vitulina, Vaccina, Ursina, Hædina, Leporina, Humana, Porcina, Gallina, Caprina, Leonina, Anserina, Anatina, Vulturina, Butyrum, Gummi amoniacum, Bdellium, Apopanax, Galbanum, Sodanum, Terebenthina, Resina, Colophonia, Pix, Herbæ remollientes, Malua cum toto, violaria, Parietaria, Mercurialis, Beta, Narcissi radix, Radix brioniæ, Cucumeris silvestris, Semen lini, Radix liliorum, Altheæ, Atriplex, & fenugreci, Ficus pinguis, Hordei & tritici farina, Caput & pedes arietis cocti, Cum pelle in aqua vel lacte. Here you must mark that the marrowe

row and grease of all kinde of animalls, which are of the high kind, are more hot than the females and Eunuches; and that of wild beasts and fowles, is more hot than the domestick or tame.

Composita emollientia.

Oleum Liliorum, Lumbricorum, Amygdalarum dulcium, de lino, camomillæ, vulpinum, juniperinum, oleum vetus, althea, ceratum filii sachariæ, unguentum agrippum, resumptivum, nicolai, diachilum magnum, cum gummis, triapharmacum, de musilaginibus, de althea, ceratum philagrii, oxycroceum, ceroneum, de vigo sine mercurio, oleo liliorum & irino dissolutum, hydrolium, Compound remedies resolved.

Emplastrum remolliens.

Rec. Emplastri de musilaginibus & Diachilon communis an. unc. 2 emolliantur cum oleo liliorum, fiat massa emplastri, adde pulveris Ireos & sulphuris parum. Softening plaster.

Aliud.

Rec. Cerati Filii Zacharæ & philagrii an. unc. 3. unguenti vigonis sive mercurio, emplastri de melliloto & diachilon ireati an. unc. 1 se. amoniaci in aceto dissoluti unc. 1 pulveris seminis urticæ drag. 2 misce cum unguento de althea, & oleo camomillæ, fiat ceratum, & valet ad tumoris gutturis, parotidis & aliarum parvum. Softening Cerat.

Emplastrum remolliens & resolvens.

Rec. Unguenti de althea unc. 1 emplastri de musilaginibus & diachili iriati an. unc. se. emplastri oxycrociæ, melliloti, & ceronei, an. drag. 2 malaxentur cum oleo liliorum, camomillæ, & parum ceræ si addideris amoniacum, bdellum major vis erit. Resolving plaster.

Cataplasma emolliens.

Rec. Farinæ hordei unc. 1 foliorum caulum coctorum & præparatorum manipulos duos, vitellos ovorum duos, olei liliorum quantum sufficit, fiat cataplasma. Cataplasm resolving.

Aliud.

Rec. Furfuris macri triturati manipulum unum, amoniaci in oxymellite dissoluti unc. 2 misce & fiat cataplasma.

CHAP-

Chapter VII.

¶ Of Medicaments Suppuratives, or maturative.

The Medicaments suppurative, or maturative, called by the Greeks *Peptica*, by the Latines *Maturantia*, are those, which by their naturall heat seeth and bring the blood and humors superfluous into matter; of the which there is two sorts, some be implastricks which by closing of the pores augment the naturall heat, so that the matter being retained, maketh generation of *Pus*; the other kind is hot according to the proportion of the naturall heat of the part affected, of the which there are simples and composed.

Hip. 6. epidimorium.

Simples.

Like as Aquæ Focus modice calens radix Althea, Liliorum capita, Violarum, Malua, Acetosa, farina Triticia, Hordeacea, volatilis Fenugreci, medulla panis tritici, Fermentum vetus, adeps Porsinus, Vitulinus, Vaccinus, Butyrum, Pix, Resina, semen Lini, Fenugreci, Buglossi, radix Brioniæ, Cepæ, branca Ursina, radix Cucumeris Agrestis, Senecio, Buglossum, bis Malva, Parietaria, Ficus, Passulæ, Cepe, Cielaminis, as also all medicaments which are of temperature hot and humide, being mixed with medicaments emplastrick substance that may close the pores, Poma, Malva cocta, vitellus Ovorum, mel Crudum, Amoniacum, Galbanum, Laddanum, Thus, Styrax.

Composita.

Oleum Liliorum, Ol. Ovorum, Butyri, Hyperici, Lumbricorum, Hypericonis, Resina, unguentum Basiliconis utrumque, Diachilum magnum, commune parvum & album, Macedonicum, triapharmarum Galeni, de Muscilaginibus, unguentum Resumptivum, emplastrum de Fermento, Democriti, Macedonicum.

Cataplasma suppurans.

Suppurative Cataplasmes.

Rec. Farinæ Hordei, Tritici, an. unc. 1. Mellis rosati & violati, an. unc. se. cum Ovi vitello, fiat Cataplasma.

Alind.

and astringent are those, Consolida major, absynthium, centaureum, marrubium, cardamomum, cyperus, calamus aromaticus, folia cupressi, farina lupinorum, & orobi, sal, alumen, vitreoli species, and Sulphur, of these simples you may make compounds.

The Compounds.

Oleum rosarum, Omphacinum, Absynthium, Olivarum, Cammomillinum, Masticum, Mandragoræ, Papaveris, Cydoniorum, Myrtilorum, unguentum Citrinum, Populeum, album Rasis, desiccativum Rubeum, ex litargyro, Santellinum, Rosatum, Bartholomeum, refrigerans Galeni, Pectorale, album Campheratum, aqua Rosarum, Oxycrocum, Diamoron, syrupus Rosarum, Violarum, Aqua, in qua Verbena fuit decocta, Cerussa, unguentum Somniferum, empl. Diacalcitheos Triapharmacum, Citrinum.

Linimentum repellens.

Rec. Muccilaginis seminis Psilii & Cidoniorum in aqua Rosarum & Plantaginis extractæ unc. 1 pulveris Santali albi, Rosarum Rubrarum, seminis Plantaginis, an. drag. se. cum pauco cerato refrigerantis Galeni & oleo Rosaceo, fiat linimentum. Linement repercussive.

Aliud.

Rec. Olei Rosati & Omphacini, an. unc. 1 unguenti Populeonis & Comitissæ, an. unc. se. agitentur simul in succo Plantaginis & Solani ad Succorum consumptionem.

Ceratum repellens.

Rec. Unguenti Rosati drag. 6 Santali Rubei drag. 5 Santali albi & Citrini, an. drag. 2 se. Boli armenici drag. 3 Spodii drag. 2 Camphoræ drag. 1 ceræ albæ unc. 2 olei Rosati lib. se. Cerat repercussive.

Cataplasma.

Rec. Muccigilanis Psilii & Cidoniorum in aqua vel succo Plantaginis, & Opii extractæ unc. 3 farinæ Hordei unc. 2, fiat Cataplasma. Cataplasm repercussive.

Aliud.

Rec. Succi Oxalidis, Oxylapathi, an. unc. 4 farinæ Hordei, unc. se. coquantur, & fiat Cataplasma.

Chapter IIII.

¶ Of Attractives.

The medicaments Attractives which the Greeks call *Electicon*, by the Latines *Attrahentia*, are contrary to the Repercussives. For so much as they draw from the Centre to the circumference, and are of temperature hot, and substance thinn, to the end they may peirce more easily; and may be divided into three sorts. The first draweth by the naturall heat, the second by putrefaction, the third by an hidden property; some add the fourth kind, *per fugam vacui*: like as in ventosing, boring, sucking, by bandages, frictions, horseleaches, disicatories, medicaments, caustick, the which indeed be not properly called medicaments Attractives. Of the foresaid there are two kinds, viz. Simples, and Compounds.

Gal. 5, simpl.

Simples.

Like as Sabina, Cæpa, Aristolochia, Tapsia, Hermodactylus, bryonia, omnes titimallorum species, radix lilei, abrotanum, urtica, serpentaria minor, gentiana, asphodellus, bdellium, apopanax, gummi rutæ, calx viva, nasturtium, assa fetida, Xilobalsamum, carpobalsamum, thus, myrrha, majorana, flos rosmarini, narcissi radix, radix brioniæ, brassica, aqua vitæ, aqua marina, betula, ammoniacum, hederæ, pix, bitumen, calx viva, sulphur, radix ciclaminis auripigmentum, arsenicum, calcanthum, ammonicum, calaminthum, allum, dictamus, Sinapi, assarum, Sigillum beatæ Mariæ, galbanum, viscus quersinus, euphorbium, pyrethrum, cantharides, nitrum, omnes salis species, cinabrum, hydrargyrus, anagallis.

The Compounds.

Oleum Hederæ, Viscus quercinus, pix liquida, terebinthina, oleum philosophorum, vulpium, laurinum, rutaceum, Anetinum, petrolium, de castoreo, de tartaro, de hypericone, de nuce indica & muscata, de sulphure, de lateribus,

bus, Unguentum Aragon, Martiatum, Fuscum, Nicolai, Agrippæ theriaca, Sapa, Mithridatum, Confectio anacardina, Emplastrum diachilum magnum & parvum, de meliloto, apostolicon nicolai, Oxicroceum. **Those which draw by putrefaction,** Stercus omne, Presertim columbinum, Caprinum, Fermentum, Caseus vetus. **Those which draw by propertie occult :** Omnia medicamenta purgantia, Ambar, Pæonia, Magnes.

Unguentum attrahens.

Rec. Ammoniaci, Galbani, Sagapeni, an. unc. 1 dissolvantur in aceto, ut artis est colentur, deinde adde terebinthinæ, unc. se. olei veteris parum, fiat unguentum. Attractive unguent.

Emplastrum.

Rec. Spumæ argenteæ, Cerussæ, Salis, an, unc. 2 omnia seorsim triticum oleo veteri, Subigantur & coquantur, deinde usui serventur. Attractive emplaster.

Aliud.

Rec. Radicum arundinis unc. 2 florum Angelice, Mani, Radicis brioniæ, Altheæ. unc. se. contundantur simul & melle accipiantur & admoveantur parti.

Cataplasma.

Rec. Ficus pingues, N. 6 passularum mundatarum unc. 1 coquantur, Adde postea ceparum subcineribus coctarum, Capitum liliorum alborum, an. unc. 3 Mice cum fermento, Sale, & vitellis ovorum, fiat Cataplasma. Cataplasm. attractive.

Dropax.

Rec. Picis liquidæ, Ceræ, Colophoniæ, an. unc. 2 olei veteris li. se. nitri drag. 2 sulphuris vini. Drag. 1 se. piperis albi, Euphorbii an. drag. 1 Misce simul, fiat Dropax.

CHAPTER V.

¶ Of Medicaments Resolatives.

THe Medicament Resolative, which the Greeks call *Diaphoreticum*, **the Latines** *Resolvens* **or** *Digerens*, **and**

commonly called *Carminativum* rarifieth and evaporateth by insensible transpiration the humors, openeth the pores of the skinn, and is of qualitie hot which are divided into two sorte, to wit, the Proper which is weake, and Improper which is strong.

The Propers.

Proper resolatives simple.

Sabina, majorana. Rosmorina, Ciclaminis, Origanum, Absynthium, Melilotis, Atriplex, Spicanardi, Camomillum, Anethum, Anisum, Cumminum, Hissopus, fumus terræ, Malua, Parietaria, Urtica, Ebulus, Sambucus, Valeriana, semen Lini, Abrotanum, Adianthum, medulla cervina humana Aristolocchia, Brassica, Brionæ radix, Furfur, Fenigrecum, Galbanum, Hordei, Tritici, Lupinorum, farina Erui, Malva cum toto, Melilotum, Menta, Mercurialis, Piper, Resina, Sulphur, Stercus omne, Therebinthina, adeps Anserinus, Anatinus, Gallinaceus, Cervinus, Leonis, Caseus vetus, aqua callida, Vinum, Lana succida.

The Impropers.

Impropers resolatives simple.

Semen Urticæ, Dictamum, Ciclamen, Cæpa, Radix, Cucumeris agrestis, Apium, flos Rosmarini, spuma Nitri, Acetum, Hermodactilus, aqua vitæ, Piretrum, semina omnia calida, baccæ Lauri, Origanum, Coriandrum, Cinamonium, Cherefolium, nux muscata, calamus odoratus, Sabina, Majorina, Pulegium, Absynthium, Anisum, Spicanardi, Piper, Stercus Caprinum.

Composita resolventia.

Compound resolatives.

Oleum Camomille, Aneti, dulce, vetus, olceræ Mirrhæ Terebinthinæ, Hypericonis, Majoranæ, Violarum, de Cera, de Croco, de Bombace, Terebinthinæ, Sinapi, Sulphureum, Petroleum, Tartarum, Lumbricorum, catellorum, Liliatium, Vulpinum, Amygdalarum, dulcium, amararum, Sambuci, juniperi, de lateribus, Scorpionis, Salviæ, Minthæ, Rutaceum, de Euphorbio, de Tartaro, de Spica, de Petroleo, de Baccis, Vitellus Ovorum, Irinum, nardium, seminis Lini laurinum Philosophorum, omne oleum igne calefactum, Emplastrum, Stomaticum, Diachilon magnum, de baccis Laurii, de ranis, marciatum,

Aliud.

Rec. Olei violati, unc. 1. se. cum ovi vitello, agitetur cum unguento basilici parum, & admoneatur parti, multum valet in corporibus puerorum. Suppurative for delicate people.

Aliud.

Rec. Altheæ cum toto, foliorum parietariæ, malvæ, Violarum, brancæ ursinæ, an. M. se. seminis Malvæ bismalvæ, lini & fenegreci, an. drag. 3. ficum pinguium, numero 4. coquantur in aqua, deinde bene contusa cribrantur & pascentur persetaceum quibus adde farinæ fabarum & hordei an. unc. 1. olei liliorum & butyri recentis, & axungiæ suillæ an. unc. se. fiat Cataplasma.

Unguentum.

Rec. Diachili magni & albi, an. unc. 1. unguenti resumptini, unc. se. basilisi, unc. se. olei lumbricorum parum, fiat unguentum. Unguent suppurative.

Aliud pro partibus nervosis.

Rec. Farinæ hordei. unc. 1. se. ovorum vitellus duos, terebinthinæ & olei liliorum, an. unc. se. fiat Cataplasma. Suppurative for nervous parts.

Aliud

Rec. Olei nucum, Axungiæ suilæ vetereis, an. unc. 2. ceræ flavæ, unc. 1. se. mellis comumnis, fiat unguentum his omnibus simul liquatis.

CHAPTER VIII.

¶ Of Medicaments mundificatives, or abstersives.

THe Medicament cleansing, called by the Greeks *Ripticon*, and by the Latines *Detergens*, is that which hath the strength to separate and draw away the excrements purulent from the center of the Ulcers to the circumference, the which is of temperature hot, and of substance thin: and is of two kinds, the one is weake, domestick, and is either swæt or salt, as farina fabarum, hordei, ciccrum, semen lini, saccarum,

Saccarum, Oxymell, Terebinthus, Thus, Mel dispumatum, Amygdalæ amaræ, erui Farina, Radix indicus, Nitrum ustum, Nitri spuma, Pumex, **and divers others which Galen hath written at length in the Chapter above mentioned, and are divided in simple and compounds.**

The Simples.

Like as Farina fabarum, Hordei, Lupinorum & Oribi, Absynthium, Agrimonia, Betonica, Apium, Myrrha, Thus, Sarcocolla, Aloe, Abrotanum, flos Æris, Fellis, Leporis, Flecas, Pix resina, Pix græca viridis Æris, Tuthea preparata, Mel, enula Campana, Bryonia, Serpentaria utriusq;, sigillum beatæ Mariæ, consolida major cum toto consolida regalis, Terebinthina, Iris, Centaurea minor, Solani radix, Arnoglossum, Gentiana, Marrhubium, Calx lota, Helleborus, Æs ustum, calchantum crudum & ustum, Auripigmentum, Allumen, Serum Lactis, Butyrum, stercus Caprinum, Amigdalæ, Aristolochia utraq;, Melissa, Eupatorum, Fumestore, Artemesia, Mastick, Sarcocolla, Dragagantum.

The Compounds.

Compound mundificatives. Oleum de vitellis Ovorum, Hypericonis, Mellis, Myrrhæ, Guajaci, Terebinthinæ, de Tartaro, unguentum Fuscum, Diapompholigos, unguentum viridi Andromachi, emplastrum divinum, de Apio, Apostolorum, Ægyptiacum, pulvis Mercurialis, Farina Frumenti, Hordei, Mel solutum cum oleo Rosato.

Emplastrum detergens.

Emplaster mundificatives. *Rec.* Terebinthinæ veneæ unc. 7. Gummi Elemnii, unc. 3. resinæ unc. 1. se. liquefiant omnia simul, deinde refrigeratis quodammodo, adde pulveris Aristolochiæ longæ unc. se. sanguinis Draconis unc. 1 se. fiat Emplastrum.

Medicamentum blande detergens.

Cleansing medicaments. *Rec,* Mellis rosati unc. 1. vitellum unius Ovi, farina Hordei quantum sufficit Terebinthinæ in aqua Plantaginis lotæ drag. 2.

Unguentum detergens.

Unguent cleansing. *Rec.* Olei Hipericonis unc. 2. Gummi Elemni unc. 1 se. ceræ

Ceræ unc. se. Terebinthinæ unc. 1, misce & fiat unguentum.

Aliud.

Rec. Picis Resinæ lib. 1, Picis grecæ lib. se. butiri recentis lib. 1 se. viridis æris drag. se.

Aqua detergens.

Rec. Florum æris usti unc. 3, Tutiæ preparatæ in vino albo unc. 1, vini albi odoriferi unc. se. aquæ plantaginis unc. se. misce omnia simul. Cleansing water.

Aliud.

Rec. Vini albi unc. 2, Floris æris drag. 1 auripigmenti, drag. 2, misce simul cum aqua rosarum.

CHAPTER IX.

¶ Of Medicaments Incarnative.

THis Medicament which the Greeks call *Sarcoticon*, the Latines *Generatio carnis*, hath the force to dry and change the blood which cometh to any part, into flesh. It dryeth without mordication, it thickneth it, and converreth it into flesh. Such medicaments by the abstertion and desiccation moderately done, help nature. It should be drie in the first degree, to the end the two excrements which are grosse and subtill, being contrary. viz. abstertion and desiccation, may not let the action of nature in the generation of flesh. Of the which there are three kinds, viz. weak, strong, and very strong, because in a wound or Ulcer the superfluous humiditie exceedeth the naturall habitude, as for example, if an Ulcer be in a very dry part, the medicament must be more drie, for this cause there be sarcotick medicaments drie in the 4 degree. *Gal 3. meth. & 2. de compositio. phar. Gal. simp. 6.*

The weak.

Olibanum, colophonia, mastick, aloe, farina hordei, fenogreci & debent applicari corporibus humidis & delicatis.

The strong.

Aristolochia, iris florentia, farina lupinorum, orobi, calchantum ustum & debent applicari corporibus siccis, & vulneribus concavis.

The

The most strong.

The most strong are proper to be applyed in deep ulcers, as centaureum majus & minus, plumbum & antimonium ustum, glutinum adustum, limaces, myrrha. If a wound or ulcer be aierie, yet in a manner be very humide, the medicament must be drie in the first degree. If the wound or ulcer be charged with great humiditie, and the part nevertheleſſe very drie, the medicament must be drie in the ſecond and third degree. Of the which ſome are ſimples, others compoſed.

The Simples.

Olibanum, Maſtica, Aloe, Borax, Colophoniæ, farina lupinorum, orobi, hordei, fenegreci, fabarum, lentium, tritici, ariſtolochia utraq;, radix iris florentiæ, vitriolum, uſtum, pix liquida & ſicca, myrrha, ſarcocolla, mel, antimonium, plumbum uſtum, oleum omne, pompholigos utraq;, betonica, ſuccus piloſellæ, burſa paſtoris, ſquamma æris, hypericon, centarea minor, ſanicula, verbena, ſcabioſa, pimpinella, lingua canis, cervina, thus, dragagantum, terebinthina, ſemen hyperici, artemiſia, lingua bovis, polinum, gummi arabicum, cadmia, tuthia.

The Compounds.

Oleum roſatum, Abſynthii, Maſtici, de nuce muſcata cydoniorum, vitellus ovorum, Irinum, Omphacicum, thuris, ſarcocollæ, unguentum aureum, baſilicum Meſues, emplaſtrum gratiæ Dei, crocum, comitiſſæ, de betonica, diapalma, triapharmacum, ceruſe, pretioſum agordone deſcriptum, de janua, nigrum.

Emplaſtrum Sarcoticon.

Emplaſter incarnative.

Rec. Centaureæ minoris manipulos tres, macerentur viginti quatuor horis in vino albo, deinde quoq; ad mellis craſſitiem, adde lactis muliebris, unc. 1. terebinthinæ unc. 6. ceræ novæ, unc. 2. reſinæ, unc. 1. thuris, maſticis, gummi arabici, an. unc. ſe. fiat emplaſtrum.

Unguentum Sarcoticon.

Unguent incarnative.

Rec. Pinguedinis anſeris, porci, gallinæ & mellis an. unc. 1.

unc. 1 aloes & calcis vivæ tantillum, succi brassicæ quantum sufficit, misce, & fiat unguentum.

Aliud robustioribus corporibus.

Rec. Pulveris Aristolochiæ rotundæ, corticis Ireis, thuris an. drag. 3, aloes, myrrhæ, cadmiæ, masticis an. drag. 3 mellis quod satis erit.

Aliud ex Ætio.

Rec. Farinæ, tritici, drag. 2, colophoniæ, drag. 1. misce.

Aliud.

Rec. Rasuræ panni linei bene mundati drag. 5, apoponacis drag. 2, mellis, olei rosatum an. drag. 5, litargyri. aloes, sarcocollæ an. drag. 1, fe fiat. unguentum.

Pulvis Sarcoticus & Cephalicus.

Rec. Pimpinellæ, Betonicæ, Gariophilatæ, Valerianæ, an. drag. 1, philosellæ drag. 5, fiat pulvis quo cavum ulcus inspergatur.

CHAPTER X.

¶ Of Medicaments Cicatrizants.

The Medicament Cicatrizant, called by the Greeks *Epiloticon*, by the Latines *Cicatrizants*, is that which hath the power to make and cicatrize by his dryneſſe and astriction without asrimony drying the flesh in such manner, and maketh it in substance like to the skinne, yet not according to the first intention, by reason that parts permaticks doe not ingender in al points as before. This medicament is hot in the third degree, and is divided into Simples and Composed.

The Simples.

As allumen ustum, vitriolum ustum, galla, spongia usta, litargyrum, polypodium, terra sigillata, squammæ æris, aristolochia rotunda centaurea, malicorium, olivæ, apii semen tritum, flos mali granati, rosæ, anethum ustum, aloe, caries lignorum, pompholix, spodium, nux cupressi, calx lota, æs

æs ustum, mineralia usta & lota, myrrha, thus, plumbum, radix cucumeris silvestris, bolus armenus, cerussa, sarcocolla, pumex ustus, terra lemnia, calchantum sive attramentum sutoreum.

Composita.

Emplastrum de cerussa, de minio, album rasis, Vigonis, triapharmacum, diacalcithios, desiccativum, rubeum, diapompholigos, aqua aluminosa, & plura, descripta in capitibus de vulneribus.

Emplastrum Epiloticum.

Emplaster siccatrizant. *Rec.* Lapidis calaminaris, terræ sigillatæ an. unc. 4. ceræ novæ unc. 5. olei rosati unc. 2. olei hyosciami & papaveris albi an. unc. 2. se. olei violarum unc. 4. aqua vitæ drag. 3. fiat emplastrum.

Pulvis.

Powder siccatrizant. *Rec.* Sarcocollæ, Glutinis piscium, Chrysocollæ, plumbi usti, squamæ ferri an. drag. 1. misce, fiat pulvis.

Ulceribus pudendorum citra morsum siccantia.

Ulcers in the Yard. *Rec.* Aloes loti & æris usti an. unc. se. pulverescentur tenuissimè cum pulvere malecorii & balaustiorum & usui seruentur.

Aliud.

Siccatrizant water. *Rec.* Olibani, Aloes, sanguinis draconis an. drag. 3. Aristolochiæ rotundæ, cerusæ, corticis pini, centaurei minoris an. drag. 1. gallarum, balaustiorum an. drag. 2. fiat pulvis.

Aqua Epilotica.

Rec. Succi portulacæ, Caprifolii, Acetosæ, Arnoglossæ an. lib. 1. albumina ovorum viginti, aluminis rupis pulverisati lib. 3. vitrioli romani unc. 6. misce, & distilla.

CHAPTER XI.

¶ Of Medicaments Agglutinatives.

THe Medicament Agglutinative called by the Greeks *Simphiticon* by the Latines *Agglutinans*, is that which hath the vertue to drie the humidity that is betwixt the lips

of

of the wound, and are dry in the second degree, of the which some be simples, some composed.

The Simples.

Mastix, sarcocolla, thus, myrrha, colophonia, bolus armenus, terebintina, terra sigillata, sanguis draconis, hypericon, flos rosmarinus, succus centinodiæ, majoranæ, balsamum naturale & artificiale, sanguis humanus combustus gummi dragraganti, elemnii, hederæ, olibanum, terra lemnia, fotus vini rubei, consolida, petrea, verbena, mellefolium, argentina, talietrum, arnoglossa, herba roberti, sanicula, consolida minor, morsus diaboli, caprafolii, tela araneorum, cauda equina, nux cochlearum, sic limacum terrestrium, ebulus, sambucus, pentaphylon, folia pyrorum silvestrium, malorum, granatorum.

The Compounds.

Emplastrum nigrum, diapalma, de centauria, unguentum regis angliæ, unguentum de vermibus, oxoleum galeni, ad fracturas ossium.

Liquor pro omni ulcere, aut vulnere cavo.

Rec. Terebinthinæ venetæ lib. 1. Aqua vitæ lib. 3. vitrioli romani unc. 4. herbæ primulæ utrisq; M. 3. distilla in alembico vitreo. Liquor agglutinative.

Balsamum D. S. Johannis.

Rec. Olei lini, & olivarum an. unc. 4. terebinthinæ venetæ lib. 1. æruginis æris & vitrioli romani an. dra. se. bulliant parum lento igne & serventur, si volueris accomodare ulceribus, vice olivarum & sambucii accipies parum portione mercurii sublimati diligenter pulverisati. Agglutinative Balme.

Chapter XII.

¶ Of Medicaments Cathereticks, Septicks, and Causticks.

The Medicament which the Greeks call *Cathereticon*, the Latines *Carnis Consumptivum*, is that which hath the force to corrode, and putrifie in digering the substance

of the flesh and skinne, and may differ in 3 manners, viz. weak, strong, and very strong. The weak is called Catheretick, or Corosive; the strong is called by the Greeks *Septicon*, and by the Latins *Putrefactivum*; the very strong is called *Escareticon*, and by the Latines *Causticum*. The Catheretick hath the strength by vehement drying to consume the excrescences of flesh, as Polypus, Tuberculum, Vetrucæ, and is applyed commonly in wounds and ulcers putrides, or where there are excrescences of flesh, the which cannot be taken away neither by digerents nor astringents, and it is of two sorts, Simple and Composed.

The Simples.

Radix Asphodelorum, Hermodactylorum, Pyretrum, Oxilum, calx mediocriter lota, vitrioli omnia genera, squammæ æris, flos æris, allumen ostum & non ustum, sall correfactus, pompholix, Plumbum ustum, antimonium sive stibium, hydrargyrus sublimatus & precipitatus, cinabrum, lana succida, usta, & in pulverem redacta, squammæ æris, ærugo, calchantum, trossissi, andronius, radix sigilli beatæ mariæ, serpentaris utriusq; brioniæ, ciclaminis, ranunculus, apium risus, & regale, titimalorum species, sinapi, euphorbium, cantharides.

The Compounds.

Unguentum Ægyptiacum, unguentum omne detersinum cui permixtum fuerit aliquid ex predictis his medicamentis.

Pulvis Cathereticus.

Rec. Cerusæ ustæ, Lytargyri, Corticis pini, myrrhæ, gallarum omnium an. drag. 2, pulveriscentur ut alcoal.

Medicament putrefactive.

The medicament Septick is stronger than the Catheretick, for by the great heate and thinne substance, it hath the force to ulcer ꝑ skin, likewise ꝑ flesh, yet with little dolour. Nevertheleſſe, this kinde of medicaments is somewhat dangerous, like as arsenicum, auripigmentum, purum tum sublimatum, brioniæ, chrysocolla, sandarathus, apium radix,

sigilli

ſigilli beatæ mariæ. Omnes tithimali ſpecies, ſinapi, euphorbium, cantharides, ranunculus, apium riſus, apium rigale.

Medicament Cauſtick.

The Cauſtick which the Greeks call *Eſcaroticon* is very ſtrong, becauſe it conſumeth not onely the ſoft parts, but alſo the hard, making a ſcarre after divers maners, as yee have heard in the Chapter of Cauters, the which are hot in the fourth degree. Like as calx viva, arſenicum, ſublimatum, nitrum, vini fex uſti, lixivum forte, calchantum, ſalnitrum, thapſis.

Eſcaroticon ex Ætio.

Rec. Sulphuris, Radicis braſſicæ an. unc. 2. Axungiæ porci veteris unc. 4. miſce ſimul.

Veſſicatorum.

Rec. Cantharidum abjectis capitibus & alis, drag. 3. ſucci flammulæ vel pedis corui unc. 2. ſe. fermenti veteris unc. 2. piperis longi drag. 1. ſe. miſce, fiat emplaſtrum. A medicament to breake the head.

Aliud ex Bartapallia.

Rec. Fermentum non ſiccum, & fac ipſum tenerum fortiſſimo aceto, deinde accipe cantharides quantitate quæ ſufficit, & pone ſuper fermento, & appone loco affecto eſt mirabilis juvamenti in humoribus trahendis à capite, & vento ſicatibus diſſolvendis à facie.

Aliud.

Rec. Flammulæ M. 2. contundantur diligenter & parti applicentur: Item fieri poteſt de perſicaria, de appio ſilveſtri, radice ranunculi, & de viburno.

CHAPTER XIII.

¶ Of Medicaments which ſtay the Flux of Blood.

Becauſe the Blood is the treaſure of life, it is moſt needfull when it floweth exceſſively, to ſtay the ſame, otherwiſe death ſhall follow. This medicament is of nature and qualitie cold, and is either ſimple or compoſed.

The simple.

Bolus Armenus preparatus, Terra sigillata, sanguis draconis, crocus martis, veneris, calx testarum ovorum, colcothar simplex, colcothar dulcificatum, cerussa, cadmia, lytargirum, gipsum, thus, aloe, mastix, resina, gluten, Amylum, grana passularum rubrarum, portulaca, sempervivum, cauda equina, auricula muris, umbilicus veneris, psylium, farina volatilis, Corallum utrumq; lapis hæmatites, calchantum ustum, dragagantum, sarcocolla, gummi arabicum, pili leporis usti, sanguis humanus ustus, antimonium, centinodium, tela araneorum, & alia quæ audivisti in Capite de vulneribus venarnum & arteriarum.

Pulvis astringens.

Powder to stay blood.

Rec. Thuris partem unam, pilorum leporis minutim incisorum partem se. fiat pulvis.

Aliud.

Rec. Balaustiorum unc. 3. alluminis unc. 1. vitrioli usti unc. se. misce, fiat pulvis.

Aliud.

Rec. Thuris partem unam, sanguinis draconis partem se. calcis vivæ partem tertiam, fiat pulvis.

Cataplasma.

Cataplasme to stay blood.

Rec. Thuris, Aloes, sanguinis draconis, boli armenici, an. partes æquales, omnibus cum ovi albumine acceptis, cum pilis ventris leporis minutim incisis, fiat cataplasma.

Hemeragia desperata ex Avicenna.

Rec. Vitrioli usti unc. 2. se. Thuris unc. 2. Aloes & Glutinis sicci an. unc. 1. arsenici unc. se. gypsi pulverisati unc. 2. se. misce & fiat pulvis, cui aspergatur pluma ceolis.

Chapter XIIII.

¶ Of particular Remedies, and first of Oyles.

HAving heretofore spoken somewhat generally of Medicaments which ordinarily are used by Chyrurgions; so

so now I will speak more particularly for the better instruction of the young Artificer, beginning at Oiles, of the which there are four kinds. The first, is that which is drawen out of Olives, and is vulgarly called simple or common oile, well knowen to all men. The second, is that which is drawen of the expression of Seeds, like as oile of Almonds, and is thus made. Take Almonds and beat them in a morter of stone or Marble till they become paste, then heat that paste with the vapour of hot water, then work it much with your hands, then put it in a Canvas cloth made hot, and put it in a hot presse, by this means ye shall draw a very clear sweet oile. After the which form ye may make oile of bitter Almonds or Nuts: also of seeds of Cucumbers, Mellons, Curges, Paonia Christi, Staphisagria, Hemp-seed, Lint-seed, Puppie, Insquiam, or other seeds. These sorts of oiles may also be extracted after the form ye doe the third kind of oiles. The third kind, is that which is done by the force of fire, like as oiles of Eggs, which is made of the yolks of 20 Eggs or thereabouts, that have been hard boiled in water, then bruise them small with your hands, and put them in a Frying-pann that is well luted with Lead, frie them and move them with a spoon or peece of wood, till such time as they become red, and you perceive some oile, then put them in a peece of Canvas and presse them, as in the first sort you have heard. As touching other oiles which are composed after this form; as also the oile which the Philosophers doe call oile of Tartare, the form whereof is particularly set down by Mesues, and others, so not needfull here to insist further; as also because those oiles be not much used. The fourth kind, is that which is made of oile, wherein is boiled some parts of certain hearbs or beasts, which having left their quality in the oile, are crushed through a cloath or pressed: When if any humor doe rest in the oile, it must be consumed by boiling, like as all other oiles that are made with any liquide juice, or wine. For if any liquide juice, or humor remain,

remain, it doth rot and consume the oile; then if any such humor doe remain in the oile, you shall know by putting a drop of it on your hand, then if any humor be, you will perceive the oyle to swimm above the liquide humor. Such oyles as are made of flowers, are either put long in the sun, or boiled at a small fire; and such as are made of Animals or Beasts, are made by putting of those Beasts quick into the oile and make them to die, the which form is used with Scorpions, Serpents, Doggs, Froggs, Foxes, and such like.

Oleum Rosarum.

Rec. Cumarum rosarum rubrarum recentium, well cleansed and bruised, succi rosarum an. li. 1. macerate them in 5 pound of oleum omphacinum, or well washed in oile, then put all close in a glasse the space of five or eight daies in the the Sunn, then boile them three houres in a double vessell, thereafter strain the lees, and put in new again, the which form you shall use twice or thrise, ever boyling or sunning of them till the juice be consumed. This oile is good for heat, inflamation, staieth fluxions, strengtheneth and thickeneth the parts where it is put.

Oleum Violarum.

This oile is made of oile Omphacine, or oile of Almonds, by putting in it fresh purple Violets in a vessell of glasse, well covered and put in the Sunn twelve daies, changing the Violets every third day, in the end put in dry Violets. It hath the like vertue as the former.

Oleum Nymphæa.

Oleum Nymphæa, is made by putting the white flower of water Lillies, well macerate & washed in oile, and set in the Sunn the space of 20 daies or longer, changing the Lillies every five daies once. This oile doth more refrigerate than any of the former. It pacifieth the heat of the kidneys, head, and bladder, procureth sleep. The oile of Puppi and Juliquimi, are of the same nature, and are made after the same form, but are better if they be made by expression as you have heard.

Oleum

Oleum Cydoniorum.

Rec. Cydoniorum cum cortice & semine tusorum, succi cydoniorum, an. lib. ss. Mingle them in a vessell of glasse with a pound and an half of oleum omphacinum, set them in the Sunn the space of twentie daies, then boile them for an hour in a double vessell strained, and put in fresh the second and third time, and boile as the former, then strain it and keep it for your use. It it hath the vertue to binde, and is very cooling, good for the Stomack, Liver, and Intrals: it restaineth vomiting.

Oleum Masticinum.

Rec. Mastichis unc. 4. vini optimi unc. 4. olei omphacini or rosacei, lib. 2. boile them in a double vessell to the consumption of the wine. It hath the vertue to corroborate the brain, sinewes, Liver, and Stomack. It is good for vomiting and lientery.

Oleum Camemellinum.

Rec. Florum Camemelli recentium & tusorum lib. 1. Macerate and infuse them in sweet oile in a glasse in the Sunn, the space of twenty daies, then strain it and keep it for your use. It hath the vertue to asswage pain, corroborate the sinewes and membrains.

Oleum Liliorum.

Rec. Florum Liliorum alborum integrorum, lib. 1. macerate them in sweet oile, & set them in the Sunn the space of twentie daies, then strain it and keep it for your use. It hath the vertue to asswage the pain of the stomack, breast, belly, kidneys, and bladder.

Oleum Anetinum.

This oile is made of lees of Anetide or Dil, macerate and bruised in a sufficient quantitie of sweet oile, and set in the sun five or six daies, or boiled in a double vessell, strain it and keep it for your use. It hath the vertue to heat digest and assage the pain of the head, sinewes, and procureth sleep.

Oleum

Oleum Lumbricorum.

Rec. Lumbricorum terrestrium, lotorum, & preparatorum lib. *ss.* Vini albi, un. 2. olei dulcis lib. 2. boile them to the consumption of the vine and wasting of the worms, then strain it and reserve it to your use. It hath the vertue to assuage pain, doth soften with a moderate heat, very good for bruising and pain in the joints.

Oleum è Castoreo.

Rec. Castorei in aqua vitæ soluti, un. 1. olei lib. 9. boile them in a double vessell untill the third part be consumed. It is good against diseases of the nerves, deafnesse, noise of the eares, and coldnesse of fevers.

¶ Of Unguents.

Unguents are so called, because they doe annoint the parts where they are applyed, and are of more thick and solide consistence, than oiles. The matter whereof unguents are made, are of parts of plants, and divers parts of Beasts: also of Mettals and thinn Juices, the which are consumed by boiling, as you have heard in oiles. Sometime there doth enter into unguents dry hearbs, which must be put in fine powder, and mingled with the rest, as you have heard of Mettals. All Unguents are made either by fire or long working, as the Unguent of Litharge called Nutritum, Unguentum aureum called regis.

Rec. Ceræ Citrinæ unc. 6. olei lib. 2. *ss.* Terebinthinæ unc. 2. Resina pinæ & calophoniæ, an. unc. 1. *ss.* Thuris, Masticis, croci, drag. 1. The Ware must be melted with the oile, then put in the Terebintine and powders, being finely bruised.

Unguentum refrigerans Galeni.

Rec. Ceræ albæ unc. 8. olei rosati lib. 1. Melt them on the fire, and let it cool. After that beat and wash it long with cold water, thereafter with vinegar or Rose-water.

It

It is very cooling, good for Phlegmons, Erysipelas, and all hot tumors.

Unguentum album.

Rec. Cerussæ unc. 4. litargyri drag. 2. Lay them a good space in Rosewater, then put them in a mortar, and by little and little powre in so much Rose-oyle as they can drink up, continually stirring and tempering them till such time that they appeare in forme of an Unguent, adding thereunto a little white Vinegar with some Camphere. It is cooling, assuageth pain & inflamation, and is good for heat, scabs, itch, and all out-breaking.

Unguentum diapompholigos.

Rec. Olei rosacei unc. 5. succi solatri unc. 7. bulliant ad succi consumptionem, deinde adde ceræ albæ unc. 2. *ſs.* Cerussæ lotæ unc. *ſs.* plumbi usti loti pompholigis, thuris an. unc. *ſs.* coquantur in formam unguenti. This Unguent is cooling, dryeth and filleth up hollow ulcers and wounds, bringeth maliguant ulcers to escharre.

Unguentum resumptivum.

Rec. Seminis lini, altheæ, & fenugreci, Gummi arabici, dragaganthæ, an. drag. 2. macerentur & bulliant in lib. *ſs.* aquæ rosarum. Then straine out the mussilages, and dissolve in the rest adipis suillæ, gallinæ, anseris, anatis, an. unc. 2. asopi unc. *ſs.* olei violarum, Camomilini, Amygdalarum dulcium, an. unc. 2, medulla vituli, butyri recentis, ceræ albæ an. lib. *ſs.* coquantur, & fiat unguentum. It hath the vertue to molifie without great heat.

Unguentum Basilicum, or Tetrapharmacum.

Rec. Resinæ picis, ceræ an. lib. *ſs.* olei quantum sufficit. It hath the vertue to heat, humect, and mitigate the paine.

Unguentum aureum.

Rec. Ceræ citrinæ unc. 6. olei dulcis lib. 2. *ſs.* Terebinthini unc. 2 resinæ colophoniæ an. unc. 1 *ſs.* Thuris, mastices an. unc. 1. croci drag. 1. You must melt the Ware with the oyle, then put in the other ingredients, which being all melted, put in the Terebintine, and take it from the fire,

fire, keep it for your use. It hath the vertue to cleanse, fill up, and agglutinate wounds.

Unguentum Ægyptiacum.

Rec. Æruginis drag. 2. Mellis optimi, unc. 1. *ss.* Aceti fortis drag. 10. Seeth al these on the fire till such time as it become thick & of purple colour. It hath ye vertue to cleanse mightily fistules & old ulcers, eateth & consumeth dead flesh.

Unguentum Apostolorum.

Rec. Terebintinæ, ceræ albæ, amoniaci, an. drag. 14. Floris æris, opopanacis an. drag. 2. Aristolochiæ rotundæ, Thuris, masticis, bdellii an. drag. 6. Myrrhæ & Galbani. an. drag. 4. litargyri unc. 9. olei lib. 2. Si æstas fuerit, hyems vero lib. 3. You must macerate the bdellium, amoniack, opopanax, galbanum in strong Winegar, and dissolve with the other simples in the Oyle and Ware, and boyle it to the forme of an unguent. It hath the vertue to cleanse wounds and Ulcers, consumeth spungious and dead flesh, and procureth new againe. It is called *Apostolorum*, because it is made of twelve simples, which was the number of the 12 Apostles. Yet I finde in Nicholas Alexandrine an *Emplastrum* called *Apostolicum*, in the which enters one and twentie simples.

Unguentum Ænulatum.

Rec. Radicie ænulæ, ex aceto, coctæ, tusæ, & cretæ lib. 1. axungia porci, olei an unc. 4. ceræ novæ unc. 1, argenti vivi bene extincti, terebintinæ loti an. unc. 2. salis bene triti unc. *ss.* You must first ignifie the Ware and grease with the oyle, then put to the Ænula, thereafter the Quick silver, Salt, and Terebintine. It is good for itch and scabs of any sort, and against any filthinesse of the skinne.

¶ Of Emplasters.

EPplaster is a Medicament which is applyed to divers parts of our body for sundry causes. It is of consistence hard

hard and solid, composed almost of all sorts of simple medicaments, chiefly such as are greasie and dry, in it doth enter all parts of plants, mettallick simples, and terrestrious, with divers parts of beasts, sometimes whole quick beasts: of these ingredients some doe only lose their vertue and facultie, like as wine Vinegar, with all other thinn issues, all which are consumed in the boiling, before the plaster be brought to perfect consistence.

Emplastrum diachylum simplex.

Rec. Muccilaginum seminis fenugreci, & lini radicum, altheæ an. lib. 1. olei veteris lib. 3. litargyri triti lib. 1. *ss.* You must first dissolve the Litarge in a morter with oyl by little and little till they be well mixed, then boile them at a soft fire, stirring them ever about with a spill of wood till they become thick, then put in the musilages and boile them to the consistence of an emplaster. It hath the vertue to soften hard tumors of all externall parts, as also the liver and spleen being hard and schirrous.

Emplastrum diachylum magnum.

Rec. Litargyri triti unc. 12. olei Irini, camomelini & anetini an. unc. 8. Muccilaginum seminis fenugræci, & lini radic. altheæ, ficum, pinguium, uvarum passarum, succi iridis, & scyllæ, æsopi, Icthyocollæ, an. drag. 12. *ss.* Terebintinæ unc. 3. resinæ pini, ceræ citrinæ, an. unc. 2. You shall mixe all these, and make them in the consistence of an emplaster as the former. It hath a great mollifying vertue.

Emplastrum diacalcitheos, or palmeum.

Rec. Adipis suillæ recentis sine sale, & fibris, lib. 2. olei veteris litargyri triti an. lib. 3. calcithidos levigatæ unc. 4. The grease and oyle must be boiled at a slow fire, then put in the Litarge and Vitriol, stirre it continually with three green boughs, Mirti, Sorbi, or Mespelum, and when it is come to the thicknes of a cerate, the tender boughs must be cut in peeces, and put in by little and little, then boile it to the consistence of a plaster. It hath the vertue to stay fluxions, it doth resolve and agglutinate ulcers and wounds.

Emplastrum

Emplastrum è Musilaginibus.

Rec. Muccilaginum seminis lini, altheæ, fenugræci, mediani, & corticis ulni an. unc. 4. *ss.* olei camomillini, liliorum & aneti an. unc. 1. amoniaci, galbani, opopanacis, sagapini an. unc. *ss.* croci drag. 2. Terebintinæ unc. 2. ceræ novæ drag. 20. Of all these you shall make an emplaster as the former. It hath a mightie vertue to mollifie and digest hard tumors; it is a maturative, so is applied upon tumors to procure matter.

Emplastrum è Baccis Lauri.

Rec. Thuris, Mastichis, myrrhæ an. unc 1. baccarum lauri, unc. 2. ciperi costi, an. unc. *ss.* Mellis colati quantum sufficit. Some doe add to these ingredients a little Goats dung well dryed. This plaster hath the vertue to pacifie pain, chiefly of the stomack, intestines, womb, and other parts, chiefly when the cause doth proceed of cold or wind.

Emplastrum oxicrocium.

Rec. Picis Navalis, ceræ, croci, colophoniæ an. unc. 4. Terebintinæ, amoniaci, galbani, myrrhæ, Thuris, masticis an. unc. 1. & drag. 3. The Galbanum and Ammoniack, must be lignified one night in Vinegar, then melted on the fire, passed and boiled again till one part be consumed, then put to the Pitch, which being melted put it to the Ware, and being lignified, you shall add the Turpentine and Colophon, thereafter put to the Mastick, Incense, and Myrrhe, stirring it ever with the spill till it be boiled, then cast it in cold water, thereafter exprime it well with your hands, put it on a Marble stone rubbed with oyl, and a little powder of Saffron, thereafter form Magdaltons or little roles. It hath the vertue to mollifie, allwageth the pain of the joints, and membrains that cover the bones.

Emplastrum de Janua.

Rec. Succorum apii, plantaginis, & betonice, ceræ, picis, resinæ, Terebintinæ, an. lib. *ss.* Of the which you shall form your plaster in this manner; Seeth the 3 simples in juices at a soaking fire, stirre them ever til the juices be consumed, then

then put to the Terebintine, and give it little seething, then remove it from the fire, and form the roles. It is good for wounds of the head, it doth mundifie, incarnate, agglutinate, cicatrize, and pacifieth inflamation.

Emplastrum gratia Dei.

Rec. Terebintinæ lib. *ss.* Resinæ lib. 1. Ceræ albæ unc. 4. Masticis unc. 1. Betonicæ, Vebenæ, Pimpinellæ an. M. 1. The hearbs must be bruised and boiled in white wine, till the third part be consumed, then strain out the liquor. In the which put the Ware, Rozine, and Mastick, and boile till it come to the consistence of a plaster, then take it from the fire and put to the Terebintine, remove it well, then form your plaster.

Emplastrum divinum.

Rec. Galbani, Myrrhæ an. unc. 1. & drag. 2. Amoniaci unc. 3. & drag. 3. opopanatis, mastichis, Aristolochia longæ, æruginis an. unc. 1. Litargyri, olei communis, an. lib. *ss.* ceræ novæ unc. 8. Thuris unc. 1. & drag. 1. bdellii unc. 2. Magnetis unc. 3. The Litarge must be mingled with the oile by stirring of it, thereafter boile it till it become somewhat thick, then add the Ware it being cut in small peeces, the which being lignified is taken off the fire, then is put to the Galbanum, Amoniacum, Opopanax, and Bdellium, dissolved in Winegar and wine, then boile it and strain it; thereafter put the powders, Myrrhe, Mastichis, thuris, aristolochiæ rotundæ, magnetis; then sprinckle it with fine powder of Æruginis. This plaster is good for tumors with corruption of the bones and maligne Ulcers. It consumeth corruption, and ingendereth new flesh.

Deo laus, honor, & gloria in sempiternum.

Candido Lectori.

CAndide Lector, quisq; ex hoc libello fructum perceperis, bene precare D. *Jacobo Hamiltonio, Abricorniæ* Comiti, in cujus, ac Reipub. gratiam conscripsi.

Vale.

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FINIS.

THE PRESAGES OF Divine *Hippocrates*.

Divided into three parts. VVith the Proteſtation or Oath which *Hippocrates* cauſed his Schollars to make at their entry with him to their Studies.

The Whole Collected and Tranſlated by *Peter Lowe* Scottiſh-man, Doctor in the Facultie of Chyrurgery in *Paris*.

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An. Dom. 1655

To the Reverend Father in God *John*, by the permission of God Arch-bishop of *Glasgow*; *Peter Low* wisheth the accomplishment of all perfect honor and felicitie.

When I had collected and turned into our vulgar language, This little work (Right Honorable;) I considered with my selfe, that in ancient time, and also in this our Age, men have ever accustomed to dedicate their travels unto such vertuous Personages as they have honoured: and I examining my selfe, unto whom I might addresse this Treatise of the Presages, I thought good to offer and present the same in all humilitie to your Honour: It being the work of Hippocrates *the Paragon of Physitians, and your Lordship the patterne of learning, the patron of learned men, the fittest to judge of their workes. For I must confesse it, ever since it pleased God to place your Lo: in your Ecclesiasticall eminencie above us in this Citie, I have ever been inclined to testifie my affection to your Ho: by my humblest endevours: But having nothing in my power, but my simple desires; my hands being too short to come to solide asserts, I give this publique testimonie to the world of my inward disposition, and consecrate my selfe and my labours to your Lordships most Honorable Patronage. Your Honors pietie in Religion, prudencie in policie, knowledge in all sciences,* (Quoniam nomine religiosissime, prudentissimo, & eruditissimo Principi acceptissimus es) *and gravely tempered with affabilitie in civil conversation, shal protect me from* Momus *malicious envie, procure me the favour of good men, incourage me to undertake further paine: for the publique utilitie, oblige me more and more to your Honors service, and wish your Lordship all contentment, prosperitie, and long life, long to rule in Gods Church, governe the Common-wealth, and better the estate of all those that be subject to your Honors authoritie. I humbly take my leave from mine own house in* Glasgow, *the* 7. *day of* November, 1611.

Your L. most dutifull to command, *Peter Lowe*.

The

The life of HIPPOCRATES.

Hippocrates was the sonne of *Heraclides*, as *Galen* doth affirme in the first Book of Regiment of hot Fevers, but as others say, the sonne of *Esclepius*, he was bred and born in the Isle of *Cos*, his Master and Instructor was the great *Pythagoras*. His naturall inclination was towards good, for he hated, loathed, and abhorred all pompe and worldly pleasures and veneriall lusts. He constrained also his Schollars by an oath to be silent and keep taciturnitie, modestie, affabilitie, and humilitie, as well in manners, as in apparell. S. *Hierome* testifieth that he restored the science of Physick being almost lost five hundred yeares, viz. since the time of *Esculapius*. He was little in body and stature, but faire and exceeding well favoured: he had a good and strong head: he went slowly and softly: he was very pensive and of few words: he was no great eater, nor glutton: he lived 95. yeares: he used oftentimes this sentence; *He that will live in libertie, let him not desire that which he cannot obtain, and he who would have that which he desireth and coveteth, let him desire nothing but that which he may obtain.* Furthermore, he who would live peaceably in this mortall life, let him conforme himself to him who is invited to a feast, who giveth thanks for all which is layd before him, and grudgeth not at any thing which is omitted. He lived in the time of *Eliachim*, *Malachias*, *Pereno*, and *Socrates*.

is Master
is *Pythago-*
s.

restored
ysick, long
st.

pocrates
overb.

The

¶ The Proteſtation and Oath of divine *Hippocrates*.

I *Hippocrates* doe vow, promiſe and proteſt to the great God *Apollo* and his two Daughters *Higine* and *Panadie*, and alſo to all the gods and goddeſſes, to obſerve the contents of this oath, or tables wherein this Oath is carved, written or ingraved, ſo farre at I can poſſible, and ſo farre as my wit or underſtanding ſhall be able to direct me, viz. that I yeeld my ſelf tributarie and debtor to the Maſter and Doctor who hath inſtructed me and ſhewed mee this ſcience and doctrine, even as much or rather more than to my Father who hath begotten me, and that I ſhall live and communicate with him and follow him in all neceſſities which I ſhall know him to have, ſo farre as my power ſhall permit, and my goods ſhall extend. Alſo that I ſhall love and cheriſh his children as my brothers, and his progenie as mine own. Further, that I ſhall teach, ſhew, and demonſtrate the ſaid ſcience (gratis) without reward or covenant, and that I ſhall give all the Cannons, rules, and precepts, freely, truly, and faithfully to my Maſter his children, as to mine own, without hiding or concealing any thing, and to all other Schollars who ſhall make the ſame oath or proteſtation, and to no others. Alſo that in practiſing and uſing my ſcience towards the ſick, I ſhall uſe only things neceſſary, ſo farre as I am able, and as my ſpirit and good underſtanding ſhall give unto me, and that I ſhall cure the ſick as ſpeedily as I may, without dilating or prolonging the Maladie. And that I ſhall not doe any thing againſt equitie, for hatred, anger, envie, or malice, to any perſon whatſoever : Moreover,

Tributarie to his Maſter.

Love his Maſters Children.

Not to minister poyson.

To give nothing to women, to cause abortment.

To bear with the sick.

Heer *Hippocrates* sheweth that the place of the blessed is eternall, & the pain of the wicked infinite.

ver, that I shall minister no poyson, neither councell nor teach poyson, nor the composing thereof, to any: Also, that I shall not give, nor cause to be given, nor consent that any thing be applyed to a woman breeding or bigge with childe, to destroy, or make her voide her fruit. But I protest to keep my Life and Science purely, sincerely, and inviolably, without deceipt, fraude, or guile. And that I shall not cut, nor incise any person having the stone, but shall leave the same to those that are expert in it: and furthermore, I shall not enter into the Patients house, but with purpose to heal him: and that I shall patiently sustaine the injuries, reproaches, and loathsomnesse of sick men, and all other base raylings: and that I shall eschew as much as I may, all venerious lasciviousnesse. Moreover, I protest, be it man, woman, or servant, who is my patient, to cure them of all things that I may see or hear either in minde or mannners, and I shall not bewray that which should be concealed and hidden, but keep inviolable, with silence, neither reveale any creature, under paine of death. And therefore I beseech our Gods, that observing this Protestation, promise and vow intirely and invioably, that all things in my life, in my Art and Science, may succeed securely, healthfully, and prosperously to me, and in the end eternall glory. And to him that shall violate, transgresse, or become perjured, that the contrary may happen unto him, viz. misery, calamitie, and continuall maladies.

The end of the Protestation.

The first Book of the Presages of divine HIPPOCRATES, called Prenotionum.

The Preface.

ANy Physitian or Chyrurgion daring to purchase glory and honour, the love of the people, and some wealth by his Science, ought to shew himselfe skilfull and expert, and that by declaring to the Patients the signes past, present, and future, of their Maladies, & shewing the things over-past by the sick men, and advertising or reducing to their memorie, things forgotten: which the sick persons knowing, will the more confidently commit themselves to their hands, presuming and thinking that he hath a generall knowledge of all Maladies, and that they shall bee speedily cured, the which is true. For having such knowledge of things past, present, and future, he may more easily help the Maladies, although it be impossible to any Medicine Chyrurgion to cure and heale all diseases: for that should be a greater thing, than to foretell the future accidents. For it sometimes happeneth that the sick die by the violence or malignitie of the Maladie, before the Physitian be called: some dye shortly after the Physitian Chyrurgion is arrived, the same day: also one or two dayes after, before that by his science and diligence he may correct and take away the perill and dangerous accidents. Therefore he ought to endeavour, and enforce himself to know the nature of such sicknesse, also the strength of the sick, to the end he may avoyde defamations, opprobrious speeches and reproaches, the

The Physitian should be skilfull.

the which doing, he shall make himself admirable, and more divine than humane, presaging death to one, and health to another; having likwise regard to the qualitie, goodnesse, and malignitie of the ayre, which circumvirons the sick, as the universall ayre, the times, and qualities of the yeare also the good and evill aspects of celestiall bodies, which foreseeing, he shall eschew dishonor, and shall get renowne and friends in all his actions.

Death to one. Health to another.

¶ How the Physitian or Chyrurgion may presage by signes of the Face, in sicknesse.

NOw to foretell, foresee, or presage well by the signes in dangerous and vehement Maladies; It is requisite to consider and contemplate the Face of the sick. First to know if it be such as in health, or but a little different: and if it be so, the Mediciner Chirurgion may have a good presagement and hope of Recoverie. But if it be greatly altered, and changed, as followeth, hee shall esteeme it in perill and danger of death, when the nose and nostrills are extenuated and sharpened by the same Maladie, and the eyes hollow, and the temples, viz. the parts betwéene the eares and forehead are cleane, and the skinne of the brow is hard, dry, and loose, and the eares cold and shronke, or almost doubled, and all the face appeareth black, pale, livide, or leaden, and greatly deformed, in respect of that which it was in time of health. When these things before mentioned appeare in the Face, or the most part of them. In the beginning or first dayes of the Maladie, he must enquire if he cannot know by any other token) if it happen not by watching too much, or that the Patient hath not had time or opportunitie to sleepe, or if he hath had a naturall flux of the belly, or if the said things have happened by famine: for if it be so, he ought not to feare danger. On the contrarie, if the Face appeare such and continue, and the Patient

To contemplate the face.

Alteration of the face, eyes, and temples.

Opportunitie of sleepe.

tient saith, that the said things doe proceed of watching, lowsnes of body, nor by fasting, the Phisition may assuredly presage death approaching; and if the Maladie hath already continued three or four daies, after (having considered that as is above mentioned) it behoveth him to contemplate by other signes, as by the eyes, lipps, hands, and other parts of the body.

To presage by the signes of the *Eyes*, and *Lipps*, in sicknesse.

Evill signes of the Eyes.

IF the Eyes cannot see the day or light, and weep or powre out teares against nature, and against the Patients will: Also when it seemeth that they are like to fall out of the head, or that the one is evidently grown lesse or diminished, or that the white of the eyes is red, and the vains appear red, or livide, or that they are bleared or dimm, or trembling and very moveable, or deep and sunck in: also when the sick becometh squint eyed and loketh overthwart, with a terrible and obscure look, and hath the visage all disfigured and fearfull: all these signes are pernicious and mortall. Also when the Patient sleepeth with his eyes half open (and doth not so by custome) and the white of the eye shew it self, the eye-lids being only closed, if this happen not by the flure of the body, nor by laxative Medicines, it is a signe of death. Also when the eye-lids, the lips, and nose seem to be crooked and drawn awry, also mortified and livid: these signes with the proceedings, foretell death to the sick. Likewise when the lipps are lean, hanging down cold and pale, against the nature of the sick, the Phisition may presage and prognosticate death to approach.

Mortall signes of the visage.

To presage by the manner of *Lying* and *Reposing in sicknesse*.

As for lying, it is a very good signe when the Patient reposeth and resteth on the right side, or left, at his ease, having his hands upon his stomack or elsewhere, not being stiffe of his legs, but flexible, and to repose as in health, is best. For to ly with neck, hands and feete stiffly extended and inflexible is an evill signe. Likewise when the sick turneth, wrings and tosseth up & down oftentimes, with starting either in sleep, or waking, and making the beds feet where the head should be, casting himselfe downe, not knowing what he doth, is an evill signe. Also if he often uncover himselfe, having no great heat in the extremities, and that he casteth forth his armes, leggs, feet and head, sometime on this side, sometime on that, it is a signe that he is in great anguish and distresse. Also it is a pernicious sign to sleep with the mouth open, contrary to nature. Likewise to sleep with the face upward, having the legs enterlaced, and folded together as it were cords, and that by the force and violence of the Maladie, is a bad signe, or when they are much enlarged against reason. Likewise he that sleepeth contrarie to nature and custome, with the belly downward laid close to the bed, sheweth and signifieth confusion and alienation of senses, or great rage & dolor of the belly. Also whosoever in the day of Critication, and force of the Maladie, constraines and forceth himself to rise, and sit upright, and is impatient, puts himself in danger, and it is an evill signe in all vehement and great Maladies, but worse in pulmonick passions.

Stifnes of the leggs.

Evill signes

To sleep with open mouth.

To presage by the *Teeth*, in sicknesse.

When one gnasheth the teeth (not as a man that hath extream cold, but with collision in the Fever, and hath not had it naturally, nor by custome, it signifieth trembling of the spirit, and consequently death, and if he be shortly after void of reason and alienated, it signifieth death approaching

To

To presage of *Death* by any Ulcer.

IF there happen to the sick person any Ulcer, Anthrax or Carbuncle, whether it goe before the Maladie, or come with the Maladie: if the Ulcer dry up, and become either green livid, or black, and you perceive the sick to grow worse, you may prognosticate death ensuing.

To presage by the *Hands*, in sicknesse.

WHen any Patient is sick of the hot or burning Fever, or in the Maladie of the lungs, called Peripneumonia, or of bastard frenzie, and not perfect, or of great dolor of the head, and seeks here and there, about, below, and upon the bed, threads, & haires, of the face, also feathers, or filth of the coverings, straw, reshes, and other things, and thinks to take hold of the feeling and wals, the which are all mortall signes most commonly.

To presage by *Breath* or *Respiration*, in Fevers.

THe Breath or Respiration, signifieth often dolors or inflamations, or burning heat in the vitall members, as in the heart and lights, but when it is great and rare, so that there is any long space betwixt the Respiration, it signifieth alienation of understanding and reason. And when the breath issueth out of the mouth and nosthrils very cold, it foretels great perill of death. But gentle Respiration in any hot Maladie being joined and accompanied with a Fever, is a signe of health in those that doe end in fortie dates.

To Prognosticate by *Sweat*, in Fevers.

THe healthfull, commendable, and good Sweat in all hot Maladies, is that which happeneth in the day of Critication and Judgement, and cheifly when it is universall & the Patient finds himself thereby eased and strengthned. And if it happen not in the same day and be not universall it is no good signe. For the mortall Sweat is particular and cold, as in the forehead, in the head or face only, and this

Sweating is healthfull in the Critick day.

the burning Fever and other Maladies declareth continuance of the Maladie.

To presage of the *Right side* and *Left in Fevers.*

When the Patient feels not any dolour, tumor, hardnesse, or inflamation upon the Ribbs, it is a very good signe, and when the one side is as soft as the other, without dolour. But if there be dolour, tumor, hardnesse, or inflamation on both sides, or on the one more than the other, it is an evill signe. For if he feel great motion or pulsation in one of his sides, hee may prognosticate great distresse and dolour, or alienation and confusion of Reason. If with this pulsation the eyes be very moveable, the Patient is in danger of a Frensie and to be frantick, or to destroy himself.

To presage by signes of Tumors or Apostumes under the sides.

The Collection of Apostume in a burning Malady under both the sides with tumor and dolour, is more dangerous than under one of the sides only, and chiefly lesse dangerous under the left side than under the right: and if the Patient die not in the first daies, and if it continue twentie daies and the Fever cease not, nor the Apostume diminish, it is a signe it shall come to maturation; and if it happen on the seventh day with the flux of blood at the nose, it easeth much, and the Phisition may prognosticate when the Patient saith that he hath pain in the head or forehead, and that his eies are dimm or obscure, & chiefly when the Patient doth not exceed 30. or 35. yeers of age. And when the Collection or Apostume is soft and without dolour, and moveth or varieth when it is handled, it requireth longer time to be cured, than the precedent, but it is not so dangerous. And if it continue sixtie daies, and the

the Fever cease not, neither the tumor diminish, it shall come to maturation and purgation; you shall prognosticate so much of Apostumes in the belly: ꝑ Appostume then being hard, great, and with dolour, is dangerous and mortall: The soft without dolour and bolable from one place to another, is of longer continuance, but without comparison lesse dangerous.

To presage of *Apostumes* in the bottome of the *Belly in Fevers.*

THe Apostumes of ꝑ Belly doe never become so great, as those that breed under the Midriffe, and yet they are lesse which ingender unto the Navill, and most commonly they come to suppuration or putrefaction: It is a good signe when they purge by flux of blood at the nostrils from the part of the Apostume: also all such Apostumes by lapse of time, and in the end may come to putrefaction and purgation. It is then convenient to consider that the forenamed Collections or Apostumes come by divers meanes to putrefaction or purgation, for some purge altogether outwardly, and are little, round, and sharpe or pointed, they are most healthfull and least mortall: The large, grosse, and flat, spacious and not round nor sharpe, are dangerous: and those which breake & purge within the belly, although they make some tumors outwardly, are more pernicious and dangerous, than those which make no eminence outwardly, and which have not the skinne discoloured.

To presage what the matter ought to be that issueth out of *Apostumes.*

THe Corruption & matter which commeth out of Apostumes altogether white, and not unsavorie, is good and healthfull: that which is otherwise, how much the more it differs from white, so much the more is vitious and bad,

The end of the first Book.

¶ The second Book of the Presages of *Hippocrates*; and first of *Hydropsie* in Fevers.

ALL manner of *Hydropsie* with the hot fever, is dangerous and mortall: For when the Patient is molested and afflicted by any vehement fever & grievious dolour, then he dyeth. This Maladie often proceedeth of the Hepatick passion, which is the Maladie of the Liver: It happeneth also by passions in the Guts, Intestines, and Entrailes, Meseraick Vaines or Melt, and other inferiour parts: That which comes by the Entrails or Meseraick vaines and other parts, is known by Inflation in the feet, and by long and continuall flux of the body, albeit the dolour of the belly is not mitigated nor appeased, nor the belly diminished nor grown lesse. That which proceeds of the Liver is known by the signes following, viz. the Patient hath a dry cough and spitteth almost nothing, and his belly is hard and bound, in such sort, that there commeth nothing from it, but with great pain and travell: also his feet are swollen: Moreover, there are tumors and inflations sometime on the right side, sometime on the left, then they depart and dissipate, that is, they goe and returne.

To presage of the signes of *Life* and *Death*. in hot Fevers.

When the Patient is cold in the head, hands and feet, and that the sides and belly are burning and vehement hot, it is a signe of an evill and dangerous Maladie.

But

But when the sick person doth easily turn himselfe from one side to another without trouble, also when all the body is equally hot and savourie, it is a signe of salubritie. On the contrarie side, when all the members are heavie, or the armes and legs, or all the body, it is to be feared. And if the Nailes be therewith livid or leaden, one may prognosticate Death approaching. But if the Nailes, Fingers and Feet, be altogether black, it is not so dangerous a signe, especially when any other good signe doth appeare, as if the Patient feele no great dolour, and beareth it strongly, and endureth his sicknesse without anguish, albeit that which is black will fall away, and the dimme or leaden will be evacuated by Apostume.

To presage by signes taken from the *Genitors*, and *Yarde*, in Feavers.

When the Genitors and Yard are shrunke in, and apparently diminished against nature, it is a signe of great dolour, and present death. Evil signe.

To presage by *Sleeping* and *Dreaming* in Feavers.

As for sleeping and slumbring, the one is naturall and healthfull, and the other unnaturall and vicious. The naturall rest is taken in the night, and waking in the day: And although it is not altogether wholesome to sleepe from the breake of the day to 8 or 9 of the clock at morning, yet notwithstanding it is more profitable, than to sleepe in the rest of the day: But if one neither sleepe by night nor day, it is dangerous, and a signe of great dolour, of folly, of alienation of sences, reason, and understanding, either present or future

To presage by purging of the belly, or fecall excrements, in Fevers.

As for easing of the Belly, and evacuating of superfluities and excrements, it is best when the sick person followes the custome in Paladies which he did in health, and especially according to the qualitie and quantitie of his dyet. For how much the more it is dissonant and different, it is so much the worse. The naturall egestion ought not to be too liquide or adust, but indifferently proportioned and compounded in colour to the meats, and that the Patient goe to stoole without pain or dolour. And if the matter be liquide, it is not altogether to be disliked when it comes without ventositie or violence, and not often in a short time. For so it would make the person weake, debile, froward, and in danger of swonding, and death. It is also to be allowed about the end of the Paladie, that the egestion and excrementall matter become thick and not too dry, and of a good colour, as drawing neare to red and browne, and be not very unsavorie. Also if there come forth wormes about the end of the sicknesse with the excrements, it is a good signe Likwise in every Paladie the belly ought to be fleshie and not round, nor full of winde, otherwise it is no good signe. Furthermore the egestion and excrementall matter being liquid and waterie, white, or pale, greatly red or froathy, is dangerous: the mortall is black, and livide, or græne, unsavorie, and slimy. And if it be of divers of the fore-named coloures together, it is no lesse dangerous, but of longer continuance: also when there is peeling of the guts or Carbuncles and little skin, all such are mortall.

Dangerous Accidents.

Good signe.

To presage of Winde in the *Intestines*, and *Matrix*.

The ventositie and winde inclosed in the Belly, issuing gently and voluntarily, without making noyse

or

or sound, and without straining or forcing the Fundament and inferiour parts, is the best and most wholesome. That which cometh forth unconstrained, making a noyse, is better than to retain it. But if it goeth out with sound and noise against the Patients will, it signifieth dolorous torsion in the belly, or alienation and confusion of reason.

To presage of *Ventositie* causing Inflation.

The dolours recent in the belly by Inflation and tumors, and the Inflation by burning, and heat, making noise, rumbling, and motion in the belly, are cured especially by the benefit of the belly, or by expulsion of winde downward, or by Urine, or if they change the place and descend downward.

To presage by the *Urine*, in Fevers.

The Urine that is healthfull in every Maladie, ought to have the Residence in the bottome white or piramidall, having the figure of a pear or little fine apple, a good token, being sick, then it signifieth brevitie of the sicknesse, and the more that it persevereth, the more it is to be allowed and sure. And if sometime for certain daies in the Maladie it be such, and in some daies without Residence, it signifieth prolixitie of sicknes and lesse securitie, and the more it differs from the first, the worse it is. The Urine being red or high coloured with the Hipostasie, or light and equall residence, signifieth the Maladie to be longer then the precedent where there is no Hipostasie, but lesse dangerous. Also when there is grosse Resolutions, as bran or adust in the bottome of the Urine, it is an evill signe, and worse where they are like scales of fish. The Urine white and subtile, is exceeding bad, albeit the forementioned is worse where there is grosse resolutions. The cloud hanging in the Urine, signifieth securitie if it be white, for the black is dangerous; Evill signe.

gerous; Moreover, the Urine being yellow and very clear and subtill in the Maladie, sheweth continuitie of sicknesse, grosse in digestion and crudities. Therefore it is to be feared least the sick person decay before the humors come to perfect concoction, and least the Patient dye. The Urine significative of certain death and unfallible is unsavourie, slimy and muddy, as dirt and myre, and is tauny, brown, black, and thick. Furthermore, the black as well in man as woman is alwaies bad: and the subtle and the clear as water, is also mortall in little children. The Urine being raw, clear, and undigested, persevering so long in the maladie without other evill signes, but with good and healthfull, sheweth a future Apostume lower than the Diaphragme or Ribbs: The Urine having as it were a cob-web swimming above, signifieth that the person shall dye. Dry and thick it sheweth consumption of the body: you must also consider the place and colour of the cloud, for if it be nèer the bottome of the Urine, it is a good signe, having the colour nèer unto white. And if it be swimming above, and the top black, it is dangerous, and uncertain. Finally, as for the Judgement of Urines, take hèed above all, that you be not deceived by the Bladder: For they may appear such by the diseases of it: And if the Bladder be not diseased, thy judgment shall be certain, therefore take hèed.

Sure signe of Death.

Mortall signes in children.

To presage of *Vomiting*, good and bad in Fevers.

Mortall signe in vomiting.

As for Vomiting, the most healthfull and allowable is composed of Phlegme and choller, not too thick or too viscous nor superfluous: the chollerick or phlegmatick only, is viscous, the vomiting being grèen, livide, or black, is dangerous, and if it be compounded of grèene, livid, and black altogether, it is mortall. Likewise, if it be unsavourie, with one of these forenamed colours, it signifieth death approaching: For the Jus is viscous in all vomiting and every excrement.

To

To presage by the *Spittle* in Fevers.

AS for Spittle, it is said to be commendable in all pulmonick diseases and Maladies under the Ribs when it cometh early in the first daies, and beginning after the Maladie without great pain and labour, being of a red colour or mingled with blood and well digested not viscous: But if it come not in the first daies, but afterward with a vehement cough, it is no good sign; also the red not being mingled with the healthfull and commendable, is pernicious. The white spittle viscous and knottie is dangerous, but the pure red is worse. The green and fleshie giveth notice of a dangerous and bad maladie. The black above all is mortall: moreover, when the matter which ought to be purged by spitting, remaineth within the Lights and troubleth the wind-pipe, there is no securitie: The spittle also being clear or red, sanguinolent in Apostbume & pulmonick inflation coming in the beginning of the maladie, promiseth in the first daies securitie and health to the patient. But if such egestion continue to the seventh day or more, it is suspitious & uncertain. Also spittle whereby the dolour doth not cease but persever, is not commendable, but vitious. And although the black as wee have shewed before is mortall, notwithstand if the dolour doe thereby cease, it is lesse dangerous, and more healthfull.

To presage of *Neesing* in Fevers.

THe Neesing in all hot Maladies, and other how dangerous soever they be (except they proceed of the Lungs) at any time is commendable and profitable. But being with rhume and distillation at the nose in Maladies of the Lungs, whether it cometh in the maladie, or presently after, it is dangerous.

To

To presage of *Suppuration* or matter in *Apostumes.*

THe dolour above mentioned which ceaseth not by spitting, nor by the benefit of the belly, nor by phlebotomie, nor by laxative Medicines, nor good Regiment, signifieth that the Apostume cometh to Suppuration and Matter. And when the Apostume breaketh and purgeth, the Spittle being cholerick, whether the matter of the Apostume come with the Spittle, or issueth out after, it is perillous; especially when it cometh and beginneth in the seventh day or after, it is to be feared that the Patient shall die on the 14 day, if there happen no other healthfull and commendable signes.

To presage by signes of good hope and commendable in the foresaid Maladies and others.

WWhen the sick person doth strongly endure the griefe, and if he draw his breath lightly and at ease, and breathe easily without dolour, and feel not any pain, but spit without difficultie, and remove his whole body and all his members at his pleasure, without griefe or wearinesse, and that he hath no exceeding and superfluous heat in him without great thirst and drinesse, they be good signes: Moreover, if the Urine and excrements in all the conduits are in due quantitie and qualitie, and of a commendable colour and substance, as the matter fecall, also being of good consistence, and not too hard, but as in health: the sweat universall, hot, with ease, also the spittle gentle and commendable, and sleep in the night, and so of others as we have spoken, are good signes.

To presage of the signes opposite of despaire.

IF the sicknesse be intollerable, and dolour insupportable, with burning heat, and extream thirst, continuall cough,

stifnesse

stiffnesse of members, languishing, short spiration, filthy spittle, and unsavorie, Urine of a small quantitie, the matter fecall, livid, liquid, or watery and slimie, and often particular sweat and cold, without rest of the day or night, the hands, feet, and forehead cold, tossing to and fro, and all other evill signes taken in the face: By all which, or many of them, thou shalt prognosticate suddain or lingring death, without discredit or dishonor, but shalt be in great reputation and estimation.

To presage by the signes of the time and day of the Rupture of the *Apostume*.

SOme Apostumes breake and appeare on the 20 day, others differ unto 40 others to 90 dayes. Therefore to presage well, thou shalt enquire out the first day, and the beginning of the Maladie, viz. when the Patient did first feele heat and the fever, also stiffnesse and standing up of the haire, heavinesse, also dolour and pricking: Then thou shalt beginne to reckon the dayes, and by this meanes thou mayst prognosticate infallibly of the event. Thou shalt also presage if there be Apostume on the one side, or both, by this meanes: Aske the Patient if he feele dolour on the one side more than the other, then cause him to lie on the side which is sound, and if he feele heavinesse and ponderositie it followeth, that the same side where the ponderositie is, is Apostumed, and there is the collection and matter: and if he feele dolour, heat and heavinesse on both, it will follow, that both sides are Apostumed: Thou shalt know the Apostume and collection to be ripe and broken, and the matter retained in the part Apostumed, when the fever doth not cease, and it is lesse by day than night, and that the Patients sweats abundantly, and ceaseth not to cough, and voydes not almost any thing: Likewise if his eyes sink in his head, and chekes are red, the nails crooks, and the ends and extremities of the fingers turne, and the appetite decayeth.

Difference of Apostumes.

decayeth, and the feet swell, and there is almost through all the body pimples and pustules, these signes doe appeare when the matter and Apostume is of long continuance, and are certaine signes of future health. Therefore to prognosticate whether the Apostume will breake sone or late, consider that spoken of before: for if the cough in the beginning and first dayes doe oppresse the sick person with dolour and often spitting, and egestion, with difficultie of breath, you may judge that the Apostume will break within twentie dayes, and if the contrary happen that the signes be hindred, the rupture wil be prolonged: and as the signes be strong or feeble, so the ruption is inveterated or shortened. And to know if there be perill or danger, or probabilitie of health, consider the day whereon the Apostume breakes, if the fever and thirst cease, and the appetite returne, and if the fecall matter be solide, and if the matter of the Apostume be white and equally soft, and come forth without dolour and without coughing: these things are present signes of health. Otherwise when the fever doth not cease, or presently returne with great thirst, without appetite, and the fecall matter be watery, the spittle livide, greene, and slimy, and in part phlegmatick, thou mayest prognosticate death. And if there happen some good signes, and some bad, compare the one with the other, and diligently advise before thou presage, to the end thou mayest avoyd infamie. For some die presently, others are prolonged and then die in the end, others at length returne to their health.

Be well advised in prognosticating.

To presage of *Apostumes* that come about the *Eares* in pulmonick passions, or diseases of the Lunge.

When the Apostume happeneth about or under the Eares, of the sick person with difficultie of death, and that the same Apostume cometh to maturation, and purgeth and ingendereth a Fistule, it saveth the Patient. And

to

to prognosticate when it will come, ye shall note this which followeth: when the Fever continueth in the sayd malady, and the colour is permanent, the Spittle impertinent and not commendable, and the belly doth not his dutie, evacuating the choller or liquide matter, and the Urine is in small quantitie, with abundance of Residence, but all other good signes shewing securitie, then thou shalt presage the future Apostumes to be neere the Eare, especially when there is Inflamation under the sides and Diaphragme. And if there be no Inflamation nor dolour in the sayd place, but the Patient hath difficultie of breath, the which goeth away without manifest cause, then the Apostume comes above the Eare.

To presage of *Pustules* or *Apostumes* that come in the *Feet*.

IN vehement and perillous Maladies of the Lungs, there happeneth for the view and health of the Patient little pustules in the Feet, and especially when the spittle is sodainly changed from red to white, it is a most certaine signe of health, for by such spittle the pustule and dolour ceaseth, but if the spittle turne not from red to white, and that the Urine be not good, nor the residence commendable, the Patient shall bee in danger to become lame by contraction of the nerves and joyntures where the same pustule is. If the said pustule or little Apostume in the Feet be hidden and vanish away, or that it goe and come without purgation or maturation: Or else if the Apostume in the side called Peripneumonia (for it is in the Lungs) be not purged by commendable spittle, and that the Fever remaine, the Patient is in danger to lose his understanding, and thereafter to die. Furthermore, of the aforesaid pulmonick Maladies those which are aged, but not very old (as of 50 yeares) die more often than they who are yonger.

And

And young persons dye most commonly of another kinde of Apostume: Moreover, the person having great dolour in the belly lower than the Navill, or drawing nere upon the thigh with any fever: And the dolour leaving his place, doe ascend up towards the Ribbes, it is very dangerous. For then one or two evill signes doe foreshew death, but if there be many good signes, as easie spitting, white, and not unsavourie, it is a signe of evasion: The red and unsavourie is mortall: and if there be not any evill signe, there is hope that the evill will come to suppuration and matter.

To presage by the signes of the *Bladder*, in fevers.

THe hardnesse and great dolour of the Bladder is mortall, specially with quotidian fever. It hapeneth often with constipation, therefore it is mortal without remission: But if the Urine be like the matter of the Apostume, with Residence white and pointed, and thereby the dolour ceaseth, there is hope. But if the dolour be not asswaged, and the Bladder mollified, and the Fever taken away by such Urine, judge present death: and this happeneth more to Children of seaven or fourteene yeares of age, than to any others of elder age.

Mortall signe.

Some hope.

Heere endeth the second Book.

The

¶ The third Book of the Presages of Divine *Hippocrates*.

How to presage of *Fevers*.

THE end of the Fever happeneth to one, and that with death, and to another with life in the same day. And if it tend unto life, all good signes doe appeare in the first dayes, whereby thou shalt prognosticate the end in the fourth day, or before. And if the Fever be mortall, all evill signes give notice of death in the 4 day or before the first period and day of Judgement or critication, and the end or tearme of the Fever is (as we have said) in the 4 day: the second on the seventh: the 4 on the 20 day, the which number doth augment by quaternaries, and is produced to the 20 day in the Fever and hot maladies, and they ought to be numbred by whole quaternaries. For the yeare & moneth cannot be counted by number of whole and complete dayes, as by this computation, wée make thrée wékes of twentie dayes, which is called one moneth or yeare of the Moons. So after this computation and augmentation, the first shall be the 20 day, the second the 40 day, the third the 60 day, and it is to be noted, that the troville maladies are of long continuance, and of more difficile indicature, knowledge and prognostication. Therefore it must be looked unto more exactly. For their beginnings are secret, and shew no signe of digestion. If therefore you will diligently contemplate it, you shall be able to prognosticate to what end the Fever shall come. Likewise the quartan Fever observeth the foresaid matter in his critications and indicatures, or wékes of Judgement. For that which is done in others by number of dayes, in this is

done by number of fittes and periods. The short and briefe maladies are of more easie presagement and knowledge; For it changeth presently, and in the first dayes from good to better, or from bad to worse. The healthfull signes are knowne by this, that the Patient hath good easie breath, and feeles no dolour, and sleepes in the night, and other wholesome signes. The mortall or dangerous are known, when the patient hath difficultie of breath and great dolour, and resteth not in the night, with other bad signes, whereby one may prognosticate death. To the end thou mayest presage well, thou shalt consider all the signes of digestion, the time, houres, and dayes, in which the sick are most afflicted. And if the Maladie happen to women in child-birth, or soone after they be delivered, begin to reckon from the day of her delivery, and not from the day wherein the fever began. Also to speake generally, when one feeles vehement dolour in the head and continue with any fever. If there happen any evil signe with the foresaid, it is a signe of death. But if the dolour and fever continue and persever to the 20 day, thou maist presage flux of blood at the nose, or Apostumes in the inferiour parts of the body, if there be no other signe. Sometime also there happeneth in the beginning & first dayes, flux of blood at the nose, or Apostumes principally when the dolour is in the forehead & parts neere adjoyning. And it is to be noted, that the said flux of blood happeneth most often to persons of 30 or 35 yeares of age. And Apostumes or collections to those which are elder. Also if the Patient in ye continuall fever hath great dolour and Apostumes in the eare, it is a dangerous signe. For often times the person loseth his understanding, and dyeth. Therefore one ought well to speculate the good and evill signes in the beginning of the maladie: for young persons sicke of this maladie, doe often die in seven dayes: but olde persons die not so soone. For the Fever cannot be so hot in them, nor the alienation of the spirit so vehement. Therefore the Apostume commeth to maturation, suppuration

Healthfull signes.

Evill signes.

Flux of blood in the beginning.

A dangerous token.

ration and matter : But if old persons have the r... they commonly die. And the young die before that the Apostume of the eare come to maturation, except that which cometh forth be white and digested with other good signes, then they recover their health. Also if there happen in the continuall fever and hot Maladie, ulceration of the throat or windpipe, it is most dangerous and bad, especially when there happeneth other malign and mortall signes.

To presage of the *Squinancie* in the *Throat*.

ALL manner of Squinancie is dangerous, for it killeth the person presently, especially when there is no appearance of Apostume, or tumor upon the neck, or in the throat, and that he suffereth grievous dolour, and cannot aspire, nor respire, or draw his breath. Then it killeth the Patient in the first, second, third, or fourth day at the furthest. Also when eminence and great redness appeareth with vehement dolour, it is no lesse dangerous, but more tardy and of longer continuance. But where there is eminence and redness upon the neck or throat, but especially in the breast, it is more tardy and lesse dangerous, than the superior kinds. And if it doe not hide it self and goe in again, it is a good signe. But if the said Squinancie and tumor doth augment in the day of critication, and that it doe not purge outwardly, or by the spittle, although the diseased person feel himself eased, and without great dolour : it is an evill signe and mortall, or signe of Relapse. It is then a better signe and lesse dangerous, when the tumor and redness appeareth outwardly. For if it descend unto the lungs, the patient is in danger to lose his understanding, although sometimes the said collection come to suppuration, matter, and purgation.

To presage of the *Vvula*, *Gargarion*, or *Collumella*.

IT is a thing dangerous and mortall to incise the Vvula, Gargarion, or Collumella being swollen, grosse or red. For either it is found in the Apostume, and Inflamation, or else there followeth great flux of blood. Therefore one must labour to heal and cure the Patient by some other means. And if he cannot, and that it be livid or pale, and that the superiour part be little, and not tumified nor swollen, but the inferiour part tumified and round, you may without danger incise and open it, and so cure it. And if you know that the Patient is not in danger to fall into suffocation, and so die, the chief thing shall be to purg the belly, if you have the opportunitie and time.

Here doth divine *Hippocrates* return to speak of Fevers.

Signe of Apostume.

WHen the hot Fever doth not cease, nor give rest to the Patient in one or moe daies of critication, without other good signes thou maist prognosticate Relapse. And the Fever with healthfull signs is when the Patient is not molested with great dolour, nor labour, and that there is no other manifest cause, thou maist prognosticate Apostume and Inflamation in the winters, and inferiour parts, and specially to those who doe not exceed 30. or 35. yeers. Nevertheless, the same apostume doth not often happen before the 20. day of the Fever, specially to those who are aged: although that the Fever continue longer to old persons, than to young: such apostume also doth happen commonly in continuall Fevers, which keepeth no order nor manner of accesse or fitts, called wandering or uncertain Fevers, viz. afflicting easily twise or thrise a day, then ceasing as long, and afterward returning without observing any order: Oftentimes they change into quartan fevers, especially about harvest. And as the aforesaid apostume doth happen most often to young persons, so the quartan fever happeneth to men and women that are in yeers. And as for the nature of the Apostumes, they doe most usually and commonly happen in

winter

winter, but are most slow, and prolixe, and lesse sub, relaxe.

To presage by signes of vomiting in Fevers.

WHen it seems to that febrecitant that there are flies and black things appear before his eies, with dolor in the head, without other bad signes or mortall, thou mayest presage vomiting of yellow choller, especially when the patient feels dolour at the mouth, or opening of the stomack. And if he feel stiffenes, chilnes, or cold with it, in the inferiour parts, and under the *Hypochondria*, the vomiting shall be so much the more hastened. And if the patient doe then eat and take repast he shall presently vomit. And to presage most apparantly when the dolor of the head molesteth the person in the first day of the fever, and be augmented the fourth or fift day, the fever will end on the seventh, and the person shall be cured. And if the dolor begin the third day, and augment in the fift or seventh, the fever shall end the ninth or eleventh day. And if the dolor begin the fift day with convenient urine, and other good signes it shall end the 24. day, and this happeneth as well in women, as in men, & especially in tertian fevers to persons of 30. years of age, and to young persons in continuall fevers, and perfect tertians. And when there doe not appear flies in the fever with dolor of the head, nor black things coruscant and resplendent or shining as lamps, and splendor, or britenesse, and that the patient feels tortion, or tumor or inflation under one of the sides, he shall have in place of vomiting, inflamation, and of dolor, flux of blood at nose, and this happeneth chiefly to young persons under 30. years, and to older most commonly vomiting. And yong children under 7. years old fall into a swound by hot fevers, specially when they are bound or constipated in the belly, and sleep and change colour, sometime pale, then red, green, or livid: but those which exceed 7. or 8 years, they fall most often into a swound, if there happen not some perilous and dangerous signes, as of Phrensie.

The Conclusion of the whole Book of the Presages of *Hippocrates*.

NOw then for finall conclusion, let the Phisition labour to know the sick persons and maladies: also the good and wholesome, and the evill and mortall accidents of them, as well in young folks, as old, and in all infirmities, especially fevers, to the end to presage life to one, and death to another: also the brevitie and prolixitie of every maladie, and the transmutations and other inconveniences, collecting and accumulating all signes good and bad, and considering and comparing the superiour and inferiour, which are able to overthrow, or save the patient, and that by urine, fecall matter, spittle, sweat, and other excrements and superfluities coming out of the body. Moreover, let him practise to consider, and speculate, or note as well the time of daies present, as past, viz. the variation of weather by winds, cold, heat, drought, and humiditie, and the condition of the whole yeer, and four parts: as the Spring, Summer, Harvest, and Winter. For although that all maladies may happen at all times, yet some doe more commonly happen at one time than another. And some signes that be good or bad, come and happen rather in one day, hour, or moment, than in another. And to the end thou maist not doubt to presage and prognosticate according to the doctrine and prescribed instructions, know that we have here experimented these things in Æthiopia, Mauritania, Lybia, in the Ile of Delos, in Hesperia and Scythia, briefly in the Orient, Occident, South, and North: and have found it true as wee have shewed. And therefore doe not despaire, but take courage, and endevour thy self to know the said things, and thou shalt easily attain to greater knowledg of things, than thou canst imagine, and shalt marvaile how these things can so well concurre, and succeed so rightly. And if thou doest well ponderate my principles

To presage of life or death.

ciples, doubt not at last that there can happen any mat-
to thée, whereof thou mayst doubt, or cannot have t-
knowledge of: and that by the said instructions, if thou doest
understand them well, and especially in these which ob-
serve dayes of affliction, and manner of Paroxysme,
and which end in one certaine number of dayes
and certaine space, as wée have said,
if thou wilt speculate exactly,
and take mature de-
liberation.
(***)

FINIS

At the Stone Cutters
in Keolyan Fields

This is Mr Bancrofts