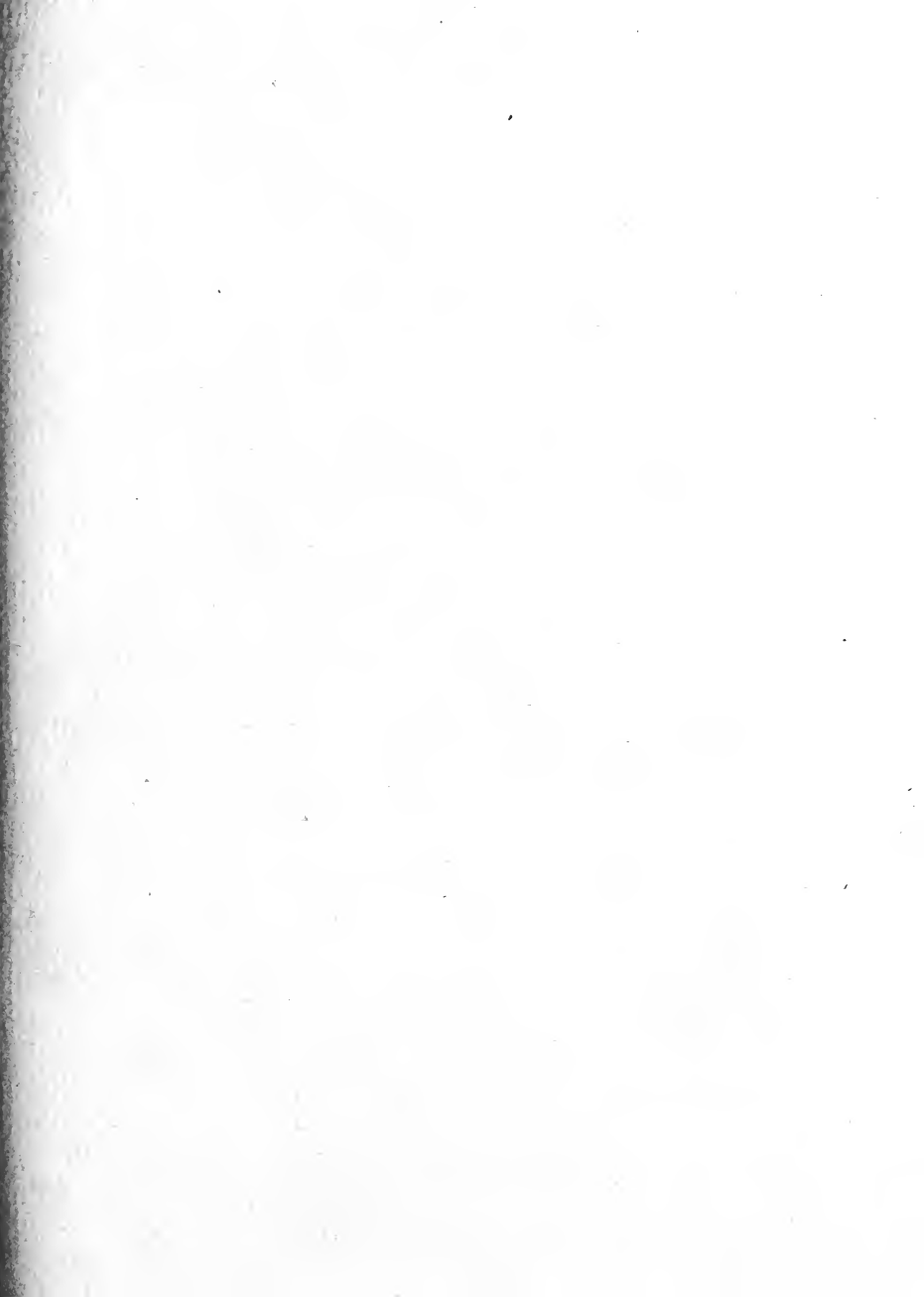


BOSTON MEDICAL LIBRARY
in the Francis A. Countway
Library of Medicine ~ *Boston*



Digitized by the Internet Archive
in 2011 with funding from
Open Knowledge Commons and Harvard Medical School

<http://www.archive.org/details/surgionsmateortr00wood>

THE
SURGIONS
MATE,

OR

A TREATISE DISCOVERING faithfully and plainly the due contents of the SURGIONS Chest, the uses of the Instruments, the vertues and operations of the Medicines, the cures of the most frequent diseases at SEA:

Namely

Wounds, Apostumes, Ulcers, Fistulaes, Fractures, Dislocations, with the true maner of Amputation, the cure of the Scuruie, the Fluxes of the belly, of the Collica and Illiaca Passio, Tenasimus, and exitus Ani, the Callenture;

WITH A BRIEF EXPLANATION of Sal, Sulphur, and Mercury; with certaine Characters, and tearmes of Arte.

Published chiefly for the benefit of young Sea-Surgions, imployed in the *East-India* Companies affaires.

By *John Woodall* M^r in Chirurgery.

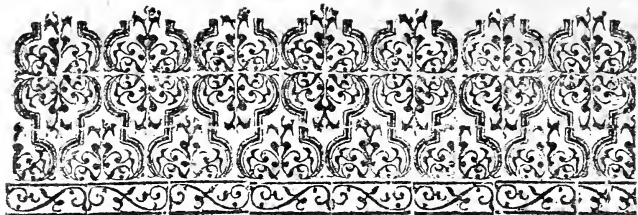
LONDON

Printed by EDWARD GRIFFIN for *Laurence Lisse*, at the *Tygers-head* in *Pauls Church-yard*. 1617.

Kennedy

POSTAL SERVICE
UNITED STATES DEPARTMENT OF COMMERCE
WASHINGTON, D. C. 20260

UNITED STATES DEPARTMENT OF COMMERCE
WASHINGTON, D. C. 20260



TO THE FARRE

renowmed, vertuous, and worthy

Knight, Sir THOMAS SMITH;

Gouernour of the East-India Company,

my singular good Patrone.

RIGHT WORSHIPFULL,



Hen I call to minde
the many great fa-
uours which you
haue beene plea-
sed from time to
time to conferre vp-
on me; and do con-
sider that Ingrati-

tude euen amongst the Heathen people
hath euer been esteemed Inhumanity; I can-
not but reprehend my selfe of slacknesse and

The Epistle Dedicatorie.

negligence in not performing that dutie whereunto I am so farre obliged: wherefore studying how I might best testifie my gratefull affection, I haue here presumed with the poore Gardner who presented *Alexander* with such fruits as his garden afforded, to present you with the first fruits of my poore studies and practice, humbly requesting that as *Vlisses* vnder the sheild of *Ajax* was defended, so these my vnworthy lines may by your Honourable accustomed fauour be patronized from the enuie of malicious Detractors. By whose honourable vertues of vigilance, prudence, and bounty the Common-wealth hath so much beene enriched and honoured. The reason of my gathering these instructions for young Surgions, cheifly was in respect of the discharge of my dutie in my office and calling, being appointed by your Worship, and the East-India Company, out of your especiall providence and great care for the health and preferuation of such as haue beene or hereafter may be employed in your seruices, who haue for the same purpose not onely appointed me, and with an annuall stipent re-
warded

The Epistle Dedicatorie.

ded me, for to ouer-see and provide for their healths all things fitting ; but also are well pleased and contented that it be liberally and fully accomplished with all necessaries thereunto belonging without sparing reasonable coste : the which considered, and seeing by my experience that many young Surgions, (who by reason of their youth and lacke of practise haue not attained to that perfection of knowledge, that were requisite) yet neuerthelesse are imployed in the East-India and other voyages in places of Chirurgions and Mates , I haue thought it a part of my dutie in the place I haue vndertaken, according to that talent of knowledge wherewith God hath inabled mee, to to giue some directions for the weaker sort of such Surgions , that they may the better be able to vndertake their charge , and also to vnderstand the true contents of their Chests, and profitably to practise as occasion shal require. And for their better furtherance and knowledge therein , I haue reduced the same into a methode, and therein deciphered the seuerall Instruments, and Medicines with their particular vses : which

The Epistle Dedicatorie.

again I humbly craue your Worship with a fauourable construction to accept of, as an vndoubted testimony of that dutifull respect which by particular obligation I am bound euer to acknowledge to so honourable a Patrone, to whom with my best indeuours I shall remaine most deuoted, and euer rest

Your Worships obliged

seruant during life

I. W. Chirurgus.



TO THE WORSHIPFULL

M. Christopher Frederick, M. Iohn Kerrell, M. Lewis Rogers, M. Iasper Aris,
Masters and Governours.

To Master R. Wood, M. Pecke,
M. Mapes, and M. Fenton,
auncient Masters.

To my fellow brethren of the clothing, or
Liuery : And to all the rest of that worshipfull
mysterie and fellowship of Barber-
S V R G I O N S.



WORSHIPFULL, reuerend, and
beloued, he that hideth his finnes from
the Almighty indangereth his owne
soule, and he that would hide his illi-
terate weaknesse from the worlds vnequall censure
sheweth no discretion to lay himselfe open in print. In
this worke I follow not the course of some worldly
wise, that cary a wallet about their neckes with their
neighbours faults before them, obseruing euery light
digression in them ; but as for their owne errors they
are

are not once capable of them. But I on the contrary blaze forth my imperfections, confessing them to the admonishment of others, and therefore claime from your grauer censures a pardon of course. It was the necessity of my calling urged mee thus rashly on the suddaine to put my selfe forward, and in this weake manner to shew forth my homely extempore altogether vndigested; my desires climbing noe so heigh as to attempt any worke worthy your acceptance, neither will my education (as you know) afford it, for I esteeme my selfe amongst you but as a weake shrube or vnderwood, desirous to be shrouded from terrible blasts by great Cedars: If therefore by my iust and vnfained acknowledgement my vnrworthy labours may finde a fauourable passage, and be acceptable, I haue attained my desire with comfort. And so I take my leaue, wishing you all the fruition of vnfained loue with perfect happinesse, externall, internall, and eternall.



I. VV.





TO THE BENEVO- lent Reader.



Vrteous Reader, when I had entered into consideration with my selfe of my owne weaknesse and insufficiency, I became much discouraged from uttering the same to the worlds censure, knowing how many learned Artists this age affordeth of farr more excellent gifts then my selfe: yet waighing againe the sundry benefits might arise by such plaine helpes as this homely treatise affordeth to young practitioners, & the silence of my betters in undertaking the like, I imboldned my selfe thereunto in discharge of Christian duty to God and my Country, being appointed by the Honourable society of Merchants trading to the East Indies, to furnish with medicines, such Surgeons as they employed thither, amongst which number, though I must confesse I finde diuers learned and skilfull men farre beyond my selfe: yet againe, very many so weake and insufficient, as I cannot but lament their insufficiency to the great offence of God, and the danger of many mens liues. Wherefore in this regard I held it a charitable worke, howsoever the world taketh it, to instruct such young men as were employed to the East Indies the best I could, as well for Conscience sake, and for the comforts of their charge: namely for the safe

To the Reader.

guard of the lines of such as should be employed in those businesses; which I haue from time to time done by writing, and being wearied with writing for euery shippe the same instructions a new, I held it my best course to put them in print, which done, will serue for any that haue occasion of the like, till some of deeper iudgement write better. The compositions of the greater part of the following medicines are recited in the ordinary dispensatories, and concerning diuers particular medicines therein mentioned, not vsuall amongst our Artists, though neyther new nor inuented by mee, I purpose, God willing, as soone as I can haue time to publish: also their true preparations & uses, hauing receiued some of them from learned Physitians, and expert Surgeons amongst my good friends here and there as I could gather them, being things of their owne experience, and to me now confirmed by mine also. And if any one of my brethren doe finde himselfe not satisfied at this sodaine and vndigested worke of mine, let him onely cease to censure it till he haue put forth somewhat of his owne. I am not ignorant that a sort of Carpers these times afford, who though of themselues they will spare no time from their pleasures or profits, to aduantage others, yet are they so sharpe of wit, and can so well dispute, and so wisely reason, that they can easily make Candida de nigris & de candentibus atra; their words being as Oracles to their owne applauders, in whose opinions they onely haue the keyes of Art at their girdles: but to any such I say as a learned Diuine lately said to the like.

Cum tua non edas carpis mea Carmina, Lely,
Carpere vel noli nostra vel ede tua.
Sloth sits and censures what the indutrious teach,
Foxes dispraise the grapes they cannot reach.

Some

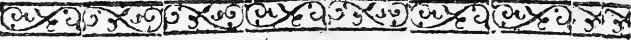
To the Reader.

Some haue already accused me to haue lost time in writing of the cures of diuers diseases, farre better written of by others, which I cannot denie, yet say if each Surgeons mate had experience, with a library and iudgement to vse it, my labour I confesse were idle, and to such as haue those helps, or that perfection I write not, and to that party I answere; if one wise man in former ages haue approoued another in writing both of one and the same subiect, me thinks it is as easie for one foole in this age to winke at an others faults and weakenesses; especially such as haue neither wit nor will to write a better: and as for wise men, I know they will iudge like themselues. But who can satisfie a foole? and so I conclude with this following verse:

Wem's gliedt gefelt vnd nüt; sein wurde
Dem selbigen sey es preparirte
Wer aber vnwill hat darvon
Der behalt sein gelt abnd laß; es stan.

Ianuarie the 28.

JOHN WOODALL.


THE OFFICE AND
DV TY OF THE SVR-
G I O N S M A T E.



Having an intent to set downe instructions for Surgions Mates, out of my loue to them, I thought it meete in a word or two to put them in minde also of their duties. The office and dutie of the Surgions Mate may (in my opinion) well be diuided into three parts, whereof the first concerneth his duty to God, who seeth not as men see, who is a searcher of the heart, and knoweth mans thoughts long before, whom if hee and I haue the grace to honour with our whole hearts, and feare, he will direct our waies aright.

The second duty of the Surgions Mate, is, concerning the chiefe Surgion, who is his Mate, towards whom he must be carefull to behaue himselfe wisely, louingly, and diligently: in many respects hee is obliged to his Mate, as the wife is to her husband; for he ought to be to him in euery point ready to obey his reasonable will, I meane only in things concerning his calling, dutifull, diligent, willing, carefull, secret and louing, yea and to shew his loue euen in couering his Mates weaknesse: he ought also to be gentle, and kinde in speech, and actions towards all: pittifull to them that are diseased, and diligent in ministring to them such fitting remedies as he shall receiue, or be directed to giue them from his Mate, but none without his order, for that his

his Mates order is his discharge, or warrant whatsoever happen, yet let him priuately lend his best aduice to his Mate, vpon euery needful occasion kindly, submissiuely, & louingly, euer as vnder correction; for if comparisons or opposition take place twixt them, it is not onely dangerous to all the Company, but also a disgrace to themselues and a great scandall to their calling: for auoyding which, it is iust that the younger obey the elder, & beware of the contrary lest it bee repented too late. S. PAVL aduiseeth seruants to obey froward Masters, so I aduise Surgions Mates to doe the like to froward Surgions, for it sheweth no excellent thing in a young man to please an honest quiet man but to liue in loue with an ambitions or otherwise a froward vicious man sheweth wisdom in the sufferer. I would not so stand vpon this point but that my experience hath knowne too much the great harm that hath insued by the dissention of the Surgion and his Mate in long voiages, the which with discretion and loue might haue bene preuented if but one of them both had bene wise. The Surgions Mate ought also daily to visite the Cabines of men, to see who hath any sicknesse or Imperfection: also to haue ready against occasion Lint made, Plasters spread, Splints armed, Needles prepared, for stitching wounds; Rowlers and Boulsters, Dorsfels, Tents, Buttons, Cappes, Pledgents, Tape, rowling Needles, and Thred prepared, and each other needfull thing for his calling readie in their conuenient places, placed against occasion be. Likewise his care must bee to keepe all the In-

The office and dutie

struments of the Chest, and of his owne box cleane from rusting, and to set his Lancets and Rasors as oft as neede is, it may be he will say to himselfe it is a base office belonging to meere Barbers and Grinders, I neuer gaue any minde to it, &c. But let mee frienly tell the Surgions Mate, it is the credit of a young Artift to take a vaine smoothly and neate, as also to shauewell is praise worthy, wherfore I wish him to practise to doe it, and to be euer learning, for I assure him he shall neuer know halfe hee ought to know though he doe his best.

Thirdly if he enter into consideration wherfore he goeth to Sea, and hazardeth his life, I suppose it is to gaine, or he is vnwise: if to gaine, the chiefe gaine he can intend being a Mate, is knowledge in his calling, then let him consider wisely how hee may best apply himselfe to effect such gains, namely by obseruing the whole passages of the diseased people, considering both when they began to bee sicke, as neere as he can, the causes thereof, what hath bene applied either inwardly or outwardly, what operation the medicine had, and so of euery diseased person, and euery medicine giuen, and to keepe a Iornall in writing of the daily passages of the voiage in that kinde, and that as well of the vn-successiue applications, as of the successiue, he shall finde great benefit in both: Likewise what alterations of operations he findeth in each medicine, and what medicines keepe their force longest, & what perish soonest. Also what variety the climate causeth, of the Doses as well of the laxatiue as opiate Medicines. I heartily wish each Surgions Mate
were

of the Surgions Mate.

were carefull in these points. Another good way for him to learne is, to read much, I meane in Chirurgery and Phisicke, and well to consider & beare in minde what he reades, that as he hath neede of the helpe of his bookes hee may againe finde the thing he once read, it will turne much to his profit, for otherwise what vse hath a man of reading if he forget it presently? If a Surgions Mate spend his time wisely in the premises he may do good seruice to God, his Countrey, and himselfe, and the benefit will be his, namely Gods fauour, preferment and a good reputation in the world will bee gained therby, which will bring abundance of good things with it, which God grant for his mercy sake. And were it not that I haue intended this plaine treatise wholly to the Surgions Mate, I would in a word or two put the young sea Surgion himselfe in mind of his charge, by admonishing him of some errors too grosse, which I haue obserued to haue beene committed by some, that he might auoide the like in himselfe.

The first error some young Surgions are posselt with, from which infinite others grow, is the want of the seruice of God, the example wherof to their Mates is very infectious, and this bringeth with it a blaspheming the name of the Almighty, a generall deboist and base kinde of habite on them, ready for all vnprofitable, idle, and vnseemly actions, and vnapt for to prosecute any good thing, either in their callings, or otherwise: and if they seem to be any thing, it is in boasting and braue phrases, censuring other in many things, but not feeling their
owne

The office and dutie, &c.

owne wretchednes at all. Being giuen and dedicated to the pot and Tobacco-pipe in such an vnreasonable measure that therby they become in themselves base, despising vertue and commending vice. And to their Mates they shew themselves most vnkind, keeping that little knowledge they haue from them, not instructing them at all in their Science, and holding them in more base subiection then their Masters euer did in their Apprentiships. And of a proud lasie disposition, commaunding them without due instructions, to doe the whole buinesses when indeed themselves ought to put to their hands, euen to those parts of Surgery which they esteeme base; for the most lamentable diseases of poore men require the most care of the Surgion, as for example, the vlcérations & slidings downe of *Ani* or the *Ars-gut*, which some in disdainning to do their office offomenting, comforting, & restoring thereof to the due place most inhumanely haue cut it off, when with as good a conscience they might haue cut their Patient his throate, and the same I say to him that is negligent, & suffereth such to perish in their infirmities, without doing his utmost diligence. I could name some of the parties that haue so much disgraced themselves and the noble Science; but I will bee charitable, hoping they will amend. And conclude with an old Grammer verse worthy the remembrance of all men:

Fælix quem faciunt aliena pericula cautum.

Thine *J. W.*



A NOTE OF THE PARTICULAR
Ingredients due to the Surgeons
Chest, and of other necessary Appendexes
seruing for Chirurgicall vses, whereof these next
recited may be placed on the lidde of the Chest,
if the Surgeon will haue it so.

Incision knives.
Dismembring knives.
Catlings.
Rasors.
Trapan.
Leuatories.
Head-Sawes.
Dismembring Sawes.
Dismembring Nippers.
Mallet and Chizell.
Speculum Oris.
Speculum Oris with a Screw.
Speculum Lingua.
Speculum Ani.
Cautrizing Irons.
Storks bills.
Rauens bills.
Crowes bills.
Terebellum.

Incision stieres.
Probes or stamules.
Spatulaes great and small.
Spatulum Mondani.

For teeth. { Paces.
Pullicans.
Forcers or punches.
Crowes bills.
Flegmes.
Graners.
Small files.

One bundle of small German Instru-
ments.

Glister Sirings.
Small Sirings.
Catheter.
Waxe Lights.

These for the lidde of the
Chest.

The particulars of the Surgeons Chest.

The rest that follow are not lesse necessary then the former for their particular v-
ses, namely.

The Saluatory furnished with such Vnguents as hereafter in their places are named.

The Plaster boxe furnished with the due instruments and medicines thereunto belonging.

The Instruments for the Plaster box are as followeth.

Sizers.

Forceps.

Spainele.

Probe.

Stitching quill and needles.

Lancet.

Burræ pipe.

Leuatory.

Vvula spoone, &c.

Cupping glasses.

Brasse Bason.

Bloud porringers.

Ditt pot.

Skillet.

Chasing-dish.

Glisten pot.

Funnell.

Cups to giue potions in.

One board to spread plasters.

Morter and Pestell.

Waights and scales.

Sives.

Searces.

Strainers.

Splints.

Iuncks.

Tape.

Towe.

Spunges.

Clouts.

Rowlers.

Gray paper.

White paper.

Empty pots.

Glasses.

Thred and needles.

Waxelights.

Lanthorne.

Tinder-boxe furnished.

Inke and Quilles.

1 Close stoole.

1 Bed stoole and a brasse paille.

Brickes to heat vpon occasion.

Pipkins.

Empty bags.

Skins of Lether.

The particulars of such Empla-
sters as are most common in
vse by Sea Surgeons.

Emplastrum. { *Stipt: paracelsi.*
Diachilum cum gummis.
Diachilum simplex.
Diachalcitheos.
Oxicrotium.
Mellilotum pro splene.
Mellilotum simplex.
De Lapide Calaminari.
de Mino.
Callidum or spiced plaster.

Vnguents

The particulars of the Surgeons Chest.

Vnguents most in use in the Surgeons Chest.

Vnguentura.

Bazillicon.
Apostolorum.
Aureum.
Aegyptiacum.
Albū Camphoratū.
Diapompholigos.
Pectorale.
Rosarum.
Nutritum.
Populeon.
De Melle & Sapo.
Contra Ignem.
Contra Scorbentum.
Dialthea composita.
Dialthea simplex.
Potabile.
Mercurij.
Linamentum arcei.
Aragon.
Martiatum.
Axungia porcina.
Axungia Cervi.
Mel simplex.

Anniseed.
Absinthij.
Melissa.
Angelica.
Mintba.
Cardui sancti.
Tberiacalis.

Rosa Damaski.
Rosa Rub.
Odorifera.
Plantaginis.
Falopy.
Viridis.
Aqua fortis.
Veruico.
Lotion.
Liuium forte.
& Commune.
Acetum Rosarum.
Acetum Vini.
Spiritus { *Vini.*
 { *Vitrioli.*
 { *Terebintina.*
Causticka liquid.

Waters or liquors fitting the Surgeons Chest.

Aqua

Celestis.
D. Steuens.
Rosa solis.
Cinamou.
Limoniorum.
Rosemary.
Sassafra.

Sal

Absinthij.
Gemma.
Nitra.

Oleum

Rosarum.
Anethinum.
Chamomeli.
Lumbricorum.
Liliorum.
Hipericonis simplex.
Hipericonis cum gummis.
Balmi Artificialis.

The Particulars of the Surgeons Chest.

Oleum { *Sambucorum.*
Ol: Lini.
Olorum.
Laurini.
Absinthij.
Papaueris.
Petroleum.
Scorpionis.
Amigdalarum dul.
Amigda: amarar.
Balsami: naturalis.

Syrups { *Oximell simplex.*
Mel Rosarum.
Diamorum.
Raphane siluest.
Prunellorum.

Conferue { *Rosarum.*
Anthos.
Berberorum.
Citoniorum.
Liuile.
Prunellorum.

Chymicall Oyles.

Vitrioli.
Sulphuris per campanum.
Gariophilorum.
Macis.
Philosophorum.
Amise.
Terbinthina.
Iunperr.
Spice.
Antimonij.
Succini.
Absinthij.
Origani.

Eleuariz. { *Diacatholicon.*
Diaphenicon.
Diaprunum.
Conf. Fameck.
Desucco Rosarum.
Diatrionpiperion.
Theriace Londini.
Conf. Alkermes.
de Ovo.
Mithridatum damo:
The: Andromace.
The: Diateseron.

Syrups.

Syrups { *Absinthij.*
Limoniorum.
Papaueris.
Cinamomi.
Rosarum simplex.
Solanum.
Violarum.

Opiats. { *Laudanum paracelsi.*
Diagordium.
Diacodion.
Philonium romanum.
Persicum.
Tarsensi.
Auric Alexandrine.
Absinthie.
Acatie.
Licorice.
Limoni.
Pulpa Tamarindarum.

Succus.

Agaricum

The particulars of the Surgions Chest.

Agaricum.
Aurea.
 Pills } *Chochia.*
 } *De Euphorbio.*
 } *De Cambogia.*
 } *Ruffy.*
 Pulvis } *Benedict Laxative.*
 laxatus. } *Arthreticus.*
 Trochiscus } *Absinthia.*
 } *Albandall.*
 } *De Spodio.*
 } *De Minio.*
 Simples.

Foliorum sena.
Rhabarbare.
Agaricum.
Scamonia.
Alocs.
Hermoadactils.
Polipodium.
Dens Elephantis.
Cornu cervi.
Euphorbij.
Turbitb.
Mirabulanorum.
Cambogia.
Cassia fistula.

Certaine other Simples.

Crocus.
Opium.
China.
Sarssaparilla.
Sassafras.
Guaiacum.
Cortex guaiaca.

Cortex granatorum.
Licorice.
Hordia com.
Hordia gallica.
Semen anisa.
Feniculi.
Carraway.
Cumini.
Petrocelini.
Lini.
Fenigrece.
Anethe.
Papaveris.
Plantaginis.
Sem. quatuor frigide.
Maioris.
Minoris.
Saccarum.
Amigdalorum.
Vua passa.
Amillum.

Spices, viz.

Sinamone.
Macis.
Piper.
Cloues.
Nuces Muscati.

Gurames.

Guiaice.
Opoponax.
Bdelium.
Amoniacum.
Sagapenum.
Galbanum.
Myrrhe.

The particulars of the Surgions Chest.

Masticke.
Laudanum.
Storax calamintha.
Liquida.
Beniamen.
Tragagantum.
Pix nautalis.
Resina.
Succinum.

Other needfull Simples of
diuers kinds.

Cera citrina.
Mummiā.
Sparmaceti.
Sanguis Draconis.
Lupines.
Cantharides.
Campbora.
Spodium.
Sumach.
Galls.
Bolus vere.
Bolus cōmūnis.

Mineralls.

Antimonium or Stibium.
Sulphur.
Alumen rocha.
Vitriolum commune.
Vitriolum album.

Cerusa venetia.
Lithargum aureum.
Viride aes.
Tutia.

Baccæ { *Iuniperi.*
 { *Lauri.*

Ferni { *Triticici.*
 { *Fabarum.*
 { *Hordei.*
 { *Furfuris.*
 { *Volatilis.*

Herbes most fit to be
carried.

Herbæ. { *Rosmarinus.*
 { *Mentha.*
 { *Melilotum.*
 { *Salvia.*
 { *Thimum.*
 { *Absinthium.*
 { *Carduus benedictus.*
 { *Mellissa.*
 { *Sabina.*

Radices { *Althea.*
 { *Raphana siluestres.*
 { *Peritrum.*
 { *Angelica.*
 { *Consolida.*

Calx viua.
Album grecum.

And



And for that the Surgions Mate
by due consequent is to be Barber to the Ships
Company, he ought not to be want-
ing of these following ne-
cessaries.

One Barbers case containing.

Raisors.

Sizers.

Combes.

Combe-brush.

Eare picker.

Mullets.

Grauers.

Flegmes.

Paring knives.

Looking glasse.

Also Aprons.

Shaving lincn.

Water-pot.

Sweet-water.

Washing-bals.

Hoans.

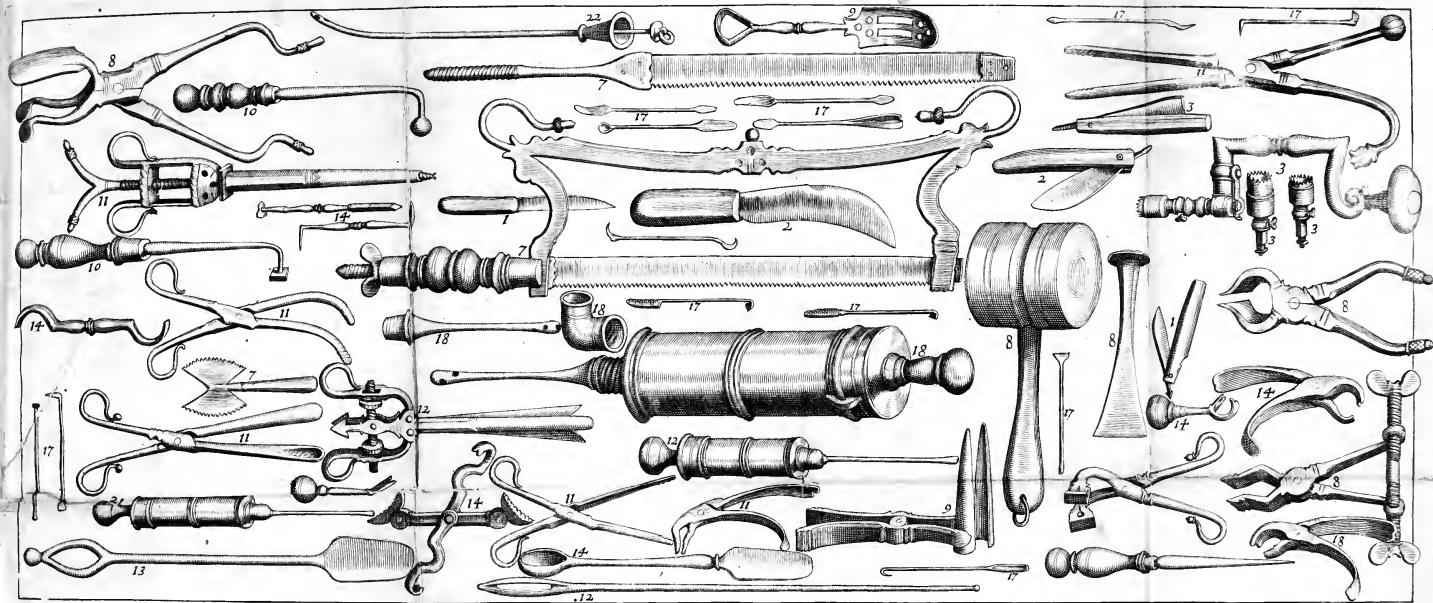
Whet-stones.

*Basons, and what else is ne-
cessarie to the Barbers
profession.*

Courteous

Courteous Reader these errors and diuers others
omitted, I desire thee as thou shalt finde them in
reading, thou wouldest be pleased to
amend them with thy penne.

PAg. 14 *à fine* l. 4. read scemes for ph'emes p. 19 l. *à fine* 5. saue
for same. p. 24. l. 4 with for which. p. 27. l. 24. read the lips, the
sides. p. 36. l. 7. Z iij for Z iij & l. 9 Z j for Z j. p. 37. l. 4 & l. 5.
pepper for paper. p. 40. l. 9 scabs for stabs. p. 62. l. 23. duffified for
dulcified. p. 63. l. *à fine* 7. spread for speed. p. 73. l. 6. ether for agreecth.
p. 91 l. 7. flaxæ for flauæ. p. 92. l. 2. Archeticus for Arthriticus p. 96. l. 15.
Cambodigia for Cambogia. p. 99. l. 13. abiterfed for absterfue. p. 101.
l. 4 allaieth for preuaileth. p. 105. Hernaes for Herniaes. p. 108. l. *vlt.*
read to be drunke. p. 117. l. *à fine* 2. farnia for farina p. 123. Wnerritanus
for Quercitanus. & l. 22. Valeius for Valerius, Rorlandus for Rulandus,
Zollius for Ctollius, Dorucretius for Dornreilius. p. 128. l. 19. affected
for effected. p. 132. l. *à fine* alstringent for astringents. p. 138 *à fine* 3. read
inflammations appeare som etimes. p. 142. l. *à fine* 5. steeling for stea-
ling. p. 148. l. 13. allefcens for albescens p. 150. l. *à fine* 8. Viachilon for
Diachilon. p. 153 l. 20. obsterfue for absterfue, & *à fine* l. 5. read for the
forthwith. p. 154. obsterfue for absterfue. p. 161. l. 25. time for tic. p.
165. l. 8 iegge for legge. p. 168. l. 19. iudication for indication. p. 176.
l. 16. scarre for Eskarre. p. 184. l. 8. Pipula for Pilula. p. 197. l. 5. in mar-
gine instation for inflation. & l. *à fine* 9. referued for receiued. p. 199.
l. 24. read branne M j p. 212. l. *à fine* 9. easily for casly. p. 216. l. 24. heard
for he art. p. 229. nutistæ for nucistæ. p. 280. l. *à fine* 2. stra for strange.
p. 305. l. 5. read swist is thy tongue. p. 338. l. 13. ribellation for cribel a-
tion. p. 339. l. 21. sodid for sordid. p. 341. l. 24. Stellidium for stellici-
dium p. 347. l. 15. relecting for reflecting.



Gentle Reader the uses of each of these Instruments are touched in y^e precedent pages according to the number of the severall Figures noted by each Instrument.





CERTAIN E BREIFE
Remembrances touching the par-
ticular Instruments for the SURGIONS
CHEST, and the vses of the same.

*And first of the vses of the Incision
Knife.*



THE vses of the incision knife are many: namely, to enter the *cutis* or skin vpon euery iust cause, wherein I aduise the Surgions Mate not to be too forward, or too rash, but to take good aduise, namely, if the Patient may by any better way else receiue health, that he forbear incision, if not, let him proceed in the name of God. But note well that this instrument is farre lesse vsed amongst discreet Artists of our time, then it was in former ages, for it was euer accustomed to be at hand for the opening of any A posteme superated, many of which now are farre more conueniently done by causticke medicines: for in truth it is a grosse error in the Surgion, and painfull to the Patient ordinarily as some doeto open Tumors by incision, and put tents into the orifice, by which occasion in short time the Artist is inforced either to new incision, or to dilate the orifice with a sponge, or Elder or Gentian rootes, thereby also including the peccant matter within the apostemated part, which ought to haue continuall passage, whereas the causticke medicine saueth all that labor,

*Great care to be
had in Incision.*

*Incisions by
causticke medi-
cines.*

*Tumors not to
be incised
Evils attending
Tumors incised.*

*Apoftemes in
the mouth to be
incised rather
with a Lancee
then with a
knife.*

*Cautions in In-
cisions to be ob-
serued.*

*Two incision
knives needfull.*

with great honour to the Artift, and no fmall profit and conueniencè to the difeafed. But as touching fmall Apoftemes in the mouth, throat, and gummies, Incifion is beft: in which caſe I hold a fine launcer is moſt comely, and much fitter then a larger incifion knife: And note that in all incifions whatſoever to be made in any part of the body, it behoueth the Surgion to regard if he incife deepe, that he doe it as neere as he can according to the length of the Muſcles, and alſo it is commendable in an Artift to bee very carefull to hide his sharpe instruments euer as much as is poſſible from the ſight of the Patient, for many reaſons too long to recite. Only in concluſion note, that it is very fit and needfull for the Surgion to haue at the leaſt two incifion knives, one greater, one leſſe, and that he keepe them sharpe and cleane; but let them not be ſo thinne grownde in the edge as the Raſor, for then they will deceiue the workeman, when hee hath moſt uſe of them. Thus much at this time of the incifion knife.

*Of the diſmembriſg knife, and of the
Catlinge.*

Their uſe.

*The Inciſion
knife required
in diſmembriſg*

THeſe two instruments are to be uſed in diſmembriſg: as namely, they are to amputate, or to take of any offenſiue member or part of mans body: I meane all the fleſhie part, or whatſoever may bee incised euen to the bone. And alſo in diſmembriſg of the legge or arme below the knee or elbow, you ſhall haue occaſion to uſe the incifion knife to cut a ſunder betwixt the bones or elſe where, whatſoever the Catling or diſmembriſg knife cannot come at by reaſon of their greatnes or uſitnes; and then proceed to the ſawe. To conclude, one of each kinde may ſerue for one Cheſt, ſo they bee sharpe and fitly grownd, and not too thinne edged. And they are both very needfull instruments to be at hand vpon all occaſions in the Surgions Cheſt.

Of the Razor.

THere needeth little to be spoken of the use of this instrument, for that all men know well the use thereof, which is chiefly to shave away haire where neede requireth: onely let me put the Surgions Mate in minde, that if he forget to take in his Chest a good hoane, as also a good whetstone, he may easily lacke the necessary use of a good Razor, when he hath most need of it at sea; yea though he carry 10 Razors with him. In Germanie it is a principall proove-peece of mastership in Surgery, for a young man to take a base and ordinary knife, and to fit it to shave a beard; and also to make a Launcet himselfe which will enter smoothly: and it is very great commendations in a young Artift to have sharpe and cleane instruments of all sorts, and to keepethem so, and cheifely Razors and Launcets; and it is a great grace to a young Artift to have good Razors and Launcets, and the contrary may doe great hurt. Wherefore I advise each young Artift to be practising often with the worst of his kniues and Launcets, till he be able to make them serviceable.

*The use of a Razor.**A Hoane and whetstone is very necessary.**Germane Surgions praise worthy for Razors and Launcets.**Instruments kept cleane is commendable withall.**Negligence blame worthy.*

But I finde that pride and slothfulnes hath taken such hold of many young Artifts, that they disdain and neglect the meanest parts of their calling, as things of too base account for them, which indeed are as behouefull often-times as those which seeme of more consequent. I shall neuer for my part account him a fit Sea-Surgeon, which cannot or will not amend his Launcets and Razors, which I hold to be an especiall credit to him, and no lesse aduantage to his Patient. Thus much at this time of the use of the Razor.

Of the Trapan.

THe Trapan is an instrument of great consequent, where there is iust occasion of the use thereof: but it

The use.

is seldome well vsed, and it onely attendeth the fractures of *Cranium*, and yet scarce one in ten haue iust occasion of the vse thereof. For we see daily many greuous fractures healed without it, and many more would be if no such instrument were; since the perfect vse thereof is not euery mans worke, neither in euery fracture (as I haue said) needfull to be vsed, because of many dangers attending the vnskillfull or vntimely vse thereof. I aduise the younger Surgeons to consider well afore they set the Trapan, whether it may not be forborne: but if a fracture happen in *Cranium*, with contusion and depression of both the tables thereof, so that by other conjoynd and apparent accidents, as want of some of the Senses, great vomiting with contraction of sinewes, convulsions, or the like iust reasons appeare, thou being forced to vse the Trapan, proceed warily as followeth.

An aduertisement whether the Trapan be necessary to be vsed.

If it be requisite obserue first the instrument it selfe.

First be sure the instrument of it selfe be good, and of the best making, and that it be cleane from rust, and perfect without faults; for those Trapans which are brought from Germany are not to be vsed, nor yet to be tolerated.

2. The place where it is to be applied. Great care required in the vse of the instrument.

Further of the place where it is to be vsed or placed vpo, it is not alwaies directly where the blow lighted, but sometimes a fracture is found a great distance of: wherefore this worke causeth no small discretion in the attempting thereof. Your direction therefore, the skin being not broken, must be according to the apparent indication of the part, the due consideration of the complaint of the Patient, together with your owne feeling with your fingers well respected. The place therefore found where the fracture is, it then followeth that the haire must be first shaued away, or at least (which is not so good) cut close

3. The haire must be shaued of.

4. Haue all medicines in a readinesse.

for a good distance about the greese 4 fingers broad or more, which done haue ready your medicines to binde vp the wound againe, as namely your sponge, your ligature with hot water, and each other thing necessary for a dressing fit, which in an other place I intend to set downe;

5. Obserue the Auxe.

And

And if so be that the fluxe hinder not, wine and hony to foment the greued part after the incision be made: It will doe well if it be in the ship to make also a restrictiue ready, namely of Bole with water and vineger, if an egge be not to be had; but an egge in the restrictiue will make it the better. And further if that the fluxe will not be stayed by an ordinary kinde of restrictiue, then take the stronger restrictiue powder which in due place is to be mentioned. And for present applications into the wound you haue good choice of two sorts, namely *Oyle of Roses*, and *Mel Rosarum* mixed warme, or the *Linamentum Arcei*, which in speaking of wounds of the head, I will touch (God willing) more largely.

All things therefore in readinesse, and the Patient placed close and warme from the ayre, and hauing two appointed to stay his head, your incision is either to be made directly crosse, or in the forme of this Romane T: and when the *cutis* is diuided, together with *membrana carnosa*, or fleshy membran, the *Pericranium* or *Panicle* couering the scull is also to be takē away, that the fractured part be bare, then set the *Trapan* thereon, namely the pin thereof is alwaies to be set on the whole part of the *Cranium*, wherby the most part of the *Trapan* by consequent standeth on the whole bone, but so that almost halfe may stand on the fractured part of the bone. This being thus warily set, begin easily to turne about the instrument till all the teeth haue taken good hold round, then take vp your *Trapan* againe, and take out the pin in the midst, and set on the other part againe as before, boring and turning still till you haue bored through both Tables, which is easily to be felt by the borer: then gently take out the peece, which commonly commeth away in the midst of the instrument, not regarding that all the fractured part be bored out or be coming away: neither shall it alwaies be needfull that the depressed part be presently eleuated, except it may very safely and easily be done; for nature will admirably bring to passe the eleuating & scaling of the rest of the fractured

6. Care of the Patient in dressing needfull.

7. Incision must be.

8. The *Pericranium* remove.

The setting of the *Trapan*.

The boring with the *Trapan*.

Nature much helpeth in this worke.

or depressed bone in due time, if thou follow onely a good method of applying comforting and conuenient medicines to the wound, with apt Ligature. Neither striue in setting the *Trapan*, without good reason, to vse the greatest head of the *Trapan*, which hath commonly 3 or 4 heads: for if nature onely haue a breathing it will wonderfully helpe it selfe by purging the contused blood through the orifice, by way of matter or excrement. Many worthy Artists there are at this day liuing, which haue performed great cures in fractures of *Cranium*, and yet neuer knew the vse of this worthy instrument. I haue my selfe with a short caruing knife wise made as good shift as if I had had a *Trapan* ready, and thereby cured two dangerous fractures, by cutting as much of the *Cranium* away, as that the contused blood had only vent. The Germane Surgeons vse no *Trapan* that euer I could see in my eight yeares liuing amongst them, though they both speake and write of it. But forasmuch as it is apparent, the worke of a *Trapan* is very good, I therefore would aduise a young Artist to make some experience first vpon a Calues head, or a sheepes head till he can well & easily take out a peece of the bone; so shall he the more safely doe it to a man without error when occasion is.

A caution in setting the Trapan.

A History.

Speciall skill required in the operation.

Note.

Note also that where a fracture is accompanied with a wound, it shall not be needfull to enlarge further then will serue to set the *Trapan*; for as too little breathing is dangerous, so too great wounds, making the Artist to be esteemed Butcher-like and hatefull, and is often also very dangerous and deadly.

Note wherein curacion of fractures consists.

Further note, the good successe of the curing of fractures in *Cranium*, as also in all other fractures standeth very much in good ligature and easie medicines, which I wish each young learner with diligence to practise. Thus much of the *Trapan*.

Of the Levatorie.

THe *Levatorie* is a necessary instrument to eleuate the depressed *Cranium*, in which worke, as I haue written in the former Chapter of the vse of the *Trapan*, I advise no young Artist to be too curious or hasty to force the depressed bone too much, where there is no euill *symptoms*; for a depressed bone will often-times helpe it selfe, by rising and scaling admirably; and yet it is many times of very necessary vse, and a fit instrument in the Surgeons chest.

The vse.

Cautions to be obseru'd.

It is very necessary.

Of the Head-sawe.

THe *Head sawe* is an instrument with which a vent may be giuen sometimes through the *Cranium*, and thereby the vse of the *Trapan* may be happily forborne: & for that reason this instrument may haue a place in the Surgeons Chest; sometimes also a small ragged peece of the *Cranium* may so hang, that this instrument may be vsed to sawe it away. But I wish young Artists not to be ouer-busie in sawing, plucking away, or raising the fractured *Cranium*, as is said, more then of meere necessitie they are vrged vnto, lest fearefull and suddaine accidents follow not to be auoyded nor stayed: If ought be meere ly loose, and in sight, take that away; if not, forbear to plucke much or force, for nature is exceeding beneficiall in eiecting vnnaturall things in that part, and very froward if thou vse force whilest shee is weake her selfe.

The vse.

Good keed required in Sawing.

Of the dismembriug Sawe.

THis great and terrible instrument onely ordeined for amputation or dismembriug, is fitting to be alwaies ready and cleane kept in the Surgeons Chest, with two blades therevnto, though one good blade well vsed will serue an Artist for his whole life: but forasmuch as it is

Instruments must be ready at hand, and kept cleane.

only

only appointed, as is said, for the worke of dismembri-
 I referre the Reader to a subsequent Chapter of dismem-
 bering, where I haue at large recited the vse thereof, and
 hauing small leisure I will now haste to the next.

*Of the dismembri-
 Nippers, and of the Mallet
 and Chizell for dismembri-
 ng.*

The vse. **T**Hese instruments hauing coherence with the prece-
 dent, namely the *Sawe*, are meere-ly invented, as the
 former, for amputation chiefly, and are appointed to the
 fingers and toes, as thother is to the leggs and Armes. I
 neede say no more of them in this place, but that they are
 good necessaries vpon occasions in the Surgeons Chest
 being kept well. Neuerthelesse in want of such at sea, the
 ship-Carpenter for a neede can alwaies furnish the Sur-
 geon in a short warning, and therefore they may as well be
 forborne as any other I know in the Chest, if allowance
 grow scant.

*No great neede
 of them.*

Of the Speculum oris plaine.

The vse. **T**HIS *Speculum oris* is that which taketh hold on the
 tongue and vnder the chin at once, and is very neces-
 sary to hold open the mouth for the better applying me-
 dicines to the throat: and this instrument is of no other
 vse at all in the Surgeons Chest; yet because the worke is
 frequent at sea, there is much neede of such an instrument
 in the Surgeons Chest.

*This is very ne-
 cessary.*

Of the Speculum oris with a screw.

THIS *Speculum* serueth to screw open the mouth, which
 is often very needfull at Sea, as well in the cure of
Lythargy and *Scuruy*, as in many other dangerous cases,
 and namely sometimes for the conveying nourishment
 into the mouth of the Patient: sometime also for the
 bringing

*Frequent in vse
 and very profi-
 table.*

bringing in medicines of severall kindestoo long to write of, wherefore it may not well be missing in the Surgeons chest.

Of the speculum lingua.

THis *speculum lingua* is a small instrument which may be carried in a plaster box : It is formed like a splatter or spatula at one end, onely it is hollow and cut through, and the other being formed for scraping the tongue : and is very fitting in feuers, and furring of the tongue, the broad is used to hold downe the tongue at such times as you desire, either to inject any liquor into the throate, or to apply any other medicine to the mouth or throate, though some use in place thereof a splatter, yet this instrument is farre steddier, better, and cleaner ; and being through hollow, as is said, the tongue is not apt to slip or slide from vnder it any way.

The forme of speculū lingua.

The use thereof.

The commendation of it.

Of the speculum Ani.

THe *speculum Ani* declareth his use by his name, belonging only to *ano* or the fundament, to open the same as occasion shall be offered, vpon euery grieffe or disease happening thereunto, and cannot well be forborne in the Surgeons chest. For if there happen into the orrifice of the fundament any excoriation or exulceration, then can nothing better be brought to the greiued place, then by this *speculum* : neither can the greife be seene without it: the manner of the opening of the fundament therewith needes not to be described. For I hold none so witlesse which cannot make use thereof, when they once see but the instrument ; and yet let not the young Artill be too busie in vsing of this instrument without good reason. For if by injection, without it he can cure the Patient it is much better so to do, and much easier to the Patient then to use the instrument. One principall reason is, the Patient hath not alwaies power to helpe himselfe by giuing way to the

The Use.

Reasons for the necessity of it.

1

2

An advertisement for the right use of the instrument.

Note 1.

2

3

4

safe vse of this instrument, for the Sphingures or gathering muscles of the fundament will not of themselves without resistance be opened, but often will against the Patient his owne will make such vnexpected resistance that if the Artift which delateth giue not backe he may bruse the said muscles, and thereby make new worke: for it ought well to be had in mind how dangerous it is to the life or health of the Patient to vse needlesse force in that part.

Of the cauterizing Irons.

THE auncient Chirurgeons of former ages vsed these instruments farre more then these in our times; but the necessarie vse of them in many cures is now forborne by reason the terror thereof to the Patient is great, yet the vse of them is very needfull, as namely, to cauterize any veine or Arterie in strong fluxes of blood which cannot otherwise be staid. And in the Epilepsie or falling sicknesse they are often vsed with good successe: also they are good to make a funtanel or Issue in the hinder part of the head, or in the necke; or else where in the cure of the Lethargie or Apoplexie, if vpon learned & good aduice there be held iust cause so to do. But they haue been vsed commonly of the ancient Surgeons of former ages for the opening of Apostumes. And surely they are far better in my iudgement for the good of the Patient in many Apostumes then the Launcet: and yet I confesse I make no vse of them my selfe in that kinde, because of the feare they put the Patient vnto, and for speech of people, who are ready to scandalize an Artift vpon each light occasion. These instruments haue likewise bin cōmonly vsed by the ancients in dismembriug, namely to cauterize sometimes the whole end of the stumpe, and sometimes onely veines and arteries, and doubtlesse with good warrant they may yet be so vsed; but in that case they are wholly now forborne, for reasons aforesaid, and for that a more pleasant course is knowne both for the Patient and the Artift; yet I conclude

The Vse.

*When & where
the vse is requi-
red.*

*The benefit of
the instrument
feare and scan-
dall bindereth.*

conclude it is very fit the Surgeons chest be furnished with diuers sorts of them, if the allowance of the Surgeon will admit it.

*Of Storckes bills, Rauens bills, Croes bills,
Goose bills, and the Terebellum.*

THese last recited instruments haue their seuerall vses, to draw out bullets, arrow heades, broken bones, or whatsoeuer else of vnnaturall things are gotten into any part of man body. In the vse of each of them great care and respect is to be had, not to vse extreame violence on the suddaine to draw out the offending thing, for it is not alwaies necessary to drawe it foorth by the way of the first wound, but perhaps it may with farre lesse danger bee thrust quite through the member, and taken out on the other side. Sometime also the offending thing as a bullet may be so fixed in a bone or otherwise betwixt bones, that it is farre better not to mooue it then to offend the part where it is fixed or seated: sometimes also Nature will better cast it out then thou canst by arte deuise to do it, and ouer forwardnesse doth often as much hurt as good. It happeneth also sometimes that the orifice of the wound is to be dilated, or enlarged to draw out a loose bone, or other things. In such a case if it be meerey loose, it is best to take it out the first dressing; but if it bee loose at one end only and fast at the other, except thou without flux of blood or danger of the member canst remoue it, forbear and giue nature leaue to do her office, and haue patience. For otherwise young Artills which are forward to teare, cut, and search too boldly, doe often that harme which is vnrecoverable. To conclude, since experience and reason maketh an Arte, if thou haue reason be carefull to aske counsell both of God and man, that thou maist answer thy deedes both here and in the world to come, for the subiect of thy Arte is the most precious of Gods creatures. Thus much for the vse of the aforesaid instruments at this time.

The Vse.

Care in their vse is to be had for diuers reasons.

1

2

3

4

5

6

The drawing out of a loose bone.

God and man are to be sought vnto for knowledge.

Of incision sheires.

*Incision sheires
are rather for
fume then
necessary use.*

*The seldome use
of the Instru-
ments.*

*An Incision
knife will excuse
the want of the
sheires.*

T Here is in euery Arte or Science a due respect to obserue the hauing of some things for forme and order sake, and if any instruments in the Surgeons chest may be teamed for forme sake to be placed there, the Incision sheires are of that kinde, for they are generally desired, but scarce once in a mans life worth the vsage; for admit there were an occasion to delate or enlarge a wound, it is farre better done with the incision knife, which iustly will obey the Artift his will without more or lesse doing then neede requireth: and this instrument is no way so iustly to be limited, wherefore though I haue here nominated it I forbear any perswasive words to vrge the use of it, but leaue the Artift to his will therein.

Of the use of Probes of severall sizes.

*Probes very
needfull.*

*The diuers ma-
ner of their use.*

1

2

*The ends of
their use.*

1

2

*Great danger
in the ill use of
the Probe.*

*The use of a
long Probe.*

T He vse of a Probe can no way be forborne in the Surgeons chest, for no chirurgicall worke is well and artificially effected without some occasion of the vse thereof more or lesse, as namely, oftentimes it is to be armed with dry soft lint to cleanse a wound: sometimes againe, as is aforesaid, armed with drie lint and dipped into some lotion, oyle or liquor, therewith to mundifie corrode or heale the greife according to the due occasion thereof, and will of the Artift: sometimes to inquire the depth of a wound, vlcser, or fistula, in which worke many times great wrong is done by vnconscionable or ignorant Surgeons, to their Patients by forcing to farre the Probe, thereby to make the greife appeare deeper, which I aduise young Surgeons to make a conscience of, for by such abusi the Patient is many times greatly indangered of his life. Further some vse the longer sort of Probes with eies like needles in wounds that penetrate through a member, yea some are so hardy they will put them through the Truncke of the
body

body, the Patient being wounded through the body, all which I hold to be very idle; for certainly it must be both very painfull, fearefull to the Patient, and dangerous; and the custome of such Artists is to drawe lawne or linnen cloth being put into the eye of the Probe or stamule as some tearme it, and dipped in some artificiall balme, they draw it so through the member, yea and some are so wise in their owne conceits that they leaue the said laune or linnen cloth in the wound from one dressing to another, which for my part I vtterly mislike; for I know in all wounds nature striueth to make vniton of the parts diuided, and who so keepeth a sunder the parts by such courses it shall repent him, except hee be gracelesse. My selfe haue had reasonable experience in piercing wounds both through the trunke of the body, and through the outward members, and haue euer contented my selfe, in putting into each orifice a short and easie tent, which I commonly make of *emplastrum stipticum Paracelsi*, or some other good plaster spread on a cloute and rouled gently tentwise and so applied dipped in Balme, the tent being but of halfe an inch or an inch long at the most: of which I neuer yet repented mee, except a broken bone be to come out, then I alter my intention according as the occasion inforceth, with other answering and methodicall courses due in healing, also obserued: which in their places as time will permit shall be touched God willing. No more at this time of the vse of Probes.

To draw the Probe through the body wounded is evil.

Historie.

Of spatulaes great and small.

Spatulaes or splatters as they commonly tearmethem are most needfull instruments to spread vnguent, and emplasters withall, and also to stirre about, and the better to compound any medicine on the fire: and to this latter worke the Artist may make wooden splatters which will be farre fitter and cleaner then those of Iron, and the Surgeons chest cannot well be without both sorts, and variety

Their vse.

Splatters of wood as well as of iron necessarye.

will doe well, wherefore they cannot be forborne in the chest.

Spathula mundani.

A new instrument.

The Use.

Costiueneſſe dangerous.

Great care to be had in the cure of the diſeaſe.

THis instrument is newly deuised by my selfe, to serue vpon any occasion of extreame costiueneſſe, which often happeneth to sea men, so that no purging medicine neither vpward nor downward administred or taken will worke, which my selfe haue more then once seen, in which case the fundament, with the *speculum ani* aforesaid, if occasion vrge, is to be opened, and the spoone end of this instrument put in and the hard excrements therewith drawne out, which in some bodies are so drie that they may be poudered. This disease killeth many, and may by the diligent Artist be easily cured as aforesaid. This recited instrument may bee easily forced into the fundament without the *speculum ani* to conduct it, being annointed or greased, and first warmed a little; this greife commeth now and then to men which haue the scuruie, and it often so inflameth, and excoriateth, yea and sometime putrifieth the Arſe-gut or *Longanum*, that the partie either dieth thereof, or the sharpe humidity proceeding by reason of the inflammation and excoriation thence mentioned maketh passage for the aforesaid hard excrement after which followeth a most extreame and painefull flux of blood, which for the most part killeth them, and yet is it often seene, that the party being in time diligently attended (by God his mercy) may haue comfort and remedy for once. These hard excrements taken away, the body returneth to the naturall former habit againe. &c.

Pacis, Pullicans, Punches or forcers, Croes bills, stems, Grauers and files for teeth.

The Use.

All these recited instruments, and each of them are needfull in the Surgeons chest, and cannot bee well forborne for the drawing of teeth, as also the clesning of the

the teeth and gummies, and the letting of the gums bloud are often no small things for keeping men in health at sea, and sometimes doe saue the liues of men both at sea and land: For we see that from an Apostume begunne vnder a rotten or hollow tooth for want of drawing of the same, sometimes proceedeth great swellings in the face, or in the Amigdalls, and throate, and the party is suffocated and dieth: Likewise by vndiscreet drawing of a tooth either the iaw is broken, or some other bad accident is prouoked. Wherefore I hold none worthy to go for a Surgeons Mate to sea, who is ignorant of tooth drawing; and I esteeme him an vnworthy Surgeon how high soeuer hee beares his head, that can draw a tooth well, and will vpon neede at sea scorne or deny to do it.

Skull in drawing of teeth required.

For drawing of teeth the true manner is, first well to diuide the Gumme from the tooth, in which worke if you be wary you neede not launch or cut the gumme at all, but onely with the round sharpe pointed end of the phleme to compasse the tooth close, pearcing by little and little still somewhat deeper, but euer keeping round and close to the tooth till you feele your phleme be as low as the iaw bone, in which time you may be; then consider well what kinde of instrument you will take to draw it, and if it bee the furthest tooth of the iaw either aboue or below, or that it be a stumpe, except it bee of the foremost teeth, the *pullicans* are the fittest instruments to draw with; if it bee any other of the great grinders, and that there bee reasonable hold on the inner side, be it on the vpper or lower iaw it is best done with the *pacis*; but you must be wary you draw not a large tooth with a narrow *pacis*, for so you hazard the breaking thereof; wherefore two sorts of *pacis* at least are needfull in a chest, and the like of *pullicans* and *punches* or *forcers*, for you must fit a large tooth with a large instrument. Concerning the foremost teeth and the eye teeth they are safest done with the *forcers*, or *punch*, prouided that they be vpon the vpper iaw, and them of the lower iaw being strong, with narrow *pacis*. Note further that as well

The manner how to draw a tooth aright.

The use of a Phleme.

The use of the Pullican.

The use of the Pacis.

The use of the Forcers and Punches.

Respect in placing the Instrument to be had.

How to place this instrument.

- 1
- 2
- 3
- 4

Gods mercy in working that which arte cannot.

The metall of the Instruments ought to be respected.

A reason drawne from experience. What fit to be done after the seeth be drawne

well the eye teeth as also the foreteeth are very apt to breake in drawing, for that they allway are deepe, wherefore there is great care to be had in the placing your instrument of what sort soeuer it be, and you must in raising the tooth be very carefull for feare of breaking the same, or of offending the iaw. Wherefore for one generall rule ere you draw a tooth, forget not to thrust downe your instrument as low as you can possiblie towards the roote of the tooth, and that you gripe it steady and fast, that as you seeme somewhat to wrench your hand, that you may more intend to plucke the tooth vpward according to the situation of the tooth, for sauing the iaw. Also when your instrument hath hold on the one side of the iaw, you must with your other hand take hold and stay the iaw. Beware also you be not too suddaine or rash in raising or drawing the tooth, but that you feele as it were the forme of the situation thereof in your plucking out of the same; for some great teeth, being farre wider in the lower end then else where, if you be too rash in raising them from their place, you are sure either to breake them or to damne the iaw bone. And in trueth, in that I haue often wondered at the goodnes of God when I haue viewed a tooth with three large stradling rootes or fangs, forced out at a round narrow hole, which fanges are no way flexible, so that it must follow of necessitie the iaw bone hath opened it selfe (though by force) to let them out, and yet without harme to the Patient, or helpe of Arte, closed againe, and in three daies perfectly whole. Concerning the metall your instrument ought to be made of, the forcers or punches are best to be made of the hardest Steele; the pacis and pullicans of Steele softened that they may not pinch too sharpe. My selfe haue to my paine proued experience in my owne head twice, namely the harme of steeled bard pacis: which pinched off the heads of two of my owne teeth, and left the rootes behinde, which maketh me the more to comiserate others in that behalfe. After the drawing of teeth some put vineger, and some put other liquors

into

into the mouth, but vineger I vtterly mislike: I neuer vse other thing but salt betwixt my fingers thrust into the place where the tooth stood, and then with my fingers close againe the gumme casily together. For in my opinion vineger is hurtfull in such a case; but if sometimes the party be not in ease presently, then I vse to heat a little of my ordinary lotion and giue it the party to keepe hote in his or her mouth, holding it on that side where the grieffe is, which for the most part bringeth present ease.

Concerning the *Crowes bills*, they are only vsed to take The vse of the Crowes bills. hold of any snag of a tooth or bone loose in the iawe, or else where in the body where occasion may vrge.

Phlemes haue not only their uses in teeth drawing, but also to launch & cut the Gummes to let them bloud, or to cut oftentimes the superfluous flesh of the gummes away, it being too ranke, as in cases of the scuruy, the cure whereof (God willing) shall in another place be spoken of. Another vse of Phlemes.

And for *Grauers* they are vsed to take scales of, a hard substance which vse to fix themselues to the teeth, causing them to become loose and stinke, or be blacke in the mouth, or to help to scrape or clesse a bone in any other part of the body, as iust occasion is offered. The vse of Grauers.

The small *Files* are vsed either to file a small snag of a tooth, which offendeth the tongue or lipps, or to abate any end of a bone else-where in the body which is fractured. The vse of Files.

One Bundle of small Instruments vsually brought from Germanie conteyning diners kindes, as Mulletts, Forceps, Hawules or Hookes, Eare-pickers, Sikes, Small spatulas, &c.

FOrasmuch as the vnexpected casualties that happneth to a man are innumerable, I see not hew the Surgeon can by his wit deuise instruments or remedies for all,

Wherefore for that a heare or a mote in the eye, a stone The vse of the Germane instruments. in the eare or nostrils, a pin or a bone in the throat, a spill
in

in the finger, and diuers like casualties vnfortunately happen on the sodaine, it is very necessary for the Surgeon to be furnished with such like needfull instruments, as are commonly conteyned in the Bundle mentioned: for this Bundle conteyneth at the least 20 small instruments of strange formes, at first deuised no-doubt by learned and diligent Artists, and doe well garnish and set out the Surgeons Chest, and are many waies very needfull for any the occasions mentioned.

Of the large Siringe conteyning one wine pinte, commonly called the Glister Siringe.

The necessitie of this Siringe.

THIS worthy and well deuised instrument so needfull in the Surgeons Chest, I wish each Surgeons Mate were perfect in the vse thereof: for it is so necessary and so comfortable an instrument to him that hath neede thereof, and so ready, neat, and easie for the workeman, as surely no instrument in the Surgeons Chest in my opinion is like to it: for there are two principall and capitall euills which chiefly hasten the ends of many of our louing Countrey-men-at Sea; not onely in the East Indies, but also in all hote Countries: the first and principall is extreame loosenesse and weaknesse of the stomach, and interalls causing a flux of the belly; the other is extreame costiuenesse, in both which this instrument is most necessary: provide therefore that you bee sure to haue one at hand, and that it be alwaies ready: also that you haue seuerall pipes thereto; that you arme it well with good towe; that when you haue vsed it you wipe it cleane, and hange it vp in your Cabin in two parts being drawne out, namely the staffe and the barrell ech by it selfe, for if it bee kept close it will be mustie and the towe rotten. There is also to be had in readinesse a crooked necke much like an elbow, belonging to the same instrument, that how crooked soeuer the Patient lye, the medicine may be administered to him: & therewith also any man may gieve himself

The vse thereof.

The manner of keeping the Siringe.

More pipes then one with a crooked necke needfull.

a Glister very easily without the helpe of another.

The principall things to be obserued in fitting the instrument is that the tow, within the staffe mentioned, be euen and full and close put on, that no drop of liquor can come out behinde at the staffe end, which is as ealie to do as in a small Siring. And you must also haue a glyster pot of pewter, but one of braise were better for feare of melting. Your glyster pot should be made with a snout or lipp, and containing one pinte and a halfe, the better to deliuer in the liquor at the narrow hole of the siring without a funnell. When you would put in your medicine, you must draw downe your staffe as low as you can, that there may be the whole roome to containe the substance which you haue ready, namely your Glyster, which put in, haue ready a cork to stop the hole you put it in by: then may you lay downe your instrument till you be ready to vse it. There is no other thing in the deliuering it into the body to be obserued, saue that you put on the pipe: annoint the end of it with some fat thing; or dip it into the oyle swimming in the siring. And when you are ready, hauing some tow about the head of the said pipe, wringing it hard in, and thrust it to the head, laying the siring in an euen position if it may be, and then put it from you till all be in the gut: then let the party turne himselfe on his backe, forcing himselfe by all possible meanes to reteine the medicine giuen him for one howre if he can. Sometimes also it falleth out that by meanes of the hardnesse of the excrement in the gutt, the holes of the siring pipe is like to be choaked and hindered from the deliuering of the medicine; in such a case the said excrement being onely clammie and not fully hardned, put vpon the end of your siring pipe that first entreteth the gutt ouer the holes of the saue — a thin oily clout that may cover all the holes, & so put it in clout & all, thrusting the same vp to the head or thicke part of the pipe; then a very little as it were draw backe your hand, & deliuer your glyster with some reasonable good force, thrusting the pipe in the

Necessary rules.
First of the tow
in the siringe.

*2. Of the glyster
pot.*

*3. Of putting
in the glyster
into the siringe.*

*4. Of stopping
the siringe
with
a cork.*

*5. Put on the
Pipe.*

*6. Anoint it
with oyle or
Axungia.*

*7. Put tow
about the pipe.*

*8. Concerning
the deliury of
the glyster into
the body.*

*Excrement
sometimes stop-
peth the passage.*

Note.

deliery close vp to the body that nothing come backe, the firing being drawne out let it be washed, wiped, and drawne out of the barrell, as I haue said, and so in two parts hung vp to be ready for the next occasion. But if you finde such resistance in the gutt that your medicine by the foresaid meanes will not enter, then with the afore mentioned *Spatulum mundani* draw out part of the hard excrements which hinder, and then proceed as before said to giue a Glyster. Moreouer many are so weake and vnfit to hold in their bodies any such medicine, except you with sometowe, clout, or the like, will hold it in they can take no benefit by a Glyster: wherefore in such a case you must be full of humanitie and christian commiseration, not to be fine fingered, squeamish, or disdainfull, but consider your brother by your selfe. Concerning the substance of a Glyster, the quantitie to be giuen, and other necessary obseruations of that kinde in the Chapters of the cure of the *Flixie* and *Scurvie* I haue written, to which place I referre the well disposed Surgeons Mate: and looke what for breuities sake I haue omitted, the young practitioner must as I haue done before him, either by reading, inquiring, or practising, and sometimes euen by erring finde it out: and if he know more then my selfe, thanke God for it, and let him impart some to others, and not scorne this; for to such I write it not, but to the young and willing learner. Some may maruaile I multiply so many words concerning the *Glyster siring*, and forget to mention the *Glyster bagg and pipe*, so good and auncient a worke, and so long in vse before the other. To which I answer; this worke is cleaner for the Surgeon, easier for the Patient, and may bee deliuered with greater or lesser force, as the Artist please; and this instrument will last, when the other will stinke and putrifie: and yet I deny not the other to be good, but not to be trusted to at Sea.

Thus much of the *Glyster Siring*.

The vse of *Spatulum Munda* required if the glyster cannot haue passage. What to be done if the body through weaknes cannot keepe the glyster.

This *Siringe* is preferred before the glyster bagg and pipe.

Of the small Siringe.

IT might seeme a thing vaine to mention instructions herein: for what Barbers boy is not practised in the vse of the *small Siringe*? Truly few, and yet many Masters to my knowledge erre grossely in the true vses thereof diuers waies, all which were friuolous in these brieue notes to touch. First therefore obserue that when you vse a *siringe*, let it be cleane; that it be smooth at the end for gauling; that it be euen armed with tow; that it go not by iumps nor too stiffe; and that you carry a steedy, & euen hand in deliuering it, & force it not ouer strongly, except vpon great reaso. And if the grieue be in the passage of the yard, as in case of *Gonoree* often times there is *excoriations*, then in the putting in the *siringe* it is needfull to rest thy armes in the deliuey thereof on the Patients his thighes, bee sitting somewhat high, or standing bowing forwards, and strue not to fill the *siringe* too full at once, for then thou canst not easily and speedily reach it to deliuer it: and the first time thou presentest it thou maiest if thou please make short worke, and deliuer it betwixt *glans* and *preputium*, that is twixt the skin and the head of the yard, holding the forepart of the *preputium* close together, if it may be held together, which serueth only to wash without the passage. The second time deliuer into the passage so farre as well thou canst reach, namely to the end of the pipe, if without great paine thou canst effect it, resting thy armes, as is said, and holding with the one hand the yard as it were in the middest thereof, or behinde the former part of the pipe of the *siringe*, namely, not meerely to the head of the yard, not straying nor pressing that hand too hard onely that the water iniected may be kept in, for by that holding of the left hand close, the water being artificially put in will come to the necke of the bladder; which done, keepe it so in till thy *siringe* being drawne out, can be filled once againe, and deliuer it as the other was, without removing the hand that holdeth, and that second time the wa-

Instructions for
the vse of the
small Siringe.

1

2

3

4

5

6

How to vse this
Siringe in the
yard.

1

2

3

How to deliuer
an Iniection.

4

5

Errors in iniection manifest.

1.

2.

3.

4.

Mercuriall iniections to be reserued.

The euills the cause.

Iniections not proper onely to the yard.
The necessitie of the sringe.

ter will come into the bladder; and obseruing duely this forme of iniection, thou shalt cast in as much water as thou please into the bladder without paine, with onely an ordinary *sringe*: whereas casting it in and holding the *preputium* close as is vsuall, assure thy selfe the water will neuer come at the necke of the bladder, nor further then the pipe is put in; whereas often the defect is in the necke of the bladder, and thy medicine commeth not there. Also let not thy medicine be too hott which thou iniecest, for that is dangerous, and cold is also bad, so hot as pitse is the true temper, or a little warmer. Beware also of *Mercuriall lotions*, I meane any which haue *Mercurie Sublimatè Precipitat* or otherwise prepared in them, for though they haue good qualities, yet they are vpon my knowledge and experience dangerous, vsed by way of iniection into the yard, for they will vtterly alter and ouerthrow the naturall faculty of the yard, and will offend the erection of *Virga*, and so calcineth the same that it shall become impotent to his naturall worke; I know it, and yet they may be with good successe vsed in curing *malignant vlcers* twixt *Glans & preputium*, or else-where vpon the yard, as the daily vse of them declareth. Concerning *Lotions* or *Iniections* they shall in another place be mentioned, God willing. Also concerning the generall vses of the *sringe*, they are not alone limited to *Virga* or the yard, nor to *veneriall causes* onely, but they are also of especiall good vse in *wounds, vlcers, & fistulaes*; as also for greefes in the mouth and throat, and may not therefore be omitted in the *Surgions Chest*: wherefore I aduise at the least two if not three, with ech three pipes, to be ready in the Chest vpon any occasion.

Of the Catheter, with also the waxe lights to search the conduit of the bladder.

THE *Catheter* may well bee numbered one amongst the needfull instruments in the *Surgeons Chest*; for
if

The use.

if obstructions happen, either in the passage of the vrine or necke of the bladder through slime, grauell, the stone, or like accident which by the artificiall vse of a siring cannot be remoued, then is this needfull instrument to be vsed, as also to make search for the stone in the bladder.

If therefore there be occasion to vse it put it in gently as followeth, namely, with the crooked or dependent part thereof downeward so farre as it will be put in, being first annointed with a little oyle of *almonds* or some fresh greafe or oyle for want of the first rehearsed, and being put in as farre as you can without much force, then feele by the roote of the yard neere the fundament with thy fore finger annointed with butter or oyle, or the middle finger of thy other hand where the end of the *Cathetor* resteth or beareth out, then put in the *Cathetor* yet further towards the fundament pressing or bearing downe, as it were, a little the lower part of the said instrument with thy vpper hand which staieth the *cathetor*, then together with the help of the lower finger of the other hand turne the *cathetor* vpwards, putting it also withall forward a little and it will slip into the blader, then draw out the inner wier and the vrinewill come forth, keeping the instrument gently and carefully within the blader till all be runne out that gently will come out without force. Moreouer you may by putting in the first or longest finger into *ano* or the fundament, the *cathetor* being in the blader, and the water drawne out, feele easily if any stone bee in the blader, the party grieued standing and bending his body likewise forward.

How to vse it
first instruction.

2

3

4

5

6

7

Of the searching candle.

THe searching candle is chiefly to be vsed when there is a carunkell or vlceration in the necke of the blader or passage of the vrine, and then it is vsed both to find out the place where the said grieue is, and also to bring apt medicines to the place agrieued; but that worke requireth good deli-

The Use.

The right end
of the candle is
to finde out the
griued place,
and right pas-
sage thereunto.

The time when
the medicine is
to be applied.

The right man-
ner of applying
medicines.

deliberation well to effect it : for a good workeman may easily erre herein except he take good regard Wherefore when by the candle you haue found the place certaine of the grieffe with, is commonly found by the stoppes or staies which the said candle findeth in the passage, which found, obserue the iust length to the further end of the said stop or place agriued, and there if you marke your candle well, you shall by the same perceiue the full length and breath of the disease, then vpon the said light or candle fasten your medicine which you intend to heale the grieffe, with; as namely if the disease be a kinde of spungie flesh as often it is, a little burnt *aluminis vsti*, or *vitriolum vsti* will be fitting medicines, or what else you know best for such occasions, and print it according to the depressed part of the waxe into the waxe candle, and conueigh it warily to the place, and let the waxe light remaine for a short time in the yard, then hauing a care you keepe it not till the waxe melt too much draw it out, and doe so againe, and alter your medicine vpon the searching candle as you see cause, and forget not to vse good iniections also, which helpe much. Thus much for this time concerning the *catheter* and searching candles.

These former recited instruments may be placed on the chest lid except the glister pot, their necessarie vses being briefly touched, it rests now to speake next of certaine other chirurgicall Instruments and necessities pertaining to chirurgery.

The Saluatorie and the necessarie appurtenances.

See diuers In-
guents at the
least in a salu-
very requisite.

THE *Saluatorie* if it containe vj. seuerall vnguents it is sufficient for any present vse, so that they be such as are sound and good, and most in common vse: such are

Vnguentum

Basilicon.
Apostolorum.
Liniment of Arcens.
Auguentum Aureum.
Diapompholigos.
Dialthea.

But if the *Saluatorie* haue eight roomes, then two more as necessarie as the former may be added, as namely *unguentum Populeon*, and *unguentum Album*; concerning the seuerall vses of these vnguents in their places somewhat shall be spoken of, God willing.

Eight roomes in a Saluatorie not amiss.

Of the Plaster Box and what belongeth thereto and first of the Emplasters.

THe Plaster boxe ought to containe at the least three kindes of seuerall Emplasters as namely,

Emplast. { *Stipticum Paracelsi*
Diachalcithea.
De lapide calaminari.

What Emplasters the Plaster box will haue at all times ready.

for want of *Diachalcithea Emplast.* *De minio* may serue.

The vses of the Instruments due to the Plaster box follow next and are these.

- Sizers.
- Forceps.
- Spatulæ.
- Probes.
- Stitching needles and quill.
- Lancet.
- Burraspice.
- Leuatory.
- Vuula spoone.

There belongeth to the Surgeons Mate a carefull and especiall respect to be had concerning Sizers, namely, that hee haue at the least two paire of good sizers for to cut haire, that they be well ground, and kept cleane, as also in his Plaster box one paire, and that they be at all times kept

Surgeons ignorant of the true use and keeping Sizers and Plaster box unworshy name and place.

well. The manner of vsing them were lost labour to be taught any Surgeons Mate, for if he be therein vnskillfull he is vnworthy of his place. Wherefore I onely recite them for remembrance sake, and likewise for order, hauing spoken somewhat of the seuerall vses of each one of the former recited instruments.

Of the Forceps.

The Use.

THe Forceps are onely to be vsed to take off medicines from diseases, or sometimes to take out a spill, a haire, or a loose bone, or else ought which is offensiuē, from a wound, or to draw out ought that may by chance come into the eare, nostrills, the mouth, or throte, to the danger of the Patient. Wherefore it is an instrument of continuall vse, and hath many offices in Chirurgie.

Spatulaes.

THe vse or abuse of the *spatula*, as it hath his office to take out an vnguent & spread it on lint, can do no offence to the Patient greatly. Wherefore I will pretermitt to loose time in declaring ought thereof.

Of the Probe.

The Use.

THe *Probe* hath already bene mentioned in an other place; but the small *Probe* being a necessarie, meerely belonging to the plaster box, serueth not onely for the aforesaid vses, but also to cleanse wounds, vlcers, fistulaes &c. and is a very necessary instrument which cannot well bee misfed: but there is much abuse of this instrument often, by making probation (as the phrase is) for some to shewe a wound deepe, hauing gotten once within the *cutis*, will by thrusting it, sometimes twist the coates of the muskels, sometimes otherwise deceitfully will either indanger the party thereby, occasioning euill accidents to follow, or

The abuse of this instrument.

Note

some-

sometimes breake the coate of a vaine or artery, to the overthrow of the Patient, or his great hazard.

Of the stitching quill, and stitching needles.

THe stitching quill, & stitching needles haue their due place in the plaster box; wherefore, that they may be the more ready on the suddaine as occasion is offered, forget not to haue at the least three ready needles well armed and pointed of severall sizes, I mean threaded with strong coulored silke well waxed, and when you stitch beware you draw not the orifice awry, oblique or deformed, but that you haue great respect to the true beauty and former comeliness of the wounded part, neither let your stitches be too neere one an other, neither tie your silke too close, which will occasion the stitches to breake before their time, for Nature will not be forced. Also when you would stitch a wound let the hole of your stitching quill not bee forgotten to be set to the one side of the lippes or sides of the wound which you intend to pierce, so that it may giue a stay to the part when it is to be pierced through with the needle, and it must be iust so placed that the needle piercing through the wound, may also come within the said hole, which drawne through, take away your quill, and set it so to the other side. Sometimes also it happeneth in stitching the lippes, or the sides of the wound lie so neere each to the other that both sides may at one time be taken vp without drawing out the needle at all, in such a case the stitching quill mentioned is not to be remoued from the first place. A double colored silke is the best to stitch with, being waxed, next that thrid will serue. It is also convenient to waxe the thrid or silke, or to vse some emplaster to rubbe it with in place of waxe. Note also that rowling needles be put into the said stitching quill to be ready: also thred to sow rowled together for making the readier and conuenienter ligature in wounds, and vlcers as occasion is. There is also a forme of drie stitching of new woundes

How many needles needfull.

Of what sizes.

Instructions for stitching.

1

2

3

4

5

6

which at this time I omit for breuities sake. Thus much of the stitching quill and stitching needles.

Of the Lancer.

Althoough at the first it might bee imagined that little were to be spoken to the Surgeons Mate concerning the Lancer, for without question each Surgeons Mate knoweth a Lancer as well as my selfe, yet when I consider the weakenesse of young men concerning the true vse, and the abuses of the same, and that I call to minde how many good men daily hazard, if not loose their liues by the vndiscreet vse thereof; I am at a pause with my selfe to consider in these few lines I haue to writte, what I might say for to furnish the Surgeons Mate with best and needfullest admonitions in fewest words. First therefore mee thinkes it is not amisse to aduise him, that he cary with him at the least sixe of the best sort, besides sixe more common ones, for an East Indie voyage: that he oyle them, or annoint them with *Axungie*, and so wrappe them in oyle cloutes, that they rust not. And that hee onely bring foorth into the aire one at once. Also that hee haue ready conuenient bands to tie the arme, a band made of worsted gartering is the best, or of a strong fine list; for all bands made of silke or linnen will slide backe. Let him remember also that he tie not two knots vpon the band for that requireth too much trouble in giuing the vaine vent; if hee vse a wollen band one sliding boe-knot will serue, which is easie to bee loosned, or fastned where you would cause it to bleede better or lesse. Note also that the band bee turned twice about the arme ere you tie it: also that this knot lie a lott on the toppe of the arme and on the outside of the elbow, and not too neere the ioynt or the place where the vaine is to be opened. That he neuer open a vaine but first hee haue ready a band and boulder to make it vp againe. That his Lancets be not too spere pointed, I meane small pointed, for the broadest pointed Lancets make the best work.

Likewise

Instruētions
concerning the
Lancer.

1

2

3

Concerning
bloud letting
necessary admo-
nitions, first

2

3

4

5

Of the Lancer
points.

Likewise that the orifice be large not deepe, yet not ouerlarge, for it is ouerlarge when the blood tumbleth out without a streame, for that spendeth too much the spirits, and it is also too narrow when the streame is small, and that the vaine is puffed vp with winde. Note also that if your Patient incline to faintnesse, or sounding, you cause him betimes to thrust his longest finger of the other hand into his throte, and a little prouoke himselfe to casting, it helpeth presently, and let him reiterate the same worke if occasion be. But if hee chance on the suddaine, as oft it happeneth, to bee gone in a sound, beware you lay him not on his backe with his head too low, being in a sound as some do, for so you may chance to loose him. I haue seen the like once done by an ignorant blood-letter. Wherefore remember it, but rather bend him with one arme forwards, and with your other hand stoppe very close his mouth and nostrills, and in very short time you shall perceiue winde to come, and it will gather to his mouth, and he will striue for breath, then let go your hand, and all is well; and as often as he fainteth doe so, this is a safe course which with good successe I haue vsed from my youth to this day.

Of the vaine opened.

Of faintnesse in blood-letting with a remedy.

Of sounding in blood-letting the remedie approved.

Further note that at sea, especially where fresh food of good nourishment is not at hand, it is good to be sparing in the quantitie of blood to be taken away, and rather often take blood away, then too much at once, except blood abound too much which is not easily iudged by euery young Artift. For sometime the party is idle headed by distemper of the blood, which by cooling broths and iulips ought rather to be tempered, prouiding also, that he haue the benefit of Nature, I meane a loose body, or be prouoked thereto by Arte, and by this meanes rather seeke to cure, then by rash *Phlebotomy*, for you must consider that in the blood consisteth the life of man, wherefore bee not rash in that worke, and as is said, hold euer this rule, that if the Patient neither on the day thou wouldest open a vaine, nor on the day before haue had a stoole, that thou

The quantitie of blood to be taken away at sea.

Remedies for idleness in the head through distemperature of blood.

Phlebotomie not alwaies to be vsed.

Obserue well.

Of the veines to
be opened.

Attempt not to let him blood before first hee haue had one stoole procured him at the least if not more, which is soonest and safest done by a suppository, the next safest & better way is by a glister. The vaines commonly opened are sixe in number, namely, one in the forehead, one vnder the tongue, 3 in the arme, and one in the foote: The three in the arme are most in vse, whose names are *Cephalica* the vppermost, or head vaine, so called of the Greeke word *cephalus* which signifieth a head, and is commonly opened in all griefes of the head where it can be taken, in want whereof it is almost as good to take the middle vaine.

The next is the *median* or the middle vaine, it is the second principall vaine which is generally taken as indifferent for the whole body.

A speciall ob-
seruation con-
cerning the
liuer vaine.

The third is the *Basillica* or the liuer vaine, being the lowest in the arme, and more respecteth the liuer then the two former. But hold this generall rule, that if thou intend the opening a vaine to helpe the liuer, and that the liuer vaine will not bee well taken, then take the *median* vaine, for thou must know that all vaines haue their originall in the liuer, for some armes haue but one faire vaine appearing, then it followeth of necessitie thou must take that, for many learned Phisitions are of opinion that the fullest vaine in the arme is best and fittest to be taken generally, except some speciall cause alter their minds: for their words are often *que manus turget manus erget*, which may be englished, the vaine which sheweth most, is most faulty.

Causes of blond-
letting in the
forehead.

The vaine in the forehead is also often taken for paines in the head, as rumes, distillations of humors, and the like.

Vnder the
tongue.

The vaines vnder the tongue in the *squinancie* or *angine*, inflamations and swellings of the Amigdalls of the throte, or of the roote of the tongue, the liuer vaine called *saphane* chiefly is taken for womens sickneses, not seene at Sea, though some necessarie occasions chance of the taking thereof in men at sea, for diuerting and sometimes for curing

In the *Saphane*
vaine.

ring of some especiall diseases, which for breuity having spent my limited time I omit.

Incision Knife.

THis instrument is mentioned in the beginning of the uses of instruments vnder the title *Incision Knife*.

The Burras Pipe.

THis Instrument thus named doubleesse was by a Surgeon borrowed at the first from some Gold or Siluer-smith, and neuer paid him againe; for the Goldsmiths vse it daily, and cannot performe their workes without a *Burras pipe*, but the Surgeons make other vse thereof, namely for the most part to reteyne coroding powders in, as *Vitrioll*, *burnt Alom precipitate*, and such other causticke medicines, which well vsed performe very much in healing; so also their abuse bringeth shame to the Artift, and often vnrecoverable damage to the Patient. For it is common with many Artifts in the healing of new wounds to mixe *precipitate* either with a *digestiue Vnguent*, or with *Basillicon*, and laid on tents, *Dorsell*, or *plegents* according to the forme of the wound, and to put it in, as they say, either to enlarge the wound, or to help digestion, to take away proud flesh, to mundifie, and the like; and if not *precipitate*, then must they be busie with *Vitrioll* or *Alom* burned, or with some causticke medicine in that kinde. But I would aduise the Surgions Mate not to vse any coroding medicine at all in new or flesh wounds, but let the flesh grow as proud as it will, the ground being cleare from whence it groweth, namely if it bee from a wound wherein is no putrified bones; and if so bee that the wound be full of flesh, and then will not sicatrize, a little burned *Alom* or *Vitrioll* will do well, and then to your former dressing againe, remembering that ech third or fourth dressing be meere dry liate, you shall finde good therein,

From whence it had his originall.

The vse of the Burras pipe.

The danger of the abuse of it.

An error in healing a new wound obserued.

Directiue for the cure of a new wound.

therein, and if you only take linte and wet it in a *Coperas* water and let it dry againe, and lay that linte onely on the proud flesh sometimes for a dressing or two, and then againe to your former method. Againe it will without paine very well sicatrize any new wound; I speake this for that by the vnskilfulnesse, yea and sometimes by the wilfulnes of some euill minded Surgeons, I haue seene men lamed by the needlesse vse of causticke medicines euen in slight wounds, to which if an old wife had onely applied her one salue for all sores, no such thing had happened: Yet I am not so simple to deny the iust vse of so noble medicines in wounds, vlcers, and fistulaes, or otherwise where neede is, but I only here aduise the young Artift, that he may not be too rash in the vse of them, and likewise to aduise him that hauing vsed them once he first pause againe at the least 8 daies, namely till the first *Esker* be fallen, and certaine daies after ere he vse any causticke powder againe; for with the vse of coroding medicines one immediatly after an other, many Vlcers are made more painefull and rebellious then they were, and the bones sometime made foule which were otherwise cleane, which fault is too frequent now a daies, and amongst many grosse faults daily committed by vnexpert Surgeons, this one is to be lamented, namely the vse of keeping open penetrating wounds too forcibly and too long by the vse of hard tents armed with causticke powders, where by nature can make no true vnition, but is forced into much disorder; which I wish young men to make a conscience of, and to be carefull not to erre in that kinde.

Surgeons wilfulnes as well as vnskilfulnesse blame-worthy.

Note.

Two euils to be auoyded.

1.

2.

The Levatory.

This Instrument is set downe else-where.

Of the Uvula spoone.

THis instrument is made to put pepper and salt in, or fine bole, pepper, or salt in, or some other the like medicine,

dicine, and to hold the same right vnder the *Uvula*, which is for to blow vp into the concavity behinde the same and no other great or especiall vse I know it hath in Surgery, except it may be vsed to warme a medicine in.

[Thus much of those necessaries which properly deserue the names of instruments in the Surgeons Chest. And now a word or two of such other Appendixes which in their kinades are as necessary as the former.

The Cupping Glasses or Ventoses.

THERE is many necessary workes in Surgery performed by *Cupping glasses*, namely, sometimes they are vsed to set vpon a *Bubo* or botch to bring it forward, and therein they are very good. Sometimes also to set in the nodell, and on the vpper part of the shoulder blades to draw back humours which oppresse the head, the eyes, or teeth. Or against *Lethargy*; or on the thighes against aches or paines there; or for the cure of the *Sciatica* they are very good; or sometimes to draw blood and spirits to a member withering or benumbed: in all these and diuers more griefes the *Cupping glasses* are very needfull. Sometimes also they are set without scarifying only to attract humours to the place. An other time it may be in other cases they are vsed with scarifying to take away blood and choler which offendeth the part. Some set them on with tow; some with a small wax light set vnder them; some onely with the flame of a great candle, which my selfe vse, and is not offensiu nor painefull at all. Whereas the other waies the flame excoriateth often the part, and maketh new worke vnseemely: for the better doing whereof I vse to place my candle close to the place where the *Cups* should bee set, the place being first wet and rubbed well with hot water and a sponge, and the *Cupping glasses* also wet: hold your *Cupping glasses* ouer the flame a little, and

The vse is diuers. First

2

3.

4.

5

6

The end why they are set without scarifying. Why with scarifying. The diuers setting of them.

The best manner of setting them.

thence clap it quickly on the place whilest yet the steeme of the light is in it, and it will be fast and draw hard, but you must haue your *Cups* fit and not too wide for the place you would set them on, or else they will not take any hold. Further when you perceiue they haue drawne well, which by the blacknes and rising-of the skin you may easily see; then if you hold it fitting you may lightly and quickly scarifie it with a fine *Lancet*, which truly is the best and profitablest instrument for the vse, then wetting your *Cupping glasses* againe, and with the flame onely of the candle set them on where they stood before, setting as many *cupps* and drawing as much blood as you see good, and when no more blood will come, and that you thinke it time to take them away, which is knowne by a yellow water which commeth at the last, then I say it is time to wash the places with faire water where the *cupps* stood, and dry them with a sponge or cloth; and onely anoint them with *Ung: Album* once, and they will bee whole. The ouer deepe scarifying it, is not only dangerous, but also painefull, and not Art-like: for if you note well the *cutis* it hath many capillar veines in it, yea and some great veines, and is *Porous*, so that the Artiste may by force draw humiditie sufficient from farre, if so occasion be to vse their vtmost force. Large and wide *Cupps* are fittest on the thighes, lesser on the armes, and the least for the hands or feete.

Note.

Scarification
must be light,
& sodaine, &
with a Lancet

When to take
the Cupping
glasses away.
What to bee
done after they
be taken away.
Deepe scarify-
ing euill.

Of the Brasse Bason.

Friend learne
good by ill.

I Haue nothing to write concerning it, but that at the least the Surgeons Mate haue one if not two, and if he finde no vse for it let him sell it for good liquor at *Ban-*
tham, as a Surgeons Mate lately did one of mine.

Of the Blood Porringers.

The quantitie
of blood negle-
cted, care and
cure is banished

Blood porringers are necessary at Sea, to be the more certaine of the quantity of blood which is taken, since the
the

the blood of man is so pretious a thing, as it is to bee well weighed what quantitie is taken.

Although the German Surgeons doe euer let blood into a Balon, which I hold not good for the Surgeons Mate to imitate at first, except he be of good iudgement indeed to iudge of the quantity: the blood porringers which are made for that purpose being full, hold iust three ounces, and somewhat more: for my owne practise I hold this course; if one chance to come to me of himselfe, or by aduise of a Phisition to be let blood, though he be a strong body I neuer take from him more then two porringers and one halfe at the most, but often lesse, if the party be not strong, except it be in case of *Plurisie*, or some like vrgent cause, I take lesse; for in that worke except my reason giue me good satisfaction to doe the contrary, I will rather offend in too little, then in too much taking of blood away, for I haue seene much hurt to haue ensued by great quantity of blood taken away at one time: for 7 or 8 ounces I hold a strong body may beare to loose, hauing good nourishment to recouer it againe, and that without harme; but if you grow to ten ounces, you may many waies doe harme in the body, except your warrant be good. I speake not this to discourage young Surgeons from a worke so behouuefull, but admonish them to warinesse in a point so dangerous.

Exitation without discretion is ille.

Blood porringers necessary.

The constitutio of the body is to be regarded in Phlebotomy.

Too little rather then too much blood is to be taken away.

Of the Dyet Pot.

THE Dyet Pot is not alone to be vsed in cases of dyet drinke seething for the pox, and not otherwise; for as a learned Doctor vpon occasion lately reasoned, there is difference betwixt *the Dyet*, and *a Dyet*, though in both kindes there is euen. *Quot homines tot sententie*, so many men so many mindes. Wherefore concerning descriptions of seuerall dyet drinks for the pox, I will referre the Surgions Mate to other Authors: for in truth I must deferre that point till fitter opportunity, I meane till I write

The vse.

touching the cure of that disease. And yet me thinkes somewhat to speake of a drinke in the case of the *Calenture*, or an vnnaturall hot feuer to be made at Sea to qualifie the heat of the bloud, were not amisse, which may be done as followeth.

*A decoction
for the Calen-
ture.*

℞ french barley ℥ iiiij.
fresh water 2 gallons.
Licorice ℥ j.
Cloues n^o: 12.

In want of Licorice take iuice of Licorice halfe an ounce. In want of french barley take other barley, or for a neede wheat flower, boyle this gently to 4 or 5 quarts, then cleare it, and if it may be, keepe it not in the brasse pott, but in some earthen or glasse vessell, and if the party his heat be great, and haue paine in his head, adde thereto so many drops of oyle or spirit of Vitrioll, as will a little change the taste sowerish, but not too tarte in any wise; and if into all this drinke you put of Rose water, of wine vineger or Rose vineger and Cinamon water, of ech only one spoonefull, it will doe well to mend the taste, if you haue it, if not the matter is not great, let the Patient drinke often hereof. Further you may if you thinke good adde sirupe or iuice of Lemons ℥ 4. If it be for one which is loose in his belly you may infuse of your *succus Acatia* herein some 2 or 3 ℥, and being cleared let him drinke of the drinke plentifully as he hath thirst; but you must cut your *Acatia* first, and dissolue it in a little of the drinke warmed, and so put it into the rest. Also in want of *Acatia* if you put therein *Galls* in powder a litle, it will do well.

How to keepe it.

*The composition
of the drinke if
the heat be ouer
great and cau-
seth head-ach.
The colour and
taste of the
drinke is to be
observed.*

*The drinke com-
posed for a
Lesse.*

Of other necessaries.

The next instruments in order to be remembred are these following, viz.

Skillet.

| | |
|-----------------------------------------|----------------------------|
| Skillet. | Spunges. |
| Chasing dish. | Clouts. |
| Glisten pot. | Rowlers. |
| Funnell. | Gray pepper. |
| Cups to giue potions in. | White pepper. |
| One Bord & knife to spread plasters. | Empty potts & Glasses. |
| Morter & Pestell. | Thrid & Needles. |
| Weights & scales. | Wax Candles. |
| Sines. | Lanthorne. |
| Searces. | Tinder box furnished. |
| Strayners. | Inke & quills. |
| Splints. | One close stoole. |
| Iuncks. | One bed pan. |
| Tape. | One brasse payle. |
| Towe. | 20 well burned bricks. |
| | Pipkins. Empty baggs. |

I shall not need to spend much time to set downe the vses of all these necessarie implements, onely two or three of the most needfull to be noted I will remember, and then to the vses of the medicines within the Chest.

Of weights and scales.

WEights and Scales are necessary things, often times lightly regarded, and yet how many mens liues hangs in the ballance, it is plaine enough. For Sea-Surgeons familiarly giue *Stibium* by the graine, namely from 4. The use is diuers. to 8 graine, yea and to 12 graines by your leaue; when in truth few of them haue weights and scales which can weigh one graine. A great fault in weights and scales. It is a dangerous thing for a Surgeon at Sea to bee vnprouided of neat weights and scales which will turne at halfe one graine: for how can they giue either *Laudanum paracelsi*, *Stibium*, or other *Chimicall* medicines safely, or almost any medicine inward without small weights and scales? Wherefore two paire of weights and scales are very needfull for the Surgeons Chest, name-

A direction in weights.

ly one for ounces, and one for graine; for larger scales the ship is furnished. It is also to be understood here, for instruction of children in Art, that xvj. ounces makes a pound; ech ounce 8 dragmes, ech dragme 3 scruples, ech scruple 20 graine; for the graine a full barley corne will well serue, or a good wheat corne, though a large wheat corne be somewhat too bigg: an ordinary pepper corne will also serue for a graine.

*Of the Close-stoole, with the Paile of Brasse,
and the Bricks.*

*Many things
sometimes are
of great mo-
ment.*

*None worthy
to be reputed
Artists who dis-
daine the mea-
nest office of
their profession.
The use of the
Close-stoole.
The neede of it
is great.*

*Obserue this if
thou hast a con-
science.*

ALthough I know before hand that I am to vndergoe many witty and eloquent flouts from young gallants of my owne profession for mentioning so base a subiect to belong to the Surgeons charge, as is this last mentioned Close-stoole with his appurtenances, yet let them know that neither can my booke blush, neither my selfe I hope shall haue cause; for I nothing doubt to yeeld to ech honest young Artist a sufficient reason for to satisfie him herein: and in a word my reason of the appointing to ech ship bound to the East Indies at the least one of these, is by reason of the bloody or other fluxes, being so dangerous diseases, and so deadly amongst our men, as I hold it my duty to aduise euen the good of a close stoole: and I haue caused the stoole to haue one doore on the one side, that thereby either things to foment, fumigate, or otherwise to comfort the weake part, might be the better applied, the Patient sitting at his ease thereon.

Also one especiall reason why I haue appointed it is; that a pooreweake man in his extremities should not continually go to the shrouds or beake head to ease himselfe, nor be noysome to his fellowes, but might by the help of his Mate through this meane instrument finde comfort in his most pitfull distresse, whose miseries I hartily compassionate. Wherefore I admonish the Surgions Mate in general, in the feare of God not to be fine fingered, slothfull,

or scornfull to vse every kinde of good manuell and other helpe to saue mens blouds in this fearefull disease, for their omitting of their duties in helping men thus distressed bringeth the blouds of those men without doubt vpon their heads, and though peradventure they may cary it away for a while with men, yet the Almighty who seeth not as men see, will surely finde them out.

The paille of brasse vnder the stoole was chiefly appointed for neatnesse, cleanlinesse, strength, and other good vses it hath alwaies to belong thereto, and not to any other vse: It may also sometimes be whelmed downe, and on the topp thereof a hottie bricke be set, or the bricke if

The brasse-palle.

*The vse of
bricke.*

you finde it too neere may stand lower, or put into the paille, which hottie bricke with wine and vineger or any other like fitting medicine of experience may be sprinkled to comfort the part agreede withall, for it is found by experience that the steeme of wine vineger sprinkled on a hot bricke doth much auaille in the cure of the flux, and that simple remedy alone hath cured many; but when the

*The cure of the
flux.*

Patient riseth from the said fume, if then a cloth bee well heate ouer the said fume or ouer a fire, and put close to the part, it auailleth much, and if you then likewise lay the Patient to rest, giuing him three or foure graines of *Laudanum* you shall do the better, and by Gods helpe with other answerable good regiment of diet, make a quicke and perfect cure of his disease. But I am not ignorant that there is vse for twentie close stooles at once, in some one shippe, which worke the Cooper and Carpenter may take in charge.

Thus hauing briefly runne ouer the most necessarie vses of the particular Instruments, and other necessarie appendixes to the Surgeons chest; it followeth next to beginne with medicines Physicall and Chirurgicall as well simple as compound within the chest, namely, somewhat, though very briefly to touch their most common vses and vertues for the helpe of young Practitioners.

The conclusion.



AN ABRIDGMENT
of the vertues of certaine *Emplai-*
sters mentioned which are most vsuall in
the SURGEONS chest.

Emplastrum stipticum Paracelsi.



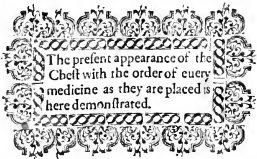
His composition deuised by the famous Philosopher *Philippus Theophrastus Paracelsus* excelleth in the cure of piercing wounds, and scabs; as also in the cure of all dangerous wounds whatsoever; it hath the precedence as well for contused as inlized wounds, for it asswageth paine, defendeth from accidents, discusseth, mollifieth, attracteth, digesteth, incarneth, and consolidateth: and is also good for an old ach proceeding of a cold cause. It is further especiall good to vicers on the legges or elsewhere in any part of the body: it is of temperament warme, and very comfortable.

For approbation whereof you may see *Paracelsus* his owne words, which I haue hereinserted.

Hoc Emplastrum est magis virtutis diuine quam humanae, Valet ad omnes plagas, nouas & antiquas. Abstergit, mundicat, carnem bonam generat, consolidat ex fundo plus una septimana, quam aliud quodcunque in mense, nec permittit fieri aliquam putrefactionem & corruptionem, nec malam carnem generat. Valet omnibus neruis incisis ut conquassatis & musculis: Valet omnibus inflaturis, abstrahit serum & lignum, & plum-
bura

| | | | | | | | |
|-------------------------------------|-----------------------------------|-------------------------|------------------------------|--------------------------------------|----------------------|-------------------------------|------------------------------------------------|
| Electuariū Diatrion piperion. | Pulvis re- stringens minus. | Vng: con- tra Ignem. | Vnguentū Martiatum. | Vng: dia- pomp- pho- ligos. | Diafor- dion. | Mel de- puratū. | Confilij liquid. |
| Theriaca Diaterfer: | Vnguentū Dialhex. | Axungia Cerui. | Vnguentū Ægyptia- cum. | Vng: Au- renum. | Confer: rosarum. | Rhabarb elect. | Lapis in- Lapis in- ferreus, formalis. |
| Theriaca Londinen: | Vnguentū Album. | Axungia Porcina. | Vnguentū Porabile. | Linam: Arcei. | Confer: barberis. | Confer: prunello- rum. | Fulvis or- Lapis in- ferreus, sbracteus. |
| Terebinth: Venetiz. | Vnguentū Populeon. | Vnguentū Arragon. | Vnguentū Pectorale. | Oleum lauri. | Confer: Etonio: | Pulpa ta- marinda- rum. | Lapis in- Pulveribus masticis, masticis. |

Note that the particulars within this place men-
tioned, are usually placed in the lowest part of
the CHEST.



| | | | | | | | |
|---------------------------------|----------------------|----------------------|----------------------|-----------------------|---------------------|------------------------|-------------------------|
| Aqua ca- lestis. | Luxiniū capitale. | Syrupus rosarum. | Balsamū arific: | Oximel. | Acetum Rosarum. | Aqua Ab- sintij. | Aqua Ro- sarum rub: |
| An: rosar: damaq: | Oleum lisorum. | Oleum limoniorū | Mel ro- sarum. | Oleū Cha- momili. | Oleū Ro- sarum. | Aqua An- gelicæ. | Aqua Plantagio: |
| Oli: amigd: dulcium, amarar: | Syrupus Cinam. | Oleum terebint: | Ol: lum- bricorū. | Oleū Sam- bucorum. | Oleū Ane- thi. | Aqua Li- moniorū. | Aqua Car- dui bened: |
| Oli: amigd: vitrabil. | Oleum corpionū | Syrupus absintij. | Diamo- ron. | Oleū Ab- sintij. | Aqua Ci- namomi. | Succus Li- moniorū. | Aqua Menthæ. |
| Oleum Spice. | Oleum Petreoli. | Oleum papaveris | Oleum livi. | | | | |

| | | | | | | | | | | | | | |
|-------------------------|---------------------------|----------------------|--------------------------|------------------------|-----------------------|------------------------|----------------------------|-------------------------|------------------------|-----------------------|-------------------------|----------------------|-------------------|
| Vnguentum Bazilicon. | Vnguentum Apollolorum. | Vnguentum Aureum. | Vnguentum Alb: Camph. | Vnguentum Nutritum. | Vnguentum Dialhex: | Vnguentum Populeon. | Vnguentum contra Ignem. | Vnguentum Pectorale. | Vnguentum Potabile. | Vnguentum Arragon. | Vnguentum Martiarum. | Linamentum Arcei. | Mel Sapo- nis. |
|-------------------------|---------------------------|----------------------|--------------------------|------------------------|-----------------------|------------------------|----------------------------|-------------------------|------------------------|-----------------------|-------------------------|----------------------|-------------------|

| | | | | | | | | | |
|--------------------------|-------------------------|-------------------------|-----------------|-------------------------|---------------------------|--------------------------|---------------------------|-------------------------|--------------------------|
| Vnguentum Ægyptiacum. | Syr: rosarū | Syrup: violæ rum. | Oxim: rosar: | Me- thrid: | Dia- cordū | Confer: hamel: | Cro- cus mart: | pilule coctæ | Pilula cam- borie. |
| Axungia cerui. | Syr: papa- veris. | Syrup: licor: | Mel rosar. | Theri: Vene- tie. | Theri: Lon- dini. | Dia- pheni- con. | Confer: alter- nis. | pilule agreg: | Pilule russi. |
| | Syr: lino- niorū. | Syr: prune: | Syr: diam: | Elect: de one. | Land: Opiat: Parac: | Dia- catbo- licon. | Elect: diatr: pape: | Pilule capbor by. | Pilule aures. |

Note that the particulars within this place men-
tioned are usually to be found in the upper part
of the CHEST.

The middle part, which cannot be here expre-
ssed, I leave to the *Surgions* experimental view.

| | | | | | | | | | |
|----------------|-----------------|------------------------|--------------------------|-----------------------------------|-----------------|-----------------------|---------------------------------|--------------------------|---------------------------------|
| Ru- barbe. | Agar- ricum. | Mū- mia. | Aloer. | Myr- rha. | Maf- tiche. | Cam- phora. | Tro- chisc: alban- dæ: | Pulvis licori- ce. | Vnguentū d i- apompholigor. |
| Cam- boria. | Sea- monū. | Sper- ma ce- ti. | Terra sigilla- ta. | Mer- curius Subli- matus | Preci- piat: | Eup- hor- bium. | Pulvis Bene- dictus. | Ar- gentū vivi. | |
| Sibi- um. | Opiū. | Cro- cus. | Dolm verus. | Cina- brū. | Micra Fijra | Sal mirer. | Sal Absin- thij. | Tinia pp. | Vnguentū con- tra icorbutum. |

| | | | | | | | | | | | | | |
|---------------------------------|---------------------------|--------------------------------|------------------------|-----------------------|----------------|----------------------------|--------------------------|--------------------------------|--------------------------|----------------------|-----------------|-------------|------------------------|
| Species Diatri- on piperion. | Species Dia- terferon. | Species Thera- cz Londinens | Conferua Ros- arum. | Conferua An- thos. | Conferua Barb. | Conferua Pru- nellorum. | Conferua Cto- niorum. | Pulvis restrin- gens maior. | Pulvis arthre- ticus. | Pulpa Tama- rind. | Succus Licorice | Methridate. | Theriaca Vene- tie. |
|---------------------------------|---------------------------|--------------------------------|------------------------|-----------------------|----------------|----------------------------|--------------------------|--------------------------------|--------------------------|----------------------|-----------------|-------------|------------------------|



bum de plaga, eidem suppositum; Valet contra omnes morsuras, cuiuscunque morsura bestie Venenosa, & puncturas Serpentis: maturat, sanat omne generatum cuiuscunque Apostematis, superpositum: Valet in membris generationis, sibi fuerit corruptio: Valet contra Cancrum, fistulas, contra ignem persicum, sedat dolores cuiuscunque plaga. Hec Theophrast, Bombast.

Diachilon Magnum cum gummiis.

THis Emplastrum dissolueth, maturateth, and mollieth hardneses, & is principally good in Apostumes, it is of temperament warme, and moist, it was first deuised by a certaine ancient Artist named *Serapis*, and *Auicenna* as some thinke inuented it; but others iudge that *Mesues* was the inuentor thereof.

Diachilon paruum.

THis Emplaster is very good to dissolue schirras, tumours of the liuer, spleene, raine, belly, or elsewhere, it is wholly composed of mollifying and discussing ingredients; it serueth generally for hotte or cold causes, but chiefly for hot: For I hold it to bee of temperament cold, the rather by reason of the much Litharge in it, which if a minereall may be called either hot or cold Litharge is cold Without question, it was deuised by *Mesues*.

Diacalsitheos.

THis Emplaster mittigateth paine, it is a good defensatiue against all venemous humours, and will very well induce a siccatrize in wounds and vlcers: also it hath an especiall good quallitie to asswage the paine in the small of the backe proceeding from distempered kidnies by hotte causes, aswell concerning the stone, the grauell, as also in *Gonorrhoea*, and dissolued or relented with oyle of roses, of elders, or of linseed; it is a very good medicine to heale

G

burnings,

burnings, and scaldings: it was deuised first by *Galenus*, of temperament it is cooling, and drying.

Empl. Oxicroceum.

THis is a very ancient composition, but ascribed chiefly to *Nicollus* an ancient Writer as Author thereof, it is of quality anodine, attracting, mollifying, and comforting: it alswageth paines in the goute proceeding of a cold cause, and is good in cold Aches, and by that attracting vertue it hath, it draweth out vapors (*per poros cutis*) or the sweate vents in the skin, whereby it often vnladeth the body of vicious and noysome humors which otherwise might indanger the Patient, of temperament it is hotte and moist, &c.

Empl. Melilotum per splene.

THis Emplaster mollifieth all hardnesses of the Liuer, splene, and ventricle; dissolueth windiness, ceaseth vehement paines prouoked by winde, as namely, in the disease called *flatus hipocondriacus*, which is a flatious or windie paine gathered neere vnto the Spleene: it is also generally good against the gathering together of any coïcaled cold substance in the stomach, or liuer: of temperament it is warme and comforting exceedingly: It was deuised by *Mesues* an ancient writer.

Empl. Melilotum simplex.

THis is good in greene wounds, for it draweth and healeth well: also it attracteth and bringeth forward a cold Aposteme, and is an especiall secret, and the best thing I euer knew in curing kibed heeles and chilblanes: it is of temperament hot and moist, and was deuised by *Mesues*.

Emplaf.

Emplastrum de lapide calaminari, or Gristum.

THis Emplaster (I may speake of my owne experience) is a good healer of vlcers which are hard to bee cicatrized, and hath an especial vertue in curing of *buboes*, as well veneriall as pestilentiall: It is also the best incarnatiue of all the Plasters that euer I vsed.

Emplastrum de minio.

THis Minium-plaster is a good discusser of hotte humors, a good swager of paines, mollifieth well, repelleth somewhat, and is very commodiously vsed vpon wounds and vlcers to further good healing: it induceth also a good cicatrizate. In the tumour of *scrotum*, or rather of the Testicles called *Hernia humoralis*, commonly following the suddaine stopping of *Genorrhoea*, it is a very conuenient anodine and discussing Plaster, but in another place I intend to set downe my best practise in the cure of that disease, as a thing in charitie behoofull for young Practitioners, to which I referre you, only note that this *Emplastrum de minio* is ment of the composition set down by that reuerent Master *Galle* in his dispensatorie, for I make mine after his description.

Emplastrum calidum.

This *Emplastrum stomachi* or *calidum* is a composition described by *Iohannes Iacobus Wekerus* vnder that name pag. 953. of his Dispensatorie: it is only vsed where a comforting Emplaster of a very warme temperament is required: it is a needfull Emplaster in the Surgeons chest, for it comforteth much the liuer or stomacke debilitated by cold humors, and helpeth wel digestion, in want thereof *Paracelsus* Plaster though not so fitly, may serue.



AN ABRIDGMENT

of the vertues of certaine vngents
most vsuall in the Surgeons chest.

Vnguentum Basillicum.



His Vnguent doth digest and incarne wounds and vlcers, and will also prepare and bring to superation an Aposteme either hot or cold, being somewhat thicke spread on towe, or leather and applied thereto: it also mitigateth the paine and pulsation thereof, and is likewise very fitly mixed either with precipitate or *Vnguentum Aegyptiacum*, or the like medicine, the more easier and better to mundifie and cleanse an vlcer: This vnguent is of temperament warme, and is ascribed to haue bene deuised by *Gallen*, it is also good for burnings, and scaldings.

Vnguentum Apostolorum.

This *vnguentum* serueth well to cleanse and scower vlcers, and fistulaes, and to make a good ground to healing: it is of temperament hot and drie: it was deuised by *Auiscene*, named *Apostolorum*, for that it consisteth of 12. simples, ioyned into one body.

Vnguentum Aureum.

This *Vng.* serueth well to incarne wounds and vlcers, being first well mundified: it is also to be vsed as a balme to them to heale them, and is a good healer of burnings

nings & scaldings, the fire first taken out : The composition which I doe make is of the practise of *Iosephus Quercitanus* whose good vse I haue made triall of, which I meane with the rest of the compositions to publish in print.

Vnguentum Egyptianum.

THis Vnguent serueth to scower ; it mundifieth all rotten foule v'cers , and is best to be put into the grieife scalding hot, and then the vsuall paine and corosion it procureth will be quickly past : in like manner it is to be vsed in any venemous wounds made either with poisoned shot, or bitten with madde dogs , or any other venemous or great contused wounds, wherin for preuenting them from feare of a Gangreene it excelleth. It serueth also well to be vsed alone or mixed with any lotion for v'cers of the mouth and throte , especially in the scuruie. This Vng. drieth vehemently , and is absterfiue : of temperament hot and drie, and was deuised by *Mesues*.

Vnguentum Album Camphoratum.

THis Vnguent is very good to coole , and heale any hot, moylt pustles: it cureth excoriations of the skinne in any place , but chiefly in the yard betwixt glans and preputium : it also healeth burnings and scaldings very well : and is good to be applied to any painefull v'cer, for it asswageth paine and healeth well. It was inuented by *Auicene*: of temperament it is cold, anodine, mollificatiue, and attractiue, and therefore of very good consequent in the Surgeons chest.

Vnguentum Diapompholigos.

THis vnguent is good to heale painefull v'cers in any part of the body , especially of the yard , or betwixt glans and preputium, as also any fretting or painefull v'cers

of the leggs, or else where. I haue found it before all other *Vnguents* in vlcers of the yard; against virulent, painfull, and corrosiue vicers scarce a better composition is knowne: in *Noli me tangere* in the face I haue had good experience of it: and in many other occasions I haue found it a very good *Vnguent*, of temperament it is cold and dry. *Nicolaus Alexandrinus* was the Author of it.

Vnguentum Pectorale.

IT swageth the paines and stiches of the breast and sides; easeth the cough, helpeth expectoration: it helpeth to digest grosse humours, and to attenuate them: and warmeth and comforteth a cold stomacke. This composition is set downe in the dispensatory of *Augusta*.

Vnguentum Rosatum.

THis is vsed against inflammations, and *Ignis sacer*, and all hot paines of the head: it alswageth the paines of the Liuer, kidneies, and belly proceeding of heate, and hath vertue to corroborate. It was invented by *Mesues*.

Vnguentum Tripharmacum, or Nutritum.

THis serueth well to cure an *Erysipilas*, excoriation, or bladderings of the skin: such also as are termed the *Shingles*: it is also good for to take the fire out of burnings and scaldings: and for any moist humour flowing to any vlcers in any part of the body being spread vpon cap paper thin, and laid ouer the whole distempered part: and against any sleight scabbines or itching humour whence soeuer it is: also an especiall good defensatiue against any scalding or vitious humour flowing to any vlcer; of temperament this *Vnguent* is cold and dry. It is subiect to diuide it selfe, namely the oyle *Litharge* & *vineger* asunder,

asunder, which if it be wrought together againe will be as good as at the first: and if it be ouer dry adde vineger and oyle thereto, and it will be as good as at first.

Unguentum Populeon.

THis serueth well to asswage the paines of the *Scurvy* by anointing the parts greued therewith. I may iustly say vpon the experience of diuers skilfull Surgions, and my owne also, that as well in hot as in cold Countries it hath been found exceeding comfortable and behouefull, that scarce any composition of an *Unguent* in the Surgions Chest may compare with it, which some may thinke is a very absurd affirmation in reason, but that experience will haue it so. It is good also to anoint the Temples, to prouoke rest in hot feuers: as also the palmes of the hands and soles of the feet. It is likewise good to be applied for swaging of paine in any part of the body, and being applied cold vpon a *Plegent* where you haue laid any corollie medicine; it easeth the dolour of the causticke medicine. Of temperament it is cold & moist, it was deuised by *Nicolaus*.

Mel Saponis.

M*el Saponis* is Hony and Sope mixed *partes aequales*, and is a medicine appointed to be first applied vpon a burning or scalding to take the fire out. It is a linament of ancient vse amongst our country Surgions, and good; but I finde it not mentioned in ancient Writers, in want whereof vse *Tripharmacum*, or an infusion of *Vineger*, and *Litharge*, namely *R Litharge* of gold in powder $\frac{3}{4}$. wine vineger lib. j. mixe them well, and boile them very gently a little on the fire, the Vineger will become sweete as sugar and very anodine: foment the greefe therewith, and you shall finde present ease to the party: Or take *Populeon* and *unguentum album* mixed, and apply it on soft
cap

cap paper, first being well rubbed with your hand to make it soft: or take *Diacalsithias* or *Minium* plaster, and mixe it with *Linseed* oyle, or oyle of *Elders*, till it be a gentle vnguent, and so apply it: or *Tripharmicon* alone will doe well: or *Hony* alone is a good medicine.

Unguentum contra ignem.

THis composition vsed to that purpose, you shall finde in *Iohannes Wikerus* his dispensatory, pag. 1174. I haue found it very good against burnings and scaldings; as also against burnings with gun-powder. Where I write the compositions of my medicines in generall, that also shall be expressed. In want of this composition the *Vng. album*, either alone or mixed with *Tripharmacon* will doe very well, which if it be too hard or dry, you may mixe oyle of *Roses* or *Linseed* with it: and for want of this you may take *Diacalsitheos* or *Minium* mixed or relented with any of the said oyles, or any other fitting oyle, as oyle *olue simple*: also *unguentum Basilicon* is very good in burnings and scaldings.

Unguentum contra scorbutum.

THe composition of this *Unguent* is recited in the cure of the *Scuruy*. I haue had the practise thereof and found it very good to attenuate grosse tumors of the *Scuruy*, to asswage the paines of them, and by the vse thereof to dissolue such tumors. I vse this *Unguent* in cold causes, in want whereof *ung. Martiatum*, or *Oleum Laurini* or *Dialthea*: but in hot griefes and very painefull I vse *Populeon*.

Unguentum Dialthea compositum.

THis *Unguent Nicolauus* an ancient writer seemeth to be the Author of. It is profitable against paines of the

the breast proceeding of a cold cause, and against the *Plurisie*: it warmeth, mollifieth, and comforteth all the parts of the body which are euill disposed through cold infirmities. It is also good against stiffness & paines of the ioynts in the *Scuruy*.

Dialthea simplex.

THis hath the properties of the former, but the former is better.

Vnguentum potabile.

THis *Vnguent* is a sure Balsame for wounds of any sort, or in any part of the body, either penetrating or not penetrating; in wounds penetrating either iniect it warme, or powre it into the wound. Also vpon any occasion it is to be drunke ζ j. or ζ ij. at once, or for a dose. It healeth wounds within the body. Also it healeth burnings and scaldings without any scarre. And further it cureth the winde chollicke drunke with sacke: the dose is to bee ζ j. without feare: but I giue vsually but one dramme or ζ ij.

Vnguentum de Mercurio.

IHaue else-where said, and it is too much apparant, that for healing and killing, *Mercurie* hath no fellow, and where I recite *Mercurie* in any of my instructions, you must vnderstand me *Quick-siluer*. for so it is truly stiled by the Learned, and not without good reason. This *Vnguent*, ioyne with it what other ingrediencies you please, yet if *Mercurie* be one it will shew his valour in despite of the rest, though it haue 20 for one odds against him; so puissant is that Volatile & excellent spirit of his, which I may boldly say could truly neuer be tamed: and yet many worthy medicines are made thereof, as in their se-

uerall places I meane to explaine as I shall haue time, God willing. You may make this *Vnguent* of *Dialthea, oleum Laurini. ana. lib. ss. Mercurius viuus. or quicke siluer ℥ij. oleum spice or Tereb. if you haue them ana. ℥ ss. & if you see cause in very cold bodies you may adde of Euphorbium in powder ℥-ij.* This *Vnguent* is good to prouoke a flux. You may make it of one of these *Vnguents* alone for neede. But I wish not the Surgeon to carry any of this *Vnguent* ready made to the East Indies: for the Quicksiluer, it is to be feared, will fall to the bottom; but if he will needes haue it ready made, let him adde to the composition, wax a sufficient quantitie, but it must be made, as followeth. Your wax and vnguent must bee melted together, which being yet warme R̄ *Terebinthine clare ℥ j.* being put into the bottom of the wodden bowle, or brasse bason, not a pewter bason; and stirring it so long till all the Quicksiluer be cleane lost and turned into a blew salue no more to bee seene; then by little and little mixe it with the former, and being almost coagulated, I meane almost cleane cold, neither liquid through heate, nor altogether cold, and worke the *Terbinthine* with the *Mercury* altogether strongly till it bee cold. You must vse it cold, and either let the Patient himselfe chaffe it in till it be warme, or which is better let the Patient stand afore the fire & chafe it in. But note, he which anointeth others therewith if he vse it too often, let him put a bladder on his hands, for the often vse thereof causeth many euills. This *Vnguent* hath as many vertues as vices, and as many vices as vertues, a whole weeke may be easily spent with good profit to the Reader in writing of *Mercurie*, I hartly wish some learned and worthy man would take it in hand truely to anatomize that subiect: I am perswaded, yea and know well, he might therby saue the liues of many an innocent soule, who with great infamie perish through the inordinate vse of this *Vnguent*, and yet the medicine is good: but I referre the Surgions Mate for the vse of this *Vnguent* to read M^r. *Clowes* his booke of Surgery.

But concerning the ordinary uses thereof, if you anoint the ioynts therewith it killeth the itch, but if you anoint too plentifully it prouoketh a flux, sometimes vpwward, sometimes downeward. If you anoint the seames of his shirt which is lowlie therewith, it driueth away all the lice: the same it doth to the lice of the eye browes and secret parts, wherewith many are troubled. Also for the Piles it is a very good medicine; I vse it in that case first to purge the Patient, and after to anoint him with *Vnguentum Album* wherein quick-siluer is mixed, namely of the *Vnguentum* ℥ j. of *Mercurie* ℥ j. *misce*, and anoint therewith daily three times and keepe the place very warme.

Linamentum Arcei.

I Cannot but reuerence the Authour of this pretious plaine *Linament*, whose desert to the Common-wealth was very great therein: for it is as sufficient a Balme for new wounds, especially in the head, as that a better can scarce be found out by Art. It doth all the intentions of healing a wound in the head meereley of it selfe, the flux being stayed. For it digesteth, mundifieth, incarneth, and siccatizeth; it defendeth from accidents, and is very anodine: it may also fitly bee applied to painefull vlcers and fistulaes vpon occasion. The Author or manifestor of this *Linament* was *Franciscus Arceus*, in a small Treatise of Surgery of his, translated by Mr. *Iohn Reade* a Surgion. It is of temperament hot and moist.

Vnguentum Aragon.

This *Vnguent* is numbred amongst the 4 hot *Vnguent*s. It profiteth generally against all cold effects of the outward parts of the body: it much warmeth and comforteth the sinewes: it is good against convulsions & cramps: it is good to anoint the Ridge bone of the backe, and the parts neere the kidneis against the paines thereof: and

also to anoint the stomacke & belly vpon any cold grieſe : it is good to annoint the body for them which haue the quartane feuer, the falling ſicknes, the paines of the ioynts: and alſo it is good to be vſed as a *Morbis oymment*, according to the common phraſe, adding the due quantitie of *Mercurie* thereto, which I account to be of *Quick-ſiluer* ʒij to the *Vnguent* lib. j. But I finde it will not retaine his vertues aboue one yeare, as witneſſeth *Iohannes Iacobus Wikerus*. Wherefore I forbear this composition in the *Surgions Cheſt*.

Vnguentum Martiatum.

THis *Vnguent*, as it is compoſed of many ingredien- ces, ſo it is ſaid to be effectually for many greefes: for ſaith the *Author*, it diſcuſſeth cold cauſes in the head ſinewes, and ioynts : it remoueth the paine from the breſt and ſtomacke proceeding from cold : it preuaileth againſt conuulſions : it helpeth the reſolution of the ſinewes, dead palfey, and them that are troubled with the *Sciatica*, or hip gout, the gout in the hands, feete, and in other the ioynts of the body. It mollifieth hard puſtles and tumors in the fleſh : it aſwagereth the hard ſwellings of the Liuer and ſplene : eaſeth the paine in the ſmall gutts : it cureth the ach in the reynes. It hath his name, as *Salaritanus* ſaith of *Martianus*; or as *Maulius* which is more probable ſaith of *Martiatum*, a moſt ſkilfull Phiſition ſuppoſed to be the inventor thereof, and it is deſcribed in the *Dispensatorie* by *Nicolaus Alexandrinus*, who alſo deſcribeth the vertues thereof in effect as is here ſet downe.

Axungia Porcina.

Called *Axungia* of annointing the Axel-tree to make the wheelles turne eaſier about, for which many vſe it to this day. It is liquid flowing like oyle with warmth :

it hath a lenifying and anodine qualitie, and therefore it is not vnprofitably vsed for mitigation of sharpe humors, asswaging of paine, healing of burnings with fire, and very fitly mixed with *Cataplasmes* appointed for those effects.

Arungia Cerui.

THis *Arungia* is of a hot nature, doth asswage aches, resolueth and mollifieth hard tumors in any part of the body, and by experience is found very good, administered in Glisters to heale the excoriations of the *Intestinum rectum*; for it is anodine and very sanatine. The manner to vse it is somewhat touched in some other my instructions elsewhere.

Mel simplex.

ENglish hony being yellow, the sapour and odour pleasant, being sharpe, pure, sincere, cleare, fast or stiffe, yeelding little spume in decocting, is good and very profitable for those that are costique, good for the stomacke if one drinke it with water: it helpeth the bladder & reynes: it is good for the eyes: it mundifieth, openeth, and healeth: and for burnings and scaldings it healeth them without scarr, and is very good to heale vlcers of the eares: and (saith *Dioscorides*) drunke with water is wholesome for the belly and stomacke: and also for such as are pained in the kidneis and bladder, it helpeth them. It is also good to be anointed in the eyes to cleare the dimnesse of light in them: it hath an abstergent or clensing force: it openeth the mouthes of veynes, whereby it also draweth out sordid matter or quittur from fetid vlcers. But the best hony of all other is that which is gathered in *Lycoania* a Prouince of *Polonia*, where the Bees breed only in high trees, and gather their hony from a certaine flower growing on trees called in Latin *Flores Tiliæ* or *Tili*, in the Germane tongue *linden holt*. This hony is white, hard, and very fragrant or odoriferous.



Of the vertues and vses of sundry *Cordiall Waters.*

FOrasmuch as compound Cordiall waters truely made of the Spirit of wine, with the addition of diuers especiall costly and medicinall spices, drugs, and other precious additaments now much in vse, haue beene found very auailable and comfortable by many experiences, not onely at sea, and that in the very remotest parts of the earth, either hot or colde, to our nation, and others in their trauels: but also heere at home, vpon many occasions, haue ministred great helpe and comfort, both in preserving the body in health from disease, and also in curing many great iufirmities, especially when they haue proceeded of colde causes: I thought it a thing not vnecessary briefely to set downe the vertues and vses of some of the principall of them, for the benefite of young Surgeons.

Aqua Cœlestis.

M*Atheolus* in his Commentaries vpon *Dioscorides*, setteth downe this excellent water, as a principall Antidote or preseruatue against all poysons, or poysoned or infectious aires whatsoeuer, so that either receiued into the body, or but onely smelled vnto, it helpeth very much against infections, and that it doth also very admirably restore againe one fallen either of the dead paulsie or falling sicknesse, and is also good either in the collicke or any gripings of the guts, as also in any the weaknesse of the stomacke, and against any colde fluxes of the guts or belly, mixed with some two spoonefuls in a glister, and
hath

hath many more especiall good vses and vertues there set downe, which for breuity I must passe ouer.

Dr. Steeuens Water.

THis Water needeth no man to describe his vertues, being a thing so common and ancient in vse, composed by that learned Phylician of worthy memory so named, for experience hath found it to be a notable cordiall water for comforting the head and heart, yea, and all the principall faculties of the body, both Animall, Vitall and Naturall, if it bee truely prepared, and of that there needeth no question if you will but beleue the feller thereof.

Rosa Solis.

THis *Rosa Solis*, or rather *Rossolis*, taketh his name of an hearbe so called, which hearbe is very medicinalle, as namely against consumptions, it hath beene often approoued and found a certaine remedy, but the *Rosa Solis* composition being without deceit made, is farre more precious, for it comforteth the stomacke and braine, helpeth digestion, strengthneth the appetite, openeth obstructions, is good against the paulsie and falling sicknes, and hath many other vertues.

Cynamon Water.

THis Water doth comfort & strengthen the stomacke, the liuor, the milt, the lungs, the heart, the braine and the sinewes, sharpneth the sight, is good against venoms, as also the stings and bitings of venemous beasts, helpeth a bad or euill fauouring breath, is good against lothing of the stomacke, and where you desire to warme, to open, to atenuate, digest or corroborate, in all such cases this precious liquour excelleth, witnesse *Iohannes Iacobus Wikerus* alledging *Mathiolus*, yea and diuers other famous writers, and Experience it selfe.

Limon Water.

THis is the tincture and chiefe essence drawne by spirit of wine from the rindes of Limons, which is a great Restorative to mans nature, and a precious Cordiall, which not onely aromatizeth the stomacke, but much strengthneth the feebled Spirits, and is as an healing balsam to all the inward parts of the body, and doth open obstructions and breake the winde in the stomacke exceedingly. Iuyce of Limons is touched else where in the cure of the Scuruy.

Rosemary Water.

THis is a great comforter of the braine, sharpneth the sight, helpeth the weaknesse of the stomacke, preserveth from vomiting, is very good against the disease *Dysentery* or the bloody fluxe, the cause proceeding of colde, either drunke, or three spoonfuls taken in a glister, when you are ready to administer the same: and hath very many other good properties too long here to recite.

Sassafras Water.

THe Spirit of this precious root is a great opener of all obstructions or stoppings in the body, namely of the liuer, the lungs, the kidnies, and of the splene, and thereby it is found by many experiences excellent against the Scuruy, the French disease, and in the yellow iaudise; it is an approued remedy also against colde fevors and the dropsie, or those which are enclining thereto, for it prouoketh vrine and sweat, in a very milde and naturall manner, and driueth out many diseases by the poores of the skinne, and hath infinite more vertues ascribed vnto it: the best of these rootes grow in *Virginia*: you may read *Monardus* of the vertues of this roote more at large in his Treatise of New Spaine.

Anis-seed

Anis-seedwater.

THis water as the former, and also those which follow, haue all their substances from the Spirit of wine, and must therefore being truly so made, retaine the manifold good vertues thereof: and besides hauing therein the whole vertues of the *Anis-seedes*, it is found very excellent against winde in the stomack or else-where in the body, and against *Asma*, the *Tisicke* and shortnesse of breath, it also breaketh flegme and warmeth the stomacke.

Worme-wood Water.

NO water whatsoeuer more gratefull to the stomacke, then is *Worme-wood Water* truly composed, for it is as balsam thereto. It consumeth and breaketh winde mightily, killeth the wormes, whereunto our nation are subiect in the *East Indies*, hindereth vomiting, prouoketh appetite, is very good against paines in the head proceeding of a colde cause, and is very cordiall.

Balme Water.

THis water hath a great respect to the heart, for of all other of the former, no hearbe is esteemed more cordiall then this, and is of a gratefull smell and taste, yet I holde it more proper to women then men, for it much respecteth the infirmities of the Mother, and is in the times of their paines very comfortable to take a little of it, for the safer and sooner prouoking of speedy deliury.

Angelica Water.

Angelica water may serue well in stead of *Triskell* or *Mitridate*, for a preseruatiue against the plague or any infectious aires, for there is no one thing more com-
I mended

mended by ancient and moderne writers, in that kinde, then *Angelica* is, nor of more experiences, and is also very stomachicall and cordiall, and being truely made will retaine his strength and vertues forty yeeres and more.

Mint Water.

A*qua Mentha* doth warme and strengthen the stomacke, liuer, spleene or milt, helpeth concoction, stayeth vomit, and is very cordiall.

Aqua Cardui Benedicti.

C*ardus Benedictus Water* doth ease the paine of the head, confirmeth the memory, cureth a Quartane, prouoketh sweat, and comforteth the vitall Spirits.

The Conclusions.

ALL these waters and spirits rehearsed, though in themselues they be good, yet if any of the best of them be abused and immoderately taken, they may as soone doe harme as profit: I aduise therefore no man to make a common vse of them, or any of them, which hath a young able body, and may haue a good diet at his pleasure: for they are cheefely to bee vsed at sea, where mens bodies by variety of the venemous vapours and euill dispositions of the aire, or vnkinde diet, are in hazard, or where there is a weake stomacke, euill digestion, with a lothing disposition to meat, euill appetite, too much loosenesse of the belly, also where by extreame heat and sweat the spirits of the body are exhausted and spent, or where through the extreame cold of the same, the body is much annoyed and endangered: In all these and in infinite more euils incident to mens bodies abroad and at home, these precious liquors minister present comfort: they also are very behouefull to aged people after there meats to helpe digestion,

digestiō; or them which haue weake stomacks, or that are of sad & melanchole dispositions, for it must not be denied that wine comforteth the heart of man, and these waters haue their originall and whole force by the spirit or life of the wine, and thereby do exhilarate mans heart, and giue him courage as well as cure his infirmities.

If therefore these waters be truely made, they ought also to be strong of the spirit of wine, otherwise they will not keep long good, neither are they profitable nor wholesom, and being good, one spoonefull at one time is sufficient, or two spoonfulls at the most, for the preseruing of health, they are best to be taken fasting, one hower or two after dinner, and last at night, either alone, or with beere or wine, some make a toste fasting, and drop the same full of cordiall water and so eat it, and that is very good.

In gripings of the guts, collicke or fluxes of the belly, proceeding of cold causes or much crudity, three spoonfulls or four may be vsed at once in a glister, but you must not boyle it therein, only when it is ready to bee administered; but if you put it in otherwise the spirits will euaporate and be of no force.

Aqua Rosarum Damascenarum.

DAmmaske Rose-water doth refrigerate and comfort the heart, is good against swoounding and causeth sleepe.

Aqua Rosarum Rubrarum.

Red Rose water doth refrigerate, binde and corroborate the vitall and animall faculties: benefitteth the head, easeth the pained eares and eyes, and doth good in Inflammations, and is profitable in medicines against *Dysentery*.

Aqua Odorifera.

Sweet water is very necessary and profitable to aromatize the body and refresh the senses, it sweetneth the garments, taking all offensive savours away, and doth much exhilarate the spirits, being well composed of true Aromaticke Ingredients.

Aqua Plantaginis.

Plantane water is astringent and sanative, good to them that are in a consumption of the lungs, in a dropsie, or that haue the bloody fluxe, against the quartane ague, and cureth the vlcers of the reines, bladder, and excoriations of the passage of the yarde, and being drunk, helpeth against ardent vrine, or the sharpnesse of the water.

Aqua Falopij.

FOR this water, if you desire the composition thereof, I referre you to the Authour, namely *Gabrielus Fallopius* in his Treatise *De Morbo Gallico*: but heereafter I meane to set downe some severall compositions thereof, for the Authour hath diuers.

It is a water proper: cheefely of *Mercury* sublimed, I say cheefely, for that though the other thing for quantity be ten for one, yet sublimed *Mercury* will carry no coales, but will euer shew his valour in healing or spoiling: I put not this composition ready made into any Surgeons chest, but leaue rather the Ingredients, and let the discreet Surgeon make it to please himself, for if I my selfe should find such a composition made by any, I should much feare to use of it, and so I wish the Surgeons Mate to doe in all Mercuriall Lotions, and rather let him use such other good Lotions, as are set downe in the cure of the Scuruy, vnto any which hee may adde sublimate, and rearme it if he please, *Aqua Falopij*, but I say let him well vnderstand

vnderstand himfelfe both in the composition, and administration of any fuch medicines, or let him craue aduife, or rather forbear them, and vfe other fafer medicines, though their vertues or vices perhaps be fewer.

Aqua viridis.

THis Greene water which is held a maximum by some Surgeons hath his tincture from *Viridi Aere*, and likewise his astringent tast, and vertue, his chiefe vfe also is concerning the cures of *Ophthalmie* in the eies, and also against diuers rumes, or distillations of humors troubling the eyes, guttatim or droppe-wise administred, the description of whose compolition I referre the Reader to the rest of my compositions, where they shall bee found together; but I vfe in place thereof *Lapis medicamentosus*, which in his place also shall be spoken of.

Aqua fortis.

A*qua fortis* or strong water: I haue, to satisfie some Surgeons, put this water into their chests, but for my selfe I see no reason for it, I know no Chirurgicall vfe it hath which is not far better performed by oyle of *vitrioll*, wherefore I referre you rather to oyle of *vitrioll*, for it is a farre sweeter and surer medicine, as at large shall be spoken of in his place.

Veriuce.

Veruiſe or Veriuce made of the iuyce of crabs is a good cooling medicine to be giuen in drinckes against burning feuers, it helpes well digestion, causeth appetite, reliseth well meates and drinckes, and is cordiall, familiar, and pleasing to the taste; but it will not liue aboue one yeare in good force at Sea, yet I giue way to the putting it into the Surgeons chest, for that it is often desired by Surgeons.

Lotion.

Lotion: this word *Lotion* is a generall phrase with many Surgeons, as if there were no difference in *lotions*, when their differences are infinite: but here I will meane it as the vulgar sort do: A *lotion* compounded of vulnerary hearbs in their prime gathered and decocted with *Alluminis* and *mell in aqua pura*, this *Lotion* I confesse may retaine a name generall as well as any one outward medicine I know, for well prepared, thereof are good vses made, as namely and most commonly it is all in all to be vsed as an iniectiō generally for griefes of the yard, as well within the passage as also twixt glans and preputium, and in *Gonorrhœa*, which though it cannot cure the disease, yet it healeth the excoriations thereof, and strengthneth well the parts, and so doth it in all exulcerations of the same, remembering that if you vse it within the passage of the yard, if you find it bee too tart of the Allome, you mixe it with Plantan-water if you haue it, or for want thereof with fairewater. Note that for the first time you beginne iniectiō, let it be very gently done, then you may fortifie it as you see cause, namely giue it of it selfe, or with the addition of a little well duffified *mercurie* where occasion is, but that warily, namely, seldome or neuer within the passage, but twixt glans and preputium daily, if you will vpon iust occasion, and administer no *Lotion* within the passage of *Virga* cold, but warme euer: further it hath the prime place, for a Catholicke medicine in exulcerations and excoriations of the mouth and throte, both in Towne and Countrey, and is becom in such cases eury old wifes medicine: I haue touched it in the cure of the Scuruy, wherefore here for haste I craue pardon: Only let me tell the Surgeons Mate that in want of such a *Lotion*, though it be not in all points answerable thereto, yet he may make a good *Lotion* at sea of fresh water, Allome, and Hony, prouided he be wary not to be too plentifull of the Allome.

Lixinium forte.

THis is to be vnderstood Capitall lees, a very necessarie medicine to be at hand in the Surgeons chest, to mollifie the liquid or white caustike when it groweth dry, and also if need be by decoction *per se* to make vp a *lapis infernalis* as some tearme it, or a hard causticke stone: the liquid causticke is made only of vnslaked lime and strong Capitall lees by decoction together to the thicknesse of an vn-
guent, and when occasion of application thereof is, lay on the grieve a *minium* or some other cleauing Emplaster with a hole cut therein, so bigge as there shall be occasion to make an orifice, and thicke spread the white causticke thereon, & let it remaine thereon at the least two houres, hauing a care so to defend the same that it doe not spread.

The causticke stone if you boile it to a iust consistence and hauing put it out, being yet warme, smoothe it ouer with an iron splatter, then with a knife cut it into pieces, you shall haue it ready to make incision after your owne will, for any causticke laid on an Aposteme may spread further and broader then thy will to the damage of the Patient, but this kinde of causticke you may hold in your hand wrapped in some cloute or piece of plaster spread, and so you may rule it at your owne desire, and yet it maketh greater spread with lesse paine then the other. Somewhat of this manner of incision I haue mentioned in the cure of Apostemes and elsewhere, to which I referre you for this time.

Lixinium commune.

FOr this medicine I referre you to the Treatise of salt in generall.

Acetum

Acetum Rosarum.

Vnderstand that vineger of Roses is or ought to bee vineger of wine first, and then by the infusion of red roseleaves elect therein it is the more fragrant and cordiall, so that it is the better to aromatize the stomacke, and to refresh nature weakened, and against the fainting and great weakenesse of the spirits, wherein the tincture of roses hath a great vertue comfortatiue.

Yet let not the Surgeons Mate bee discouraged though he haue not *Acetum rosarum*, for *acetum vini* or wine vineger will serue well in place thereof, and yet better if you haue Rose-water to infuse therein vpon occasion of vsing the odour thereof, or for to be applied to the stomacke against vomiting, or imbecility of the stomacke. In other cases the one may stand for the other very well, as also for those griefes.

Acetum vini.

Wine Vineger helpeth the vnnatural swellings of the belly, as also cureth the fluxes of the stomacke, the parts grieued being fomented therewith: it staiech the inordinate menstruall fluxes, the region of the liuer or the bearing parts fomented therewith warme, namely with *stupes* wet therein. It is good against vomiting, the stomacke outwardly fomented with warme *stupes* wet therein: It also discusseth and dissipateth violent hot tumors in their beginning, yea euen those which are named *Panaritia*, or as some tearme them fellons. Good wine vineger excelleth, vsed in *Cataplasmes*; as also in fomentations where anodine Medicines are to be vsed, provided the place bee not excoriated, as namely in *Hernia humorali*. With beane-meale, and oyle of Roses it is a present helpe well applied, with also apt trussings and care had. In the falling downe of the fundament it is approued good; sometimes with wine

wine vsed warme to foment the part withall, as also to bee cast on bricke to recieue the fume thereof. In the hotte Goute, and in all inflammations, as the *Rose*, or *Ignis sacer*, or as some call it *Saint Antonies fire*, by way of fomentation with wine vineger it is a precious help, as also made into a sirupe with hony, then tearmed *Oximell*, or with sugar, then tearmed *Oxifaccarum*, it is very conuenient to a weake stomake, for it causeth appetite, and is a helpe to digestion, giuen ζi or ζij at once, for it cutteth away flegme and refresheth nature, and corroborateth the stomake, also by way of a Gargerisme: it is an approued remedie againe *Squinantie angina*, or any the suddaine inflammations of *Columelle*, or the *Amigdales* of the throate, and if *Roses* be put therein, it is for all the aforesaid vses, yet more better, and it maketh the Vineger much the more cordiall: It is very questionable whether wine vineger bee of temperament hot or colde, considering the different effects thereof, for I should not doubt to giue reasonable content to any vnpartiall Artist that it doth both the effects of a hot and cold medicine, proouing it both by authoritie and practise to be hot and cold, yea euen by *Galen* himselfe, *Teste cap. 6. lib. prim. simpli. med. & cap. 20. eiusdem lib.*

Spiritus vini.

Spirit of wine of all vegetables is the most pretious thing, it is the truest cordiall amongst all cordialls, the particular vertues thereof to be duly handled would fill a great Volume; it is called, as is said, *Spiritus vini, quasi Spiritus vite*, and the sacred Scriptures testifie that wine makes glad the heart of man, wherefore there needes no further argument to expresse it to be a true Cordiall. It is odoriferous and of a pleasant taste: It extracteth out tinctures from euery medicinall subiect.

It preferueth the body from putrefaction, and in euery cold oppression of Nature it is a true helper, for the cough

and for all distillations of rumes and fluxes it is a perfect helpe: It comforteth the stomake, and prouoketh appetite.

It helpe:h those which are thicke of hearing, daily one droppe put into the eare.

It preserueth a man in health, the vse thereof euery morning and euening certaine droppes being taken, and defendeth the body that taketh it from the oppression of infectious aires, and being sicke almost in any disease it may safely be giuen as a true restoratiue medicine. All sorts of the Cordiall strong waters recited, for so much as they containe of *Spirit of wine* in them, as is said, they become thereby Cordiall indeed, if not otherwise: for take from them the Spirit of wine they containe, and the remainder is not worth roome in a glasse. Much might hereto good purpose be taught of the true vse of Spirit of wine for the cure of wounds, vlcers, fistulaes, and many other infirmities if time would serue, which for want of leasure I must pretermitt.

Spirit of Vitriole.

FOR this medicine I referre the Reader to the generall Treatise of *Salt*, and to that part which mentioneth *Oyle of Vitriole*, where he shall be satisfied.

Spirit of Terebinthine.

THIS Spirit of Terebinthine is a subtile, volatile, pure, and a christalline spirit extracted from *Terebinthine*, which how much the more noble the subiect is, so much the more excellent will the spirit be. It hath many pretious vertues medicinable, contained in it: it is wholly combustible, penetratiue, of a warming and comforting faculty: it is a good *menstrum* to draw Tinctures by, either from vegetable or minerall medicines, and chiefly it is vsed to extract the tincture from Sulphur, which tincture

ture is a singular good medicine many waies, as in his proper place I meane to touch. This said spirit is a true Balsame in the cure of all new wounds, especially of the sinewes. It comforteth all the sinewy parts of the body afflicted with any cold impression, as convulsions, the Scuruy, or the like. It prouoketh vrine very well 10 or 12 drops taken in wine fasting, and driues out grauell and the stone. It is also good to consolidate any inward wound penetrating into the body, a few drops thereof daily drunke. It is a fit addition for any *Vnguent* seruing for a cold disease to amend the warming force thereof, and to cause it to penetrate the better. It hath many other singular good vses, which for breuitie I must passe ouer.

The white Causticke.

THis kinde of Causticke taketh his vertue from the vegetable salt it containes, and may well be carried in the Chest, for that it will last well an East India Voyage, with some times the addition of a little capitall lees, as neede shall require, namely when it groweth too hard. It is altogether as safe and sure as the Causticke stone, but not so swift in working, neither so well to be ruled, for it will often spread three times as wide as it is intended, if it be not warily preuented: which thing is dangerous to the Patient, & disgracefull to the Artist. Wherefore if I had capitall Lees I would rather boyle vp the Causticke stone; but then againe, except the Surgions Mate know the true height of boyling it, and can cut it into peeces one inch long, as is said, and with one of the said peeces held in his one hand can perforate the Aposteme, it is otherwise all one with the former white Causticke, for being laid on, it will become liquid as the other. It is not sufficient safe to cut a hole, as the vse is, in a spread emplaster of the bignesse he would haue his orifice, and so lay it on, and couer it with a like emplaster: for that this course cannot hinder the spreading thereof, but if hee

will worke surely after that fashion, I meane with any potentiall Causticke medicine, let him cut from a rowle of some soft emplaster that will cleaue well, a peece of $\frac{3}{4}$ j. in weight, or thereabout, and make of it two long rowles, laying one on ech side the place of the Aposteme appointed to be pierced, bringing them at ech end together, for the ends of a Causticke incision ought to be narrow, and the middest broad, if it be artificiall, at least twice as long as broad is a good forme and rather more. Regard also that your incision be made as neere as may be according to the length of the fibers and muskles, and alwaies that it be so made that one end be more dependent then the other; but in Buboës of the emunctories it will seldome fall out so, for that you are constrained to follow the forme of the tumour, which commonly lieth thwart, chiefly in venereal Buboës in Inguine or the groyne. Like wise if the tumour be full, and the Patient in great paine, you shall doe him great ease by piercing the *Esker* in the middest, so soone as it is made to discharge some of the matter. But note this as a generall rule, neuer presse out the matter too forcibly, nor take too much at once out. For howsoever you may justly alledge and conceiue it is putrid & offensiue matter, yet know it containeth naturall calor, & some spirits, and any suddē euacuation thereof will weaken & perhaps ouerthrow your Patient. Wherefore except some extraordinary cause vrge you thereto, force not much matter from a superated Aposteme, leaue that worke to nature onely, hinder not the due course thereof by the foolish vsē of stopping the orifice with a tent, for so thou shalt become an enemy to thy Patient, and not onely hinder his naturall helpe farre about thy Artificiall helpe, but also vncharitably thou wilt choke him vp in his owne excrements, which beware of. And for the furthering the fall of an *Esker* in any Aposteme, where nature hath a breathing, it is meere folly, as I haue said in other places. The longer it lyeth on, the better I like the worke, and if you would vsē all the Art you can,

you

you can not keepe on an *Esker* at your will. Wherefore forget that worke till it be done to thy hand.

I haue much (in my good will) to write of this subiect, namely of the manner of preparation, keeping, & fundry sorts of application of the same Causticke, and diuers other necessary instructions of the seuerall vses of the same medicine in diuers parts of *Chirurgery*, as well as in the opening of Tumours, but my time calleth me to the next. Wherefore at this time I craue pardon.

Salt Absinthij, & Gemme, & Nitri.

WHat my leisure hath not here permitted mee to speake of them or any Salt else, I haue rehearsed them in my Treatise generall of *Salt* in their particular places, to which I referre the friendly Reader. The *Index* will guide him thereto.

Oleum Rosarum.

OR *Oyle of Roses*, is anodine, and doth refrigerate and corroborate, and therefore is good against hot diseases, as *Erisiphilas*. Also with *Mel Rosarum* it is a good Balme for new wounds of the head, and else where; and hath diuers other worthy vses in *Chirurgery*.

Oleum Anetheninum.

O*yle of Dill* is anodine and laxatiue, it concocteth crude tumors, causeth sleepe, mitigateth the head-ach, refresheth the wearied members, strengthneth the sinewes, discusseth winde, profitable for convulsions, and awageth aches, easeth paines, and hath many other good vses.

Oleum Chamamelinum.

Oyle of Chamemill resolueth moderately and calefieth, is good for the collicke, stone, wearinesse, by annointing the parts greued, and for aches, and feuers in all other things other with the former. It is also very convenient in Glisters for all gripings and tortions of the gutts, and yeeldeth great comfort to the intrailles by the good odour and warmth thereof.

Oleum Lumbricorum.

Oyle of Earth-wormes helpeth the aches of the ioynts in any part of the body, and doth strengthen and comfort well the sinewes weakned and pained, and against convulsions and cramps: and it is also a good Balme for sinowes wounded.

Oleum Lilliorum.

Oyle of Lillies doth moderately warme & resolue, awageth paine, mollifieth hard tumors, doth much mitigate the violence of diseases, and is very effectuall against paines of the breast and stomacke, and allayeth the inordinate heate of the reynes and bladder.

Oleum Hipericonis simplex.

Oyle of St Johns worte simple is of a thin essence: it is of temperament dry and anodine, healing sinewes pricked or wounded. Also it is very profitable to them that haue the *Sciatica* to annoint them against the swellings in the Temples, Belly, and leggs throug Melancholie: and it is of very good vse for cold aches and convulsions, cramps, burnings, scaldings, and good to cure new wounds.

Oleum

Oleum Hipericonis composita.

Oleum Aparici, or

Balme Artificiall.

THese three feuerall names of oyles, or different medicines, according to that I intend in the Surgions Chest, is but one and the same medicine. A better Balme then which to heale new wounds the Surgions Mate need not desire to learne nor know. Some Writers call it by the name of *Oleum Hipericonis cum gummis*: some *Oleum Aperici*: some *Balme Artificiall*. The composition whereof with the rest shall follow.

It is best to be vsed in wounds as hot as the Patient can endure it, and for the first time rather hotter. It is a sure medicine for all venemous wounds, all bitings of madde dogges, or of venemous wormes, very hot applied, and the parts about annointed therewith warme, remembering in all venemous griefes a Cordiall is also requisite. In my owne practise it is almost all the vnctious medicine I euer vse for the curing of wounds and contusions, and I neuer repented my selfe of the vse thereof. In piercing wounds and stabbs it is a medicine a Surgion may well rely on, it will not disgrace him. It is a very comfortable medicine against all paines, aches, and witherings of the outward limmes proceeding of cold causes, vsing it warme with good frication, and a plaster of Burgundy pitch spread on lether and applied thereon, or rather *Empla. Stipticum Paracelsi*.

I speake this of practise, and I could say much more of my owne experience touching the worthy praise of this medicine if time would serue: but for this time accept of this abridgment.

Oleum

Oleum Sambacinum.

Oyle of Elder flowers doth lenifie and purge the skin, is good for the obstructions of the Liuer, helpfull for the ioynts and nerues pained, the parts greued being annointed therewith: it procureth stools by Glisters vsed, healeth the yellow laundice, amendeth belly ach, and easeth the griping paines thereof.

Oleum Lini.

Oyle of Linseed is anodine, cureth convulsions, mitigateth the hardnes of the arteries, muscles, & nerues, allwageth the paine of the Hemorrhoides: and helpeth the vnnaturall clefts, chaps, and fissures of the fundament.

Oleum Olorum.

Oyle of Eggs clenseth the skin, taketh away the filthinesse, and all skars thereof occasioned by cutts, or bitings, or at the least much diminisheth them, so that they can be hardly seene: it cureth burnings, killeth Ringwormes, healeth excoriations, and is preualent against any vlcer, chops, or ill matter arising out of the flesh, either in the hands, feete, armes, legs, or in any other part of the body.

Oleum Laurinum.

Oyle of Bayes is a medicine calefying, mollifying, opening and discussing, it doth much mitigate the Collicke deliuered into the body by glister, it is a present remedy against colde greeses of the braine, nerues, arteries and loynes, the parts annoynted therewith, it representeth the violence of a feuer, the *spina dorsi* or region of the
backe

backe bone annoynted therewith, and is good for the Palsie, Sciatica, the hardnesse and paines of the spleene, and is much vsed for to cure the scab, and ring-worme, and in the cure of the Scuruy.

Oleum Absinthij.

Oyle of wormewood doth calefie and corroborate, especially the stomacke, raiseth an appetite, concocteth crude humours, dissipateth and disperseth winde, killeth wormes, and taketh away obstructions proceeding from a colde cause, the parts greued being annoynted therewith, and likewise it is good in glisters for the like occasions.

Oleum Papauerum.

Oyle of Poppies cureth the intemperature of heat in the reines and feuers, and procureth sleepe being annoynted on the nose, temples or eares, maketh lubricke, and lenefieth the sharpe arterie.

Oleum Petreoli.

Oyle of Peter is hot and dry, and by the tenuity of the essence thereof doth penetrate and digest all excrementall matter, it is vsed with profit for the falling sicknes, palsie, giddinesse of the head, and is good for many other griefes arising from cold causes.

Oleum Scorpionum.

Oyle of Scorpions is of speciall vse to breake the stone in the reines and bladder, and *Manardus* commendeth it both in the pestilence, all contagion, & feuers, but cheefely in expelling poyson. And it is also good to aswage the paines of the backe proceeding by distempered kidneys.

Oleum Amigdalarum dulcium.

Oyle of sweet Almonds doth lenifie the roughnesse of the brest and throat, as also the hardnesse & drines of the ioints, is good against the consumption of the lungs, it is also of good vse to bee drunke in the hecticke feuers: it stayeth the cough, alswageth the heat of vrine, healeth vlcers by iniectio: is very good in *Colica* or *Iliaca Passio* to be drunke, and to be administred in glisters.

Oleum Amigdalarum amararum.

Oyle of bitter Almonds doth open obstructions discusseth winde and vapours: but cheefly it healeth deafnesse, the hissing and paine of the eares, lenifieth the hardnesse of the sinewes: and maketh the face and hands faire. &c.

Balsamum Naturale.

Naturall Balsamum, or *Opobalsamum* is very good for them that are short winded, for the obstructions of the liuer, and for greefes of the stomacke, helpeth the consumption of the lungs: and causeth an appetite, and besides the excellent vertue sanatiue it hath, both inwardly and outwardly in the cure of wounds, It hath also many other good vertues.

Oleum Vitrioli.

Oyle of *Vitriole* is exceeding hot and colde, mixed in waters, decoctions, sirupes or conserues, maketh them in taste tart or sowerish, and in colour purple like, delighting them that are sicke of feauers, freeth obstructions, recreateth the bowels: and is very effectuell in the pestilence, falling sicknesse pallsie and stopping of vrine, See more heereof in the Treatise of Salt.

Oleum

Oleum Sulphuris per Campanam.

Oyle of *Sulphur* made from the humid vapors therof, is good to make the teeth white, to take away the morphew, cureth venereall vlcers, expelleth diseases arising from winde or colde, is good against the falling sicknesse, shortnesse of breath, euill affections of the lungs, and easeth the tooth-ach, and is, being well prepared, a true cordiall medicine.

Oleum Garyophyllorum. —

Oyle of Cloues not vnlike to *Opebalsamum* in strength doth sweeten the breath, driueth away putrede humours, discuffeth winde, openeth the pores of the liuer, digesteth colde humours, dissipateth the melancholicke humours healeth olde and new vlcers, staieth the putrefaction of the bones, and alswageth the paine of the teeth proceeding from a colde cause.

Oleum Macis.

Oyle of mace doth calefie and digest colde humours, roborate the stomacke, helpeth concoction, raiseth an appetite, and procureth many other benefits to him that vseth it.

Oleum Philosophorum.

Oyle of Philosophers, or of tile-stones or bricke-bats, the eldest is the best, very like it is to *Oleum Petreoleū* in vertue it doth extenuate and penetrate vpward, digesteth and consumeth all excrementall matter: and is profitable for colde affections of the spleene, reines, bladder, nerues, wombe and ioyns, for the Lethargie, Apoplexie and falling sicknesse, and many other the like greefes.

Oleum Anisi.

Oyle of *Anis. seedes* preuaileth against the collicke arising from winde and colde, against the Tympanie, Inflation and crudity of the stomacke, against the gripings and the crying of the intestines, &c.

Oleum Terebinthinae.

Oyle of Terbentine is taken inwardly for shortnesse of breath, the tyficke, against the stone, the collicke colde and windy affections of the brest: it is outwardly vsed for to heale sinewes wounded, or troubled with any intemperature, also to fill vlcers with flesh, and knit them vp leauing no siccatrize in them.

Oleum Iuniperinum.

Oyle of Iuniper is commended for the cure of the morpew of the skin, it prouoketh vrine, it agreeth with the cure of diseases of the reines, it is good to be taken certaine drops thereof against any pestilentiaall vapours, for the stone, it is also good, and to be drunke certaine drops, against penetrating wounds.

Oleum Spicae.

Oyle of Spicke doth calefie, attenuate, discusse, and is very profitable to them that haue the gowt proceeding of a colde cause, or to comfort any member benumbed, also it is good against the falling sicknesse and conuulsions, the temples and nape of the necke, yea, and the whole head to be annoynted therewith is very profitable.

Oleum

Oleum Antimonij.

Oyle of *Antimonie* or *Stibium* is good for them that haue convulsions, or any astonishing disease, and other euill affections of the braine, foure graines thereof drunke, it asswageth the paine of the gowt and collicke, cureth feauers, helpeth the bladder vlceraed, and wonderfully helpeth the canker, *Fisula pbagedena*, the fretting or eating pockes, the wolfe, and all other sorts of vlcers.

Oleum Succini.

Oyle of Amber helpeth the paine in the head, resolution of the sinewes and falling euill, one drop or two taken with water of Betony or Lauender, or in faire water, it preferueth also from poyson, and mixed with partly water or malmesie, is a singular remedy in discussing diseases of the reines and bladder, bringing foorth the stone, and opening the passages of vrine, it profiteth in the collicke & strangullion. A drop put into a little verbene water, and so giuen to a woman in trauell, it refresheth all the weake faculties of the body, consumeth humours, confirmeth and openeth the braine.

Oleum Absinthij Chymice.

Oyle of worme-wood is good for the stomacke to strengthen it, to stay vomitting, to kill worms, asswageth the paine of the teeth, and is vsed in agues.

Oleum Origani.

Oyle of *Origanum* cureth melancholly, helpeth the dropsie, and cureth the cough, and quarterne feuer, and the tooth-ach.

Syrupus Absinthij.

Sirupe of wormewood is sayd to corroborate the stomacke, helpe concoction, cause an appetite, discusse wind, open the veines, and to moue vrine, kill worms. &c.

Syrupus Limonum.

Sirupe of Lemmons is cordiall and refrigerating, and I may say calefying too, it doth please and profit the appetite, and comforteth all that are sicke of the pestilence, continuall and contagious feuers, as also all diseases, on which exceeding great heat attendeth, cheereth vp the heauie heart, and dispelleth sorrow therefrom, and against all obstructions of the spleene it is a good helpe, and also well approoued good in the cure of the Scuruy.

Syrupus Paupaueris.

Sirupe of white poppies hath an astringent quality, it procureth sleepe, helpeth the cough, hindereth the humours which distill from the head into the throat tickling, and is of precious vse against the pallsie, if it bee vsed in the beginning thereof.

Syrupus Cynamomi.

Sirupe of Cynamon is commended to be very good to Sold men that are cold and weake, and to them whose vigor, humidity and naturall heat diminisheth, it nourisheth much, and begetteth bloud, and quickeneth all the vitall parts.

Syrupus

Syrupus Rosarum simplex.

Sirupe of Roses simple doth quench thirst, especially in fevers, mittigateth their heate, refrigerateth the stomake, and liuer being very hot.

Syrupus Rosarum solutiuarum.

Sirupe of Roses solutiue is vsed as a gentle and safe purge both to old and young when they are molested either with burning or pestilent feuers, or any hot distemperature in their body.

Syrupus violarum.

Sirupe of violets doth breake the acrimonie of melancholie, tempereth the heate of the bowels, bringeth downe the belly by purging it, helpeth the diseases of the throte, as hoarsenese, and the drie cough, and is a chiefe aide to the curing inflammations of the brest, against the plurisie, and quenched thirst in feuers, and is cordiall.

Oximell simplex.

Oximell simple is in great vse for the cure of inflammations of the lungs, and throte: helpeth expectoration and easie breathing, cutteth and attenuateth thicke and slimie humors, purgeth the entralls without trouble, and is good both in cold and hot affections.

Mell Rosarum.

OR Hony of Roses strengtheneth and clenseth the stomake: purgeth clammy humors, helpeth concoction with the temperate heate thereof, alaieth and stoppeth hot fluxes, the Phlegmon of the mouth, gums,
and

and iawes, is singular good with oile of Roses for wounds in the head, and these two with *aqua vita* are very good to cure wounds in ioints where the ioint water gleteeth out.

Diamoron simplex.

OR Diamoron simplex not vnlike Mell rosarum is profitable in Gargarismes, against the eating vlcers of the mouth as aforesaid, and cutteth away flemme, and clen- seth the mouth and throte, and by reason of the pleasing taste thereof is the more comfortable to the diseased.

Syrupus Raphani siluestris.

OR Sirupe of wild Redish breaketh the stone, muni- fietieth the reines, prouoketh vrine, is profitable for the kings-euill, and is an approued medicine in the Scuruie to be drunke daily.

Syrupus Prunellorum.

OR Sirupe of Sloes doth refrigerate and comfort the stomake, stoppeth fluxes, healeth the excoriations of the intralls, the dosse may be $\text{ʒ} \text{ij}$ at once.

Conf: Rosarum Rubrarum.

OR Conserue of Red-roses is good for the heart and head strengthing and comforting both, as also the bowells mittigating their heate, and stoppeth fluxions, and is much the more profitable in any grieffe if a few drops of oile of vitrioll be mixed therewith, but beware of too much.

Confers:

Confer: Anthos.

OR Conferue of *Anthos*, or Rosemary flowers is of much vse in phisicke, because of the force it hath in comforting the braine and corroborating the sinewes, and it is giuen with good successe for the falling sicknesse, *Aplexie*, *Lithargie*, dead and shaking Palsie, but it will not keepe long at Sea in hot Countries.

Rob. Berberies.

OR Conferue of *Barberies* doth refrigerate, and is astringent, it quencherh thirst, and the heate of the stomake, and bowells, it causeth appetite, remooueth the waterish humor of choller, cureth the bloody flux, the flux of the liuer, the often gnawing and wringing of the guts caused by choller, healeth the small pox, and resisteth drunkennesse.

Rob. Citoniorum.

OR Conferue of *Quinces* doth binde, comfort the stomake, is good for choller, stoppeth all kinde of bloody fluxes, and helpeth digestion.

Confer: Liniule.

OR Conferue of wood-forrell doth recreate and comfort the heart, remoueth putrede humors, refrigerateh and profiteth much in continuall, and contagious feuers, being very cordiall, but will perish in hot Countries: great store of this herbe is found in *Soldanie* at the Cape of Good-hope as I am informed.

Confer: Prunellorum.

OR Conferue of Slōes is of a comforting stipticke force, very profitable to comfort a weake stomake oppressed with crudities, good against all fluxes of the belly, and also good to heale all inflammations or excoariations occasioned by the same, either taken on a knife in forme of a *Bolus*, or giuen in glisters.

Electuarium Diacatholicon.

THIS Electuarie Diacatholicon doth purge gently all humors, it is conueniently vsed in feuers, and other diseases which arise from a certaine euill disposition of the spleene and liuer, the dose is ʒj.

Electuarium Diaphenicon.

Diaphenicon purgeth easily, and safely flegme and melancholly: it helpeth the belly ake, colicke, continuall burning feuers, and all euills proceeding of choller and flegme: the dose is ʒj.

Diaprunum simplex.

Diaprunum simplex is commended for a gentle laxative, not only against continuall and hot intermitting feuers, but also against all hot diseases, and against the vices of the lungs, throte, reines, and bladder, the dose is ʒj.

Confectio Hamech.

Confectio Hamech purgeth choller, melancholly, and salt phlegme, and is therefore with great benefit vsed against diseases arising from the same, the Canker, Leprosie, or drie Scurfe, Madnesse, Ringworme, Manginisse,
scabs

scabbes and the like : the dose is ξ vj.

Electuarium de succo Rosarum.

THe Electuarie of the iuice of Roses is powerfull in purging of yellow-choller : the dose is ξ j.

Diatrion Pipericon.

Diatrion Pipericon doth help the stomake, and is good for sower belching, quarrans, cold, and all flatious diseases, or wounds: of the species thereof you may R ξ j, of hony ξ v : put them together being well mixed, and keepe the same to giue vpon occasion to a weake stomake fasting, or at any time It will warme and comfort him much: when men feele their stomackes oppressed with obstructions by reason of cold, now and then a little thereof giuen them will much comfort them, and preserue them well from fluxes of the belly.

Theriace Londini.

THis composition was heretofore appointed by the wisdome of the learned and graue Doctors of the Phisitons Colledge in London, as a thing very requisite, for that the price should be reasonable for the poorer sort, the ingrediencies thereof being neuer the lesse Cordiall, and yet such as are in *London* at all times to be had, it may be vsed well in place of mithridate, and in truth I had rather put my selfe vpon it as a good Cordiall, being fresh made, then vpon the mithridate we buy from beyond the seas, for it is by the *Hollanders* so vncharitably *sophisticated* that a man may feare to take it in his neede: my selfe chanced in *Holland* into the house of a Bore, as they tearme him, to lodge, who liued by making Mithridate and Treakell, and confessed to mee his Mithridate had but nine simples in it, and he had pewter boxes marked so arti-

ficially as no man could discover them to be other then right Venice ones.

I have appointed to the Surgeons chest some of the Species of the *London* Treakell ready powdered, and dry, that the diligent Surgeon at his will may compose a *London* Treakell at sea, namely, by taking hony ζ iij, and of this powder ζ j, and heate them together, stirring them well till all be incorporated, and giue it as neede shall require.

Confectio Alkermis.

Confectio Alkermes preferueth from Apoplexies arising from cold, and melancholly humors, doth very much comfort the braine, and heart, and is sometimes vsed very profitably for them that languish away through long sicknesse, and are subiect to swoundings.

Electuarium de ouo.

Electuarium de ouo is very much commended for prevention, and cure of the plague, and all pestilentiall diseases in expelling the infection from the heart.

Methridatum Damocratis.

Methridate of *Damocrates* is in quality and vertue like to Treakell, but more hotter and forcible against the poison of Serpents, madde Dogs, wilde Beasts, creeping things, being vsed as a plaster, or drunke, it cureth all the cold affections of the head, helpeth the melancholick or those that are fearefull of waters, them also that haue the falling sicknesse, Megrain, paine in the bowels, cares, tooth-ach, and weeping eies, healeth the euills of the mouth and iawes, being plasterwise laide to the temples by discussion giueth ease to the troubled with the Squincy, Apoplexie, cough, spitting of blood, Impostumes, or inflammations of the lungs, or any griefes within the body,
and

and is good against the bloody fluxe, fluxe of the stomake, obstruction of the guts, and against ringing, & tortions in them, being taken with *aqua vite* and the decoction of baullastians, it remedieth conuulsions and pallsie, helpeth the middriffe flatus, Hipocondria, the paines of the reines, & bladder, breaketh the stone, prouoketh vrine and monthly flowers, expelleth other vices of the matrix, yeeldeth a singular benefit for the Goute, profiteth not a little in quotidianes, and quartanes, a quantity drunke in wine, being first warmed, and then taken an houre before the fit.

Theriacha Andromachi.

A *Andromachus* Treackell doth the effects of *Misbridatum Damocratis*, and is also good against the hoarseness of the voice, against the laundice, Dropsie, for wounds of the intellines, to bring forth the young birth dead: to expell and take away the Leprosie, and measils, to reuiue euery decayed sense: to confirme wounds healed: to kill all kinds of wormes: to dissipate winde: to comfort the heart and stomacke, and to keepe the body vncorrupt or found.

Theriaca Diateseron Mesuis.

This *Diateseron* is an ancient composition deuised by the ancient Gracians, and had beginning from *Auecine*, and *Mesues*, or one of them, and according to the Greeke word so named, for that it is made of foure simples, viz: *Gentian roots*, *Bay-beries*, *Myrrha*, and *Aristolechia rotunda*, foure pretious and very cordiall simples, full of medicinable vertues. And for that I would haue it kept in time of neede, I haue thought meete to haue ready powdred the said 4 simples together to bee composed into a *Treke*, as occasion shall moue thee. Only note this, that to one ounce of the said *species* $\frac{3}{3}$ of hony is to be added, and on the fire well mixed, and so it is

ready for vse. By some Writers this composition is called *Theriaca ad pauperem*, the poore mans Trekeil.

The vertues of *Diatefferon* are said to be as followeth.

It is good against poyson drunken, and against the bitings of venemous beasts or wormes. It is also good against all the cold effects of the braine, as convulsions, resolutions of the sinowes, *morbum Comitalem*, the Spasme or Crampe, the inflation of the ventricle or stomacke against defect of concoction therein: and against venemous wounds both inwardly drunke, and outwardly applied. Also it openeth the obstructions of the liuer and spleene, thereby preferueth the body from the disease called *Cachexia* or *stomacace*, which is the *Scuruy*. *Teste Pharmacopœia Augustana, & alijs.*

Dentes Elephantini.

D*ens Elephantinus*, or Elephants tooth hath an astringent force: healeth fellons; and is good for white fluxes of women: the *Ictericia Flava*, or the *yellow Iaudise*, *Morbus Regius*, wormes, and continuall obstructions.

Laudanum Paracelsi Opiatum.

IN the treatise of the fluxes of the belly, it is handled at large, to which I refer the friendly Reader.

Diascordium.

D*iascordium* is helpfull in feuers, as well contagious, as pestilentiall: good for the head-ach, and vniuersall plague, whose dose is from halfe a dragmeto one dragme and a halfe, according to the occasion or strength of the Patient.

Diacodion.

Diacodion.

D*iacodion* remoueth subtile Catarrhes, which distill from the head to the breast, helpeth the cough, and procureth rest. the dose is from ℥j. to ℥j.

Philonium Romanum.

P*hilonium Bom: Magnum* is giuen for the Pleurisie, Collicke, and any internall paine or greefe: it causeth sleepe: stayeth *Hemoragia* or the flux of blood in the inward parts and sneeling: allayeth the greefes of the belly, spleene, liuer, and reynes caused by cold, winde, and crude humours: and taketh away the hicket: the quantitie of ℥j. is the vsuall dose, and it is augmented or decreased as the yeares and strength of the Patient is.

Philonium Persicum.

P*hilonium Persicum* is invented against the abundance of blood, of womens monethly termes, of the hemorrhoides, and for the ouer-much flux of their courses, the flux of the belly, against vomiting and spitting of blood: it doth also consolidate vlcers and veynes.

Philonium Tarsense.

P*hilonium Tarsense* is of the same facultie as *Philonium Romanum*.

Aurea Alexandrina.

A*urea Alexandrina* is effectuall against the cold defluxions of the head: good for weeping eyes, the tooth ach, and head-ach, consumption, collicke, cough, and spitting of blood: and profiteth the paine in the reynes,
and

and intermitting feuers. But the cause why I haue not appointed this good composition, nor any of the three last mentioned *Philoniums* to the Surgeons Chest, though I know them to be good medicines, is because they will not keepe an East India voyage, and *Laudanum opiale paracelsi* is sufficient for ought the other can doe. Wherefore I rest satisfied therewith.

Succus Absynthij.

S*uccus Absynthij*, iuyce of wormewood is good for digestion: killeth the wormes: benefiteh the stomacke: and differeth much from the vertues of the hearbe, this being astringent, the other absteriue.

Succus Acacia.

S*uccus Acaciae* is a forraine medicine, for which wee vse the iuyce of *Sloues*: it doth refrigerate, binde, and repell: it stayeth all fluxes of the belly, healeth excoriations of the intralls, strengthneth much the stomacke: helpeth appetite, healeth vlcérations in the intralls, either vsed in Glisters, or eaten in a Gelly. The dose whereof may safely be \bar{z} j. at onetime, or 2 \bar{z} cannot offend: but I hold the infusion thereof, or the decoction of it to bee the aptest medicine, because of the grossnes of the substance thereof.

Succus Glycyrrhizae.

S*uccus Glycyrrhizae*, or iuyce of Licorice in all his qualities is temperate, but exceeding in heate: somewhat it doth lenifie the throat, & mitigate the *asperities* of the arteries: clenseth the bladder: and is good for the cough: moueth expectoration, and is very profitable against all vices of the lungs and throat.

Succus Limonum.

S*uccus Limonum*, or iuyce of Limons expelling and refrigerating, cleareth the skin of morpew, killeth hand-wormes; and is of speciall vse to bridle the heate of melancholic: to helpe sharpe and contagious feuers: is good to cause a pleasant taste in potions &c. and cordialls. It being very cordiall of it selfe, and the most pretious helpe that euer was discovered against the *Scuruy* to bee drunke at all times; for it mightily openeth all obstructions, and refresheth and restoreth nature.

Pulpa Tamarindorum.

P*ulpa Tamarindorum*, the pulpe or iuice of *Tamarinds* is a medicament excellent and well approued against the *Scuruy*, as well for opening the obstructions of the liuer and spleene, as for comforting and refreshing the bloud and spirits decayed or stopped. Also it purgeth choler: allaieth the heate, and furie of bloud: cureth sharpe feuers, and the Kings euill: extinguisheth thirst, & all heate of the stomacke and liuer: stoppeth vomiting, and is good for the Collick.

Pilule Aggregatiuae.

P*ilula Aggregatiuae*, so called either from the *Agaricum* or the aggregation of many vertues that are said to be therein: for they are profitable for many affections of the head, stomacke, and liuer: they purge phleame, choler, and melancholy; and therefore are of very good vse against continuall feuers, and inveterate diseases, and are described by *Mesues*, whose dose is from two scruples to a dragme and a halfe. But beware of the vse of these pills, where the flux raigneth; for *Agaricum* in such bo-

dies as are incident thereto is a dangerous medicine. I speake this of practise, wherefore remember it.

Pilula Aurea

P*ilula aurea*, or the golden pill, being in colour like *aurum* or golde, because of the saffron in him, they are cholagogall, attracting choller, yea, and flegme too, from the inferiour and superiour venter: and therefore purgeth the head, senses and eyes, & restoreth the eye-sight: they were first made known by *Nicholaus Myrepsus*, who was the first Authour of them; their dose is like that of the pills *Aggregatiue*.

Pilula Cochia.

P*ilula Cochia* deriuing the name from a Greeke word *κόκκος*, a graine (pills being formed small and round like graines of Cicers) doth purge both choller and fleame from the head, the liuer, and from all other parts, wherein such humours are contained, and are found described, first by *Dr. Rhasis*, who is their supposed Authour. The dose is diuers, as before, sometimes great, somtimes small, but $\text{ʒ} \cdot \text{j}$. is the ordinary dose.

Pilula de Euphorbio.

P*ilula de Euphorbio*, pills of Euphorbium, receiuing *Mesnes* for their Patron, are vertuous against the dropsie and Scuruy, for they calcie the stomacke and entrails, purge water abundantly, preuaile also in remouing the cause of tumours, and bring ayde for the paine of the loynes and gowt, proceeding from too much humidity: they are effectuall in the quantity of one scruple, or halfe a dragme, and may be mixed with *Pilula Cochia*.

Pilula Cambogia.

Pills of *Cambogia*, are good to cleanse the head and refresh the sight, to purge collic, steame or melancholy from the stomacke or spleene, they open obstructions, and thereby profit well in the cure of the dropie and scuruy, and for the cure of *Ictericæ flavae*, or the yellow jaundise they are very good, this *Cambogia* is much vsed in Holland and Germany, and Dr. *Harney* of *S^t. Bartholomews* Hospitall, calleth it purging saffron, and giueth it in pills *per se*, in which manner giuen, it purgeth both wayes forcibly, but the pills heere mentioned, purge onely downewards very gently, their dose is ζ ss. their composition shall be mentioned in his due place with the rest.

Pilula Ruffi.

Pilula *Ruffi*, or *Pestilentialia Ruffi*, subscribing to *Ruffus* their inventour, a famous Physician, and fitting for the pestilence and plague, doe rather preuent infection, then cure the infected: for by reason of the aloes the body is freed from excrements, by myrrha from putritude, and by Saffron the vitall faculties are quickened, but infection once possessed, is not alwayes by such light cordials and gentle laxatiues remooued, their dose agreeth with that of *Pilula Aurea*, they are very stomachall, for they refresh much the stomacke, and in any oppressions of the stomacke, where gentle purging is required, they excell.

Benedicta Laxatina.

B*enedicta Laxatina*, or the blessed Laxatiue, it doth open mightily obstructions, purgeth chollic, steame, & all clammy humours from the ioynts, reines and bladder: and is tearmed *Benedicta*, because it benignely looseth the belly, The dose is ζ j.

Pulvis Arcteticus Paracelsi.

THisis a Laxatiue powder, made only of foure vegetables and one *Animale simple*, with also the addition of Sugar, to giue it the more gratefull taste, and the dose is to ℥.j. at the vtmost, besides the sugar: I can speake of the pleasure and profit I haue had by this mean purging powder, I say pleasure, for that it is so pleasant and easie to bee taken, and profit to me many wayes, for it is to me my generall purging medicine, when I would purge downwards vpon any repletion of the body, our generall cause of euacuation downwards, and I finde it indifferent in purging any offending humour, according to the commendations the Authour giueth of it, I can no more misse this plaine and harmelesse ready purge, then I can misse my saluatory: *Oswaldus Gralius* a most reuerent late writer, hath set downe this onely purge, for the cure of the *Podaggar*, giuing it this breefe commendation, it purgeth safely and gently all podagricall desfluxions: and in truth who-soeuer shall haue occasion of the vse therof, will haue cause to commend it, and knowing it will finde small neede of *Puluis Hollandicus* or *Puluis Sanctus*, whose dose at sea must be at the least two dragmes, being naueous and vnfaury, whereas ℥.ss. of this will doe as much with great facility, and without tortions or gripings of the guts, which other compositious cause, I vse to giue it to strong bodies in whitewine, to weaker In Sacke. but at sea it may be giuen for a need with faire water, and some sirupeto helpe the taste thereof, which neuerthelesse is not vngratefull of it selfe.

Trochisci de Absinthio.

T*rochisci de Absinthio*, or of wormewood (saith *Mesues*) taketh away the obstructions of the stomacke and liuer, & intermitting or chronicall feuers sprung thereof, strengthneth the bowels, and causerh an appetite:

Trochiscus

Trochiscus de Alhandall.

Trochisci Colocynthidos, or Alhandall, as the Arabians speake, doe bring away thicke fleame, and all glutinous iuices from the braine, nerues, and other more remote parts, they helpe the chollicke proceeding from a glassie tough fleame, the Apoplexie, Squinancie, falling sicknesse, short breathing, colde and goutie diseases, which scarce giue way to common medicaments, and is described by *Mesues*, the dose is grana 4.

Trochisci de Spodio.

Trochisci de spodio, *Mesues* haue their vse in bilious feuers, which bring also a fluxe of the belly, they allay the inflammation of the stomake, liuer, and continuall thirst.

Trochisci de Minio.

Trochisci de minio, or the Trochis of minium, consume proud flesh, mundifieth sordid vlcers, mundifie callous or hard flesh, and wonderfully cure fistulaes: lookemorethereof in *Iohannis de vigo*.

Folia sene.

Folia sene are hot and drie in nature, they are an excellent medicament purging the belly; it scoureth away flegmaticke, tough, and melancholly humors, from the braine, lungs, spleene, liuer, stomacke, and bowels, as also clenseth the body from adust and salt humors.

Rhabarbarum.

R*Habarbarum* or Ruberbe is hot in the first degree, and drie in the second, of an astringent nature, and is good for the stomake, and liuer, and against the bloody fluxe, purgeth downward chollericke humors, and therefore very profitably vsed against hot feuers, inflammations, and stoppings of the liuer &c. ℥ j is the full dose.

Agaricum.

A*Garicum* or Agaricke is hot in the first degree, and drie in the second, purgeth phleame, freeth from obstructions, attenuateth, clenseth, & dissipateth winde, and helpeth all diseases which spring from grosse, cold, and raw humors: the dose is ℥ j. But beware of the vsetherof in the curing any fluxes of the belly.

Scammonium.

S*cammonium* is hot and drie in the second degree, purgeth downward in vehement manner chollerick humors, and therefore is good against diseases arising from the same, but if it be taken either too much in quantity, out of time, place, or vnprepared, it is very dangerous, excoriating the guts, prouoking bloody excrements, procuring *Dysenteria*, caulng winde, offending the stomake, and distempering the heart and liuer: the dose is eight graines.

A caution.

Aloes cicotrine.

ALoes the best is hot in the second, and drie in the third degree, remoueth cold, flegmaticke, and chollericke humors by purging, digesting, and drying them out, it is a soueraigne medicine for the stomake.

Hermoadactili.

Hermadaetili.

H *Hermadaetili* are hot, and drie in the second degree, they do effectually drawe away phleame, and other slimie humors from the articles; and therefore are very profitable for the Goute in the hands, and feete, and the Sciatica.

Polypodium.

P *Polypodium* is drie in the second degree, openeth the body, and bringeth away blacke choller, and phleme, helpeth the chollicke, and the griping of the belly, and also the obstructions of the spleene.

Cornu cerni.

H Arts horne is to be numbred among Cordiall simples in the highest place, it is giuen in want of Vnicornes horne and not vnfitly, it comforteth the heart, is good against poyson, prouoketh vrine, openeth obstructions, easeh the chollicke, disperfeth winde, killeth wormes in the body, is good against paines of the reines, or bladder, and being taken vpon each occasion in liquors proper to the former griefes, it is much the better in force: Thus much is ment of Harts horne vnburned. And being burned the powder thereof is very good against the bloody, or any other fluxes of the belly.

Euphorbium.

Euphorbium is hot and drie almost in the fourth degree, and besides his extreame heate and notable acrimonie, it hath a certaine facultie of purging, whereby tough and cold phleame with choller, and water are taken away.

Turbish

Turbith Cathapsaris.

T*urpethium* is hot in the third degree, is good to purge phleame, chollericke and thicke humors from the stomake, breast, ioints, and other remote parts, and helpeth the chollicke, and cold aches.

Mirabolanes.

M*irabolani* (whereof there are five kindes, the Citrine, Indian, Bellericke, Chebule, and Emblicke) haue peculiar vertues, some purge choller, others melancholie, others phleame, but as they purge so they binde againe, comforting and strengthening the heart, stomake, and liuer, and therefore are fit purgers of the body in *dysenterie* vpon any occasion, there dose is $\text{ʒ} \text{ij}$.

Cambodigie, or Guttigambe.

Cambodigie is a purging medicine newly found out in the East *Indies*, and thence brought to vs; it is not much vnlike *Stibium* in working; it is already in vse by diuers reuerend Philitions, amongst which Doctor *Haruy* vseth it in *Saint Bartholomews* Hospitall, and calleth it *Crocus purgans*. I finde by my practise it purgeth well the head, and that it is good to open obstructions, and that it is good also against the yellow Iandice, and that it openeth well the spleene, and liuer, and purgeth more downwards then *Stibium* doth, the dose is 12 graines: The recited Doctor giueth it in pills: my selfe, for that I see it purgeth the head haue mixed it with pills for the head, so giue it, and it worketh gently downward only.

Cassia fistula.

C*assia fistula* is hot, and moist in the first degree, tempereth immoderate heate, purgeth gently chollericke humors, and is good for the reines, and kidnies, driuing foorth grauell, and the stone.

Crocus.

C*rocus* or Saffron is hot in the second degree and drie in the first, is good for the braine, quickneth the senses, cheareth the heart, causeth digestion, helpeth the diseases of the brest, lungs, and liuer, it mollifieth all hardnesse, and ripeneth all tumors.

Opium.

O*pium* is colde and drie in the fourth degree, asswageth inward paines, causeth sleepe, stoppeth the fluxe: and desireth care in his vse thereof, for otherwise it is a deadly poyson.

Radix Chyna.

R*adix Chyna*, Chyne-roots preuaile much in the cure of *Lues venerea*, and are good for the giddinesse of the head, taketh away the paine of the stomake, & obstructions, and are profitable for the dropisie, chollike, and gripings of the belly, moueth vrine, causeth sweat, and are helpfull against conuulsions, the pallie and paines of the ioints, and a singular remedie against a consumption.

Sarsaparilla.

S*arsaparilla* is of a hot quality, causeth sweat, especially Sextinguisheth the heat of venereous poyson, and is
O good

good for the articular diseases, vlcers, and phlegmaticke humours, and principally it is good against the french pox.

Sassafras.

S *Assafras* is of a hot and drie temperament in the second degree, commended in taking away obstructions, corroborating the inward parts, helping the Asthmatique, and Nephretike, cleansing the reines from grauell, discussing winde, good for womens diseases, and against any kinde of fluxion, and the *Morbus Gallicus*, or French pox it is a good medicine.

Gnaicum.

L *Ignem Gnaicum* doth exiccate, attenuate, open, purge, moue sweate, resisteth contagion, and infection, and doth wonderfully cure the *morbus Gallicus*, olde vlcers, scabs, and ring-wormes, the best vse thereof is by decoction in faire water.

Cortex Gnaiaci.

C *Ortex gnaiaci* hath the same vertue as the *Lignum Gnaicum* hath.

Cortex Granatorum.

C *Ortex granatorum*, seu *Malicorium* is astringent, stoppeth the laske, and bloody fluxe, healeth the gums moilt, and weake, fasteneth the teeth loose, stoppeth the bleeding of greene wounds, and helpeth the corruption of the stomake, bowels, and the bursting or falling downe of the guts.

Loquiritia.

Liquiritia.

L*iquiritia* in all qualities temperate, yet enclining more to heate, it is agreeable to the lungs, and breath; ro- teth phleame, moueth expectoration, cureth the cough, helpeth breathing, and is profitable for the reines, taking away the sharpnesse of vrine, dissolueth the stone, and healeth the sores of the kidnies and bladder.

Hordeum.

H*ordeum commune* (in english is said to be barley.) cold and drie in the first degree, digesteth, softeneth, and ripeneth all hard swellings, is good for inflammations, excelleth against the soarenesse of the throate, refrigerateth, comforteth, strengthneth, is abstersed, and prouoketh vrine.

Hordeum Gallicum.

H*ordeum Gallicum* more vsed inwardly then the *Hordeum comune* by the Phisitians in medicaments, is of the same nature and vertue as the other is.

Semen Anisi.

S*emen anisi* Anise seede is hotte and drie in the third de- gree, doth discasse the windinesse of the stomake, and bowels: stoppeth the bloody fluxe, laske of the belly, moueth vrine, and monthly tearmes, breaketh and bring- eth away the stone, helpeth obstructions of the liuer, amendeth the breath, and is good for the falling sicknesse.

Semen feniculi.

S*emen feniculi* or fennill seede is hot in the third degree, drie in the first, corroborateth the stomake, openeth

the obstructions of the lungs, liuer, and kidnies, and causeth abundance of milke in womens breasts.

Semen cari.

S*emen cari* Caraway feede is of the same nature, and vertue as *Semen anisi* aforesaid.

Semen cumini.

S*emen cumini* Cummen feede is hot, and drie in the third degree, attenuateth, digesteth, resolueth, discuteth winde, dissipateth phlegmatike tumours, and is good against the chollicke and timpanie.

Semen petroselini.

S*emen petroselini* or Parsly feede is hot in the second degree, and drie in the third, is giuen to them that haue the stone, or Iaundise, as also to prouoke vrine.

Semen lini.

S*emen lini* or Line feedes are hot in the first degree, temperate in moisture and drinesse, softneth all cold tumours, ripeneth, breaketh impostumes, draweth out thornes sticking in the body, expelleth winde, and gripings of the belly, and clenseth the flesh from spots.

Semen fenigraci.

S*emen fenigraci* or Fenigrece is hot in the second, and drie in the third degree, doth mollifie, discute, and mundifie: helpeth cold, hard swellings, impostumes, and Goute in the feete: wasteth, and lenifieth the hardness of the melt: mittigateth heate: is profitable for the matrix in women, and clenseth the skinne from many euills, as itch, scurfe, pimples, wheales, and the like.

Semen Anethi.

S*emen Anethi*, or Dill seeds are hot and dry in 2^d. degree, prouoketh vrine, allayeth against the gripings of the belly, and inflations thereof: taketh away the Hicker, increaseth milke, attenuateth, resolueth, and digesteth humors.

Semen papaueris albi.

S*emen papaueris albi*, or white poppy feedes are cold and dry in the fourth degree, prouoketh sleepe, taketh away subrill humors, catharres, rheumes distilling from the braines vpon the lungs: and helpeth the cough.

Semen Plantaginis.

S*emen Plantaginis*, Plantane seeds are cold and dry in the second degree, stoppeth the flux of the belly, and any flux of blood: and is good for Catarrhes, old and new vicers either of the body or mouth.

Semina 4. frigida Maiora.

THe foure cold feedes, named *Semina 4. frigida maiora* (videlicet *Cucurbita*, *Cucumeris*, *Curulii*, *Melonis*) are cold and moilt in the second degree. The first whereof extinguisheth the feruor or heate of blood, choller, and feuers. The two following are profitable to the stomacke, moue vrine, helpe the vicers of the reynes, and bladder: and extinguisheth thirst, and choller. The fourth and last hath all the vertues of the former.

Semina quatuor frigida minora.

S*emina quatuor frigida minora*, or the foure seeds, cold (to wit, *Lactuca*, *Portulaca*, *Cichory*, *Endiui*) the first whereof

whereof are dry and cold in the third degree, refrigerateth the head, liuer, spleene, reynes, bladder, and limbs: preuaileth against the *Gonorrhoea*, heate of *venerie*: moistneth, lenifieth, slaketh thirst: and causeth sleep. *Ren: Wick.*

Saccharum.

S *Accharum*, Sugar is hot in the first degree, looseth the belly: is convenient to the stomacke, doth cleanse, digest, take away the asperitie, or roughnesse of the tongue, and siccitie, thirst, or drought in feuers: helpeth the reynes, & bladder: and is profitable for eyes dim of sight.

Amigdale amara.

A *Migdale amara*, bitter Almonds are hot in the first degree, dry in the second, they are absteriue more then sweet ones: they doe open and purge the lungs, liuer, spleene, kidneis, vrinall passages, reynes, & bowels; and are good against spitting of blood.

Amigdale dulces.

A *Migdale dulces*, or sweet Almonds, are hot and moist in the first degree, doe extenuate, purge, and cleanse the bowels: draw spittle from the breast, and lungs: are good for the moist, and dry stomacke: cleareth the skin from spots, pimples, and lentils: stop spitting of blood, and ingender choller.

Vna passa.

V *Vna Passa seu Corinthiaca*, or currans, are hot in the first degree, or rather of a temperate qualitie: and by a speciall facultie they haue, they preuaile against the vices of the breast, and liuer: moue, and purge the belly: strengthen the stomacke: purge the head: lenifie and cleanse the breast and lungs.

Amylum

Amylum.

A *Amylum*, or white starch is moderately hot: levigateth the parts exasperated: it is effectually against the fluxions of humors into the eyes: against pustles and hollow ulcers: it filleth with flesh: stoppeth spitting of blood: helpeth the roughnes, and sorenes of the breast, and throat: and easeth the cough. and is very good in the fluxes of the belly to be giuen in glisters against inflammations and excoriations in the intralls.

Cinnamomum.

C *Cinnamomum*, or Cinnamon is hot in the second degree, warmeth, comforteth, concocteth, mollifieth, & wonderfully cheareth vp the heart, & all the faculties of the body, as well Animall, as vitall and naturall. It is very good against the fluxes of the belly.

Macis.

M *Acis*, or Mace is hot and dry in the second degree: strengthneth the stomacke: helpeth concoction: discusseth winde: and comforteth the heart.

Piper nigrum.

P *Piper nigrum*, or blacke pepper is hot and dry in the third degree: expelleth winde: is good against all cold griefes of the breast, and lungs: against poyson, agues, and squinancie: dissolueth, and wasteth hard tumors: caueth digestion: and aromatizeth meates.

Cariophilli.

Cariophilli.

C*Ariophilli*, or Cloues are hot and dry in the second degree, and are Aromaticall, and beneficiall to the heart, and braine: helpeth the liuer, and stomacke: maketh the breath sweet: are good for digestion: quickneth the sight: stirreth vp lust, and taketh away obstructions.

Nux Muschata.

N*ux Muschata*, or Nutmegs are of the same complexion as *Macis*: helpeth the stoppings of the liuer, milte, stomacke, windinesse of the belly, laske, weaknesse of the kidnies, and stopping of the vrine: comforteth the heart, and aromatizeth.

Zinziber.

Z*inziber*, or Ginger is hot in the third degree: helpeth concoction: strengthneth a cold and weake stomacke: breaketh winde: and preuenteth sowre eructation.

Gummi Guaici.

G*ummi Guaici*, the gumme of the *Guacum* hath the same virtue as the wood and barke aforesaid, called *Lignum Guaicum*, and drunke in powder is approoued a good remedy in *Gonorrhœa*.

Opoponax.

O*poponax*, is a gumme hott in the third degree, and dry in the second (if bitter, white within or yellow, fat, tender, easily dissoluing, and of a strong smell, it is good) it doth mollifie, digest, attenuate, or allwage, dissipate, or disperse winde, and is laxatiue.

Of *Bellinum*.

B *Bellinum* doth warme and mollifie hard tumors in the throat, and discusseth *Hermes*'s in their beginnings: prouoketh vrine, and is good against the cough.

Amoniaccum.

A *Amoniaccum*, a gumme so called, it is hot in the third degree: hath the force of mollifying so effectually, that it dissolueth *Tophoes* or hard stones growne in the flesh: easily discusseth other pustles: healeth the spleene hardened: and being giuen in drinke taketh away many obstructions: prouoketh the monethly courses, and vrine: driueth out the stone: dissolueth the Kings euill: is very profitable for aches from cold: that which is pure thereof is like *Thus* formed and in smell, and in taste like *Castoreum*.

Sagapenum.

S *Agapenum*, or *Serapinum* is hot in the third degree, dry in the second, bringeth downe womens courses: profitable against the suffocation of the *Matrix*: resolueth, attenuateth, dissipateth, moueth, dissolueth, and purgeth (though slowly) thicke fleame, and clammy humors: it is esteemed excellent, if cleare, yellow in colour without, but white within: quicke in taste, light in substance, and easie in dissoluing.

Galbanum.

G *Albanum* is hot in the second degree: is good if it be full of drops pure like frankincense, fatt, not full of sticks, strong in smell, neither moiste nor dry in substance: it extracteth, discusseth, bringeth away the courses stoppt,

and the birth: takes away biles, hard kernels, and knots in the body: and helpeth the cough, short breathing, convulsions, and ruptures.

Myrrha.

M*Yrrha* chosen, fragill, or brittle, light, splendent, of little drops, bitter, sharpe, which smelleth sweete, full of whitish veynes being broken, is hot and dry in the second degree: openeth the wombe: procureth the courses: bringeth forth speedily the birth: good for the cough, stitch, fluxe, and bloody flixe: killeth wormes: amendeth the breath: closeth vp wounds: confirmeth the teeth loose, and stayeth the haire shedding.

Mastiche.

M*asticke* sweet in smell, white, splendent, brittle, old, and very dry, brought from the *Isle Chio*, is hot in the second degree: helpeth concoction: stoppeth vomiting: confirmeth the power of reteyning sustenance, is abstersiue: profitable also to them that spit blood, or that are troubled with a cough: it attracteth fleame from the braine; and is good for the breath.

Ladanum.

L*Adanum* is hot and dry in the second degree, doth calesie, and mollifie: open the pores of the veynes; keepeth the haire from falling of the head; stoppeth the laske; prouokes vrine: it is vsed seldom in the Surgeons Chest, except in making a gratefull odour, as when a fume of *Cinabrium* is to be prepared, for the cure of the pox.

Styrax.

S*Tyrax Calamita & liquidus* are both hot in the second degree, doe mollifie, concoct, cure the cough, distillations,

lations, hoarsenes, pose or stuffing of the head, matrix stopped: are good to procure the monethly courses of women, cordiall, exhilarating: opposite to poyson, and doe discurse hard cold tumors, the knots of the sinewes, and the struma. The best commeth from *Ciprus*, *Sidon*, and *Pisidia*: the *Calamita Styrax* is yellow, fast, rosen-like: in glistering fragments, perseuering in smell, though old, and being dissolued of a hony-like colour, if commended.

Belzoin.

Belzoin, called vulgarly *Beniamen*, is hot in the fourth degree, comforteth the heart, and all the faculties thereof, and hath the same power as *Styrax Calamita* aforesayd; the reddish, cleere, full of white drops like frankincense, and of a sweet smell as *Xiloaloes* burned, is chosen.

Tragacanthum.

Tragacanthum, a temperate hot gumme is good for the cough, roughnesse of the Artery or wind-pipe, hoarsnesse and defluxions, being taken with honey, or with sugar, and is commended to be good for the eyes, also it is good to be swallowed downe whole, or eaten in powder against the flixe.

Pix Burgundia, of some *Pix Græca* and *Colophonis*.

Colophonis or *Pix Græca*, is all one thing, and is a kind of Rosine of the Pine tree, it is hot and drie, clenning and healing new wounds, mollifying hard tumours or swellings, and is very profitable against aches of the limbs, proceeding of a colde cause.

Pix.

P*ix Naulis*, or stone-pitch is hot and drie in the second degree, it discusseth, conglutinateth, mollifieth, maturateth, suppleth the hardnesse of the matrix, and hard tumours, cureth vlcers, filleth them that are hollow vp with good flesh, and helpeth cold aches.

Resina.

R*esina* is hot, mollifying, discussing and cleansing, and being taken inwardly, it is good against the cough: mendeth the breast, prouoketh vrine, concocteth crude matters, looseth the belly, expelleth the stone and grauell: and is excellent for the cure of greene and fresh wounds.

Succinum.

A*Mbra citrina seu succinum*, is hot and dry, preualent against the white fluxe of the wombe, fluxe of blood running of the kidneyes, distillations of the head, stopping of the matrix, monethly termes, difficulty of vrine, being powdered and drunke, helpeth immoderate cough, and strengthneth the intestines, and is good to be cast on coales to receiue the fume thereof, to comfort the Arsegut fallen, as also to fume a ship or house in time of infectious aires, as the plague, or when generall fluxes are to be feared.

Cera Citrina.

C*eracitrina*, or yellow waxe, doth mollifie and heate, moystneth temperately, it is good for to amend the milke in the nurses breasts coagulated, it swageth payne, healeth wounds and vlcers, and hath commonly a place in all good vnguents and plasters, it is a good medicine drunke or eaten, and so swallowed downe for to cure the
exulcerations

exulcerations of the stomacke or intrails in fluxes, where inward exulcerations are to be feared.

Mummiã.

M*ummiã* is astringent, helpeth fluxes of blood, the bladder ulcerated, and the inward distempers of the yurd: as also it prouoketh vrine, and is very good to bee drunke in powder against great contusions or coagulated blood within the body.

Sperma Ceti.

S*perma Ceti*, or *Spuma maris*, or the spawne of the whale is sowre in taste, spongy and white in shew, vnfaoury in smell, and waighty, hauing a sharpe quality, it is of a colde faculty, clenseth, and digesteth, and is sometimes v-fed of women, to cleare the skinne from spots and morpew, and it is good also against bruises inwardly, taken with the former, namely, *Mummiã*, and also outwardly warme, to annoynt the parts contused therewith, and a *Paracelsus* emplaster, or of *Pix Grecum* put thereon.

Sanguis Draconis.

S*anguis Draconis* is colde and drie in the first degree: it is of an astringent quality, it closeth vp wounds, and confirmeth the weake parts, and stayeth the fluxes of outward wounds.

Lupines.

L*upines* are hot and drie in the second degree, digest, make subtil and cleanse, kill wormes, driue away the freckles and spots like lentils in the face, alswage impostumations and swellings, the sciatica paine, digest, consume and dissolue *Merbum Regium*: Ripen and open wens, botches, biles and pestilentiall sores.

Cantharides.

C*antharides* are vsed in outward remedies to cause a blister, and sometimes inwardly to mooue vrine : but so they are most dangerous, for they will bring the disease *Priapsma* vpon the Patient in a violent manner, I once knew it giuen, but it killed the party the third day.

Camphura.

C*amphura* or *Camphora* of a mixt quality, refrigerateth and calefieth, allwageth the paine of the head, inflammations of vlcers, wounds, cureth *Erysipelas* or *St. Anthonies* fire, is effectuall against the Gonorrhœa, the white flowers of women, bleeding of the nose, it is good against venoms and poysons : it preserueth the body from putrefaction, and is commended for many other vertues for breuity omitted.

Spodium.

S*podium* an astringent simple, is cordiall, and good for fainting or swoounding, inflammations of the stomack, trembling, melancholly, and other affections arising thence.

Sumach.

S*mach* is wonderfully astringent, drie in the third degree, and colde in the second, it is good for the *Dysentery*, all bloody fluxes, and womens fluxes, especially the white, and the Hemorrhoides, preserueth also vlcers from inflammations and exulceration.

Galla.

G *Alla* or *Gales* are colde in the second degree, and dry in the third, it cureth fluxions of the gummies : helpeth the vlcérations of the mouth, stayeth the fluxes menstruall, and helpeth the mother falling downe, maketh the haire blacke, and consumeth proud flesh in wounds and vlcers, and induceth a good healing to them.

Bolus verus.

B *Olus Armena vel Orientalis verus* is very dry, astringent, it is a good medicine in resisting the fluxes of blood, helping the Catarrhe, Dissentery and vlcers of the mouth, and preuailing against pestilence, all other like infections.

Bolus Communis.

B *Olus communis*, common Bole hath the same effects as the former *Bolus*.

Stibium.

A *Ntimonium, seu Stibium*, vsed in due time and place, produceth very good effects, wrestling well with many kindes of strong diseases, commonly it is giuen in a Tertian, as also to the troubled with collicke paine, it purgeth vpward and downward forcibly, and causeth sweat, it is a good medicine giuen with carefull respect : it killeth many by the violence thereof vnaduisedly administered, I lament to call to minde what fearefull accidents I haue seene follow the vsé thereof, I aduise the Surgeons mate to administer it with great care, the dose is five graines, best taken by infusion. It cureth feours, is good against pestilentiall feours in their beginning. For it cureth

reth such at once taking, and in any other feouours it may be giuen, the body being strong.

Sulphur.

S*ulphur* or Brimstone is hot, concocting & resolving, it profiteth the asthmaticall, cough, collicke, greefe, and resolution of the members: taketh away itch, breaking out of all the body: cureth tetters or ring-worms, and the scurffe, and cureth rheumes and distillations. Seeke further heereof in *Sall, Sulphur* and *Mercury*.

Alumen.

A*lumen*, or *Allum*, is astringent and yet purging, mendeth putrified vlcers, drieth them moyst, consumeth proud superfluous flesh, taketh away the itch, and cureth the scab, and is very profitable in lotions for vlcérations of the mouth, throat, or else-where.

Vitriolum.

V*itriolum sen Calcantium*, or *Coperas*, is hot, astringent and drie, killeth the wormes of the belly, helpeth against poyson, keepeth the flesh moyst and from putritude, consumeth, contracteth and purgeth vlcers. Seek more of this subject in the Treatise of Salt.

Vitriolum Album.

Seeke in the Treatise of Salt, in the end of *Vitriolum* for white *Coperas*.

Cerusa.

C*erusa*, or *Venice seruee*, refrigerateth, drieth, bindeth, extenuateth, gently represseth excrescences, and bringeth

geth deepe wounds to a skarre or siccatrize, and is very good to bee mixed a small quantity at once with *Plantane water*, against the heat and excoriations of the yard, I mean within the passage of the yard.

Plumbum Album.

P*lumbum Album*, or white leade, is colde in the second degree, it is an excellent remedy against inflammations, stiffe and hard vlcers, cankers and fluxions of the articles.

Minium.

P*lumbago*, or red leade, hath the force of binding, mortifying, filling vp hollow vlcers with flesh, bringing downe proud flesh, refrigerateth, closeth vp wounds, and induceth a siccatrize.

Plumbum vstum.

IS astringent, filleth vp wounds, eateth away their excrescences, stayeth the rheume of the eyes, blood, and is profitable against the vlcers of the fundament, hemorrhoides, and their inflammations.

Lithargyrum.

L*ithargyrum*, or *Lithargyrum auri & argenti, & plumbi*, Litharge either of gold siluer, or leade, doe all refrigerate, binde, repress, stop, fill vp hollow places, cleanse, induce a siccatrize or little scarre: and preuaile against the galling of the thighes. The litharge of golde, of siluer and of leade, are all but one thing, though they are of severall names, colour and differences of operations, by reason of their different preparations, they are as *Minium* is, all the sonnes of *Saturne*, and are euen lead & no other thing.

Æs Viride.

Æ*S viride*, or *verdigrece*, hath a sharpe quality, digesting, attracting, extenuating, corroding & absterfue. stoppeth fretting and spreading sores, and eateth the callous hard flesh of fistulaes, good in vlcers and Ophthalmies of the eyes, it is the rust of copper or brasse either.

Tutia.

T*utia* is a gentle drier, good against the distillations of the eyes, astringent, cooling, cleansing, stopping, and filling vp. It is the scumme of brasse in boiling.

Arsenicum.

White and yellow *Arsenicum*, called *arsenicum album* & *Ciurinum*, are enemies to the life of man or beast taken into the body, this minerall killeth any liuing creature, and is of a coroding quality, outwardly applied, it causeth a hard crufted scab with vehement burning, eateth away superfluous fleish, & taketh away haire. It cureth the morpew, the skinne annoynted with water of the infusion thereof.

Argentum vivum.

A*rgentum vivum* doth corrode, killeth the itch & lice, woundeth the intestines, suppresseth vrine, swelleth the body, hurts the stomacke and belly, resolueth, penetrateth and purgeth. But of this see more in the particular Treatise of *Mercury*.

Mercurius

Mercurius sublimatus.

M*ercurius sublimatus*, made of *Argentum vivum*, is excellent against the *Morbus Gallicus*, this medicine truly prepared, is a Laxative, a Diaphoretic, a Diauretic, a vomitive, and the best and worst corrosive medicine that can be devised. *Quere* the Treatise of *Mercury*.

Precipitate.

M*ercurius Precipitatus* is very good to further digestion in ulcers euill disposed, and to dispose them to better healing, by cleansing and digesting them, and because it is Mercury or Quick-silver, I haue no time for it in this place, but must referre you to my Treatise of *Mercury*.

Cinabrium.

C*innabaris* is astringent, hot, extenuating, and hath the vertues or vices of *Mercurius* or *Argentum vivum*. It is of two kindes, either natie which few know, or artificiall, and then it is compounded of Quick-silver and Brimstone, and so is that we buy in the shops.

Flores Anthos.

F*lores Anthos*, or Rosemary flowers, are hot and drie in the second degree, comfort the braine, heart and memorie, and oher senses, amend the speech, helpe digestion, mollifie, cleanse, and cut away fleame.

Flores Balaustrarum.

F*lores Balaustrarum* or flowers of pomegranats are cold and drie in the third degree, they are also astringent :

close vp, and stoppe, they cure the bloody fluxe, bleeding of greene wounds, they are good in lotions for moist and weake gummets, kill wormes, and fasten loose teeth.

Rosa rubea,

R*osa rubea* or Red-roses are cold and drie in the first degree, refrigerate, and are astringent, they purge cholericke humors downward, open, strengthen, and cleanse the liuer from obstructions, comfort the head, stomack, and heart, helpe against consumptions, and inflammations, cause sleepe, and stop spitting of blood.

Flores chamomilla.

F*lores chamomilla* Camomile flowers are hot & drie in the first degree, prouoke the monthly termes, and vrine, are good against windinesse, the chollicke, grauell, stone, aches, feuers proceeding from obstructions, cure wearied parts, also they open, loose, mollifie the hard swollen and stopt parts of the intrells.

Flores meliloti.

F*lores meliloti* flowers of Mellilote are of a drie and hot qualitie, digest, consume, dissolue, and maturate, preuaile against all hot swellings, prouoke vrine, breake the stone, asswage the paine of the kidnies, bladder, and belly, ripen fleame, and cleare the eie-sight.

Flores centaurij.

F*lores centaurij* or flowers of centrey are of a hot and drie complexion in the second degree, purge choller, and grosse humours downeward, open the obstructions of the liuer, kill wormes, cause the course of flowers, are good against the Iaundice, hardnes of the spleene, griefes,
of

of the sinewes, cleare the eyes, heale wounds, and drie forth young fruite.

Flores Hyperici.

F*lores Hyperici* or flowers of Saint *Iohns* wort are hotte and drie in the third degree, breake the stone, prouoke vrine, bring downe womens flowers, stoppe the laske, drie away feuers, are good for burnings, and cure olde, and fistulated sores.

Flores Sambuci.

F*lores Sambuci* or flowers of Elders are hot and drie in the third degree, open the belly, purge slimie steame, and chollericke humours, and are good for hot swellings, and tumours, and for the asswaging the paine of the gout.

Bacca Iuniperi.

B*acca Iuniperi* Iuniper berries are hot in the third degree, drie in the first, and astringent, are good for the stomake, cough, windinesse, gripings of the belly, venemous bitings, infection, contagion of the aire, helpe the lungs, liuer, kidnies, and bladder, and prouoke vrine.

Bacca lauri.

B*acca lauri* or Bay berries are hot and drie in the second degree, they resist poison, helpe deafnesse, contracted and wearied parts, and the paine of the breast, cut vp steame, and take away the scurfe.

Farina tritici.

F*arina tritici* Wheate flower is hot in the first degree, stoppeth spitting of blood, distillations of subtil humours.

mours, helpeth the cough, roughnesse of the sharpe arterie, dissolueth tumours, and clenseth the face from lentills and spots, appeaseth hunger and thirst, and is the principall naturall vpholder of the life and health of man.

Farina fabarum.

F*arina fabarum* or Beane meale is cold and moist, dissolueth all swellings, is very good for vlcers, euills, and blastings of the genitorics, and taketh away inflammations of womens paps.

Farina hordei.

F*arina hordeacea* or Barly meale is cold and drie in the first degree, dissolueth hot and colde tumours, digesteth, softneth, and ripeth hard swellings, stoppeth the laske, and humors falling into the ioints, discusseth winde is good against the scurfe, and leprosie, and allaieth the inflammations of the Goutes.

Furfur tritici.

F*urfur* or wheate branne, is good against the scurfe, itch, and spreading scab, dissolueth the beginning of hottè swellings, doth slake and swage the hard swellings of womens breasts, and is singular good the decoction thereof to cure the painefull exulcerations in the interalls giuen by glisters, as is mentioned in the cure of Disenteria.

Farina Volatilis.

F*arina Volatilis* or Mill dust is vsed in compositions to staye fluxes of bleeding wounds.

Rosmarie.

Rosmarie is hot and drie in the second degree, cureth the Jaundice, and the *Regius morbus* or Kings-euill, comforteth the braine, memory, and inward senses, and restoreth the speech lost or broken.

Mentha.

M*entha* Mints are hot and drie, doth profit the stomake, appease the hickok, stoppeth vomiting, cureth chollericke passions, griping paine of the belly, and the inordinate course of menstruall issue; easeth women in their trauell of childe-bearing, it softneth breasts swolne with milke, and keepeth the milke from crudding therein.

Mellilotus.

M*ellilotus* Mellilote is hot; and astringent, it doth swage, and mollifie hot swellings of the eyes, matrix, fundament, and genitories, healeth the scurfe, and putrifed vlcers, dissolueth Apostumes of the stomake, is good for the head-ach, prouoketh vrine, breaketh the stone, helpeth the paine of the kidnies, bladder, and belly, and taketh away the webbe and pearle of the eye.

Salvia.

S*alvia* Sage is hot and drie in the third degree, and somewhat astringent, stoppeth the bleedings of wounds and bloudie fluxe, openeth the stoppings of the liuer, cureth th cough, breaketh the stone, prouoketh vrine, comforteth the heart, alswageth the head-ach, and paine in the side.

Thymum.

Thymum.

T*Himum* or Tyme is hot and drie in the third degree, is good to cleanse the brest, ripen scume, and for the *Asthma*, purgeth chollericke humours, corrupt bloud, bringeth to women their naturall teares, expelleth the secondine, prouoketh vrine, discusseth winde, extenuateth colde swellings, and helpeth the cure of the falling sicknesse.

Abynthium.

A*bsynthium* or Wormewood is hot in the first degree and drie in the third, it is bitter, sharpe, and astringent, cleansing, purging, and comforting, excellent to purge the stomake, liuer, and reines from chollericke humours, and to stay the weake stomake from vomiting, cureth the landice, resisteth pestilent infection, helpeth the dropisie, and spleneticke, and killeth wormes in the body.

Carduus benedictus.

C*arduus benedictus* or the blessed Thistle is very bitter, and hot, comforteth the heart and vitall parts, moueth sweate, resisteth poyson, is of much vse in pestilent diseases, mittigateth the paine of the reines, and sides, killeth the wormes of the belly, and preuaileth against bitings of Serpents.

Melissa.

M*elissa* or Balme, this herbe is hot in the second, and drie in the first degree, doth bring downe womens termes, helpeth against venome of Scorpions, spiders, and Dogges, comforteth the head, increaseth the memorie, and refresheth the vitall faculties.

Sabina

Sabina.

S *Abina* Savin is hot and drie in the third degree, prouoketh vrine with bloud, moueth the flowers, driueth forth the secondine, liuing and dead birth, cureth vlcers, and eating sores, and clenseth the skinne of Lentils.

Radices Althea.

R *Adix althea* Hollihocke roots are hot and drie in the first degree, they are profitable for the grauell, stone, bloody fixe, tooth-ach, Sciatica, and cough; they cure new wounds, dissolue cold tumors, wennes, hard kernells, impostumes, sores of the mother, and chaps of the fundament, are good for cramps, burstings, and for trembling of the members.

Radices raphani siluestris.

R *Adices raphani siluestris* or Horse redish roots are hotte in the third degree, drie in the second, is good for the stomake, eaten before meate causeth winde, and desire to vomit, but after meat digesteth, purgeth flegme, prouoketh vrine, breaketh the stone, helpeth the dropisie, liuer, sicknesse, old cough, stopping of the reynes, lithargie, chollicke, and hardnesse of the spleene, stayeth fretting, and festring vlcers, causeth haire to grow, and clenseth the face from spots.

Radices Pyrethri.

R *Adices pyrethri* or Pellitory roots are hot & drie in the third degree, good for old cold diseases of the head, & braine, falling sicknesse, and apoplexie, mittigateth the tooth-ach chewed, bringeth forth much waterish flegme

R helpeth

helpeth the resolution of the sinewes, causeth saluation or a fluxe of spitting.

Radices angelica.

R*adices angelica* Angelical roots are hot and drie in the second degree, they doe open, attenuate, digest, cut and discusse grosse humours, they are aduersary to poison, helpe pestilent diseases, cause the flowers, comfort the heart, and vitall poures.

Radices consolida maioris.

R*adix symphiti magni, seu consolida maioris*, or Comfrey roots are hot and drie in the second degree, they doe helpe spitting of bloud, the breast, and lungs, cureth the inward wounds, and ruptures, are glutinatieue, mittigate hot tumours, and heale fresh wounds.

Calx viva.

C*alx viva* or vnslakt lime is hot and drie in the fourth degree, hauing a fierie sharpe, and burning force, concocteth, mollifieth, dissipateth, cureth corrupt stinking vlcers, very hard to be cured: and bringeth them to a cicatrize or skarre.

Album gracum.

S*tercus caninum, seu album gracum*, is hot and astringent, staieth the laske, cureth the Squinancie, helpeth the Difenteria, and driueth away feuers that come by course, and is very good to strew the fundament fallen withall, for it cureth the slipperinesse thereof, and causeth it being gently put vp to stay vp, and being mixed and boyled with sallet oyle to the thicknesse of an vnguent, is very good to cure the painefull Hemorroydes.

The

The Conclusion touching what
hatb beene spoken of the vertues of Medicines
Simple or Compound for the

C H E S T.

THe vertues, vses, and doses of all the precedent Medicines here noted, haue beene gathered from such Authors as either were the Inuentors of them, or formerly haue taken them vpon them, to whose workes I referre the Reader, which thing if any well disposed Artist vpon good ground shall question, I doubt not to satisfie him. The Authors I haue vsed herein are these following.

Galenus.

Mesues.

Auicenna.

Tagaltius.

Vigo.

Paracelsus.

Iosephus Wnerritanus.

Renodeus.

Iohannis Iacobus Wekerus.

Dodonens.

Valeius Cordus.

Riolanus.

Rorlandus.

Ozwoldus Zollius.

Dorucretius.

R 2

Augustanus

*Augustanus.**Montanus.**Matheolus.**Fernelius.**Diascorides.**Franciscus Arceus.**Monardus.**Nicolaus Alexandrinus.**Serapius.*

And some others whose names sometimes I haue remembred, and noted : sometimes for hast pretermitted them ; wherein I confesse I haue done them hard measure, like him which in hast ouerrunne his good friends, a fault too common.

Of Wounds.



Wound being a recent solution of a Definition of a wound. continuitie; or a diuision of that which was knit together without putrefaction; and common as well to the soft and organicke parts, as also to the harder: it may (though seldome it doth) arise from an internall cause, as the ma-

lice of bad humors, but more commonly it comes from an externall cause, namely by the violence of some instrument. For which cause a wound is said to differ in his denomination: for sometimes it is called a thrust or puncti-The diuers appellation of wounds. on, which is made by stabbing with any thing sharpe pointed, as a Dagger, Rapier, or the like: sometimes it is named a contusion, when a weighty thing offending (as timber) falling downe or violently cast downe (as a stone), the flesh being bruised and broken: sometimes also it hath the appellation of incision or an incised wound, for that it is done by an edged instrument, as a knife or sword. And these wounds are either simple or compound: the simple being onely in the vpper skin or flesh without detriment or losse of substance, which also haue their seuerall species or kindes, because of their diuers formes: some being greater or smaller, profound or superficiall, long or litle, straight, round, or crooked; of a facile cure, or difficile, or mortall. And for the sounder iudgment and better cure of all wounds (which are either externall, or internall and penetrating) there are seuerall signes with much diligence to be had in remembrance of ancient tradition, which daily practise also verifieth.

The seuerall differences of all externall wounds are discerned by sight or handling.

Those

The places of
internall
wounds.

Those which are termed internall and penetrating wounds, are either in the head, breast, or inferior venter, and are discovered likewise by sight, by feeling, or by searching with an instrument into them.

The hurt or ruption of the membranes or braine is accompanied with sneezing, vomiting, bleeding at the nose, or eares, rauing, and the like: but if the substance of the braine be hurt, those signes are increased, and a bilious or sharpe vomiting is seene; also a feuer, dull vnderstanding, with alteration of fauour and countenance do ensue; stupidity also and dumnesse signifie the braine confused.

The Breast is obserued to be wounded and penetrated, when ayre commeth forth of the wound, or when the person sicke hath in his mouth a sense of the things applied to his grieffe.

It appeareth that the Lungs are hurt, if the respiration be difficult, a ratling sound in breathing be hard, and the excrement which is voyded from the mouth be spumous, pale and crude.

The *Pericranium* hurt hath sometimes suddaine and often swounding for a signe, though some neuertheles hauing the *Pericranium* wounded or confused, haue no euill symptoms extraordinary to other meane wounds of other parts.

The *Heart* wounded hath the refrigeration of all the parts, extinction of naturall heate, and death attending thereon.

If the great Veynes and Arteries in the Breast be offended, an immoderate flux of blood, defection of virtue in all the faculties, a cold and an vnfaourie sweat doth ensue, and death within a few houres.

The solution of continuitie in the sinowie parts of the *Diaphragma* causeth convulsion, difficile respiration, an acute feuer, rauing, and death: but if the fleshie part only be agreeued, it is subiect to remedies, and suffereth not such dangerous symptoms.

If the recurrent Nerues be wounded there followeth
losse

losse of speech immediate motion and sense also is suppressed, and that without recouery.

In the wounds of the Liuer appeare vomiting, bloody dejections, much paine, a continuall feur; and if they be deepe, fainting resolution of the spirits, cold sweat, and death follow.

The Splene offended is as the Liuer affected, saue that the symptoms are in the right side, th'other in the left.

The Ventricle is demonstrated to be wounded by the voyding of *chylus*, frequent vomiting, swoounding, fainting, and death.

When the excrements are reteyned in the belly, and issue out of the wound very vnseasonable and putrified, and not by the naturall place, it is plaine that the intestines are hurt.

The signe of the Reynes or Kidneis wounded is the suppression of vrine, which causeth a sore paine in the groyne and testicles, with inflation or swelling euen to death.

The accidents of the bladder offended are one with the reynes, vnlesse the sinowie parts thereof be greued, and then distention of the belly, pissing of blood, vomiting, voiding of vrine at the wound, suppression of the faculties, and doting, and death follow.

When *spine Medulla* or the marrow of the backe bone is hurt, there followeth the resolution of the sinewes (which hindereth the function of the sense and motion) voluntary euacuation of excrements appeare, and for the most part death is the immediate conclusion.

The solution of a Veyne is knowne by blood of red colour and thicke substance.

The testimonie of an Arterie hurt is blood somewhat yellow, subtile, thin, hot, beating and leaping, or violently issuing, and as it were by iumps.

The tendons, membranes, and Ligaments wounded or incised bring the same symptoms as the Nerues doe.

The Cure.

Wherein the
cure of wounds
in generall doth
consist.

THE Cure of wounds is either by the helpe of nature or medicine: if by nature, the strife is at an end the Artist my saue a labour; if by medicine their cure consisteth both in the reduction of parts disioyned and dislocated, to vnion, and in consolidation and true conglutination of them: therefore it shall be necessary to consider that if any thing hinder consolidation it be removed: that reduction be rightly and skilfully wrought, lest the parts adioyned fall into relaps, and that the substance of the part with his naturall temperament be conserued: and lastly, that the symptoms be preuented and carefully cured as they arise.

The first intention in curing of wounds is to take away whatsoeuer is besides nature, as yron, wood, leade, or ought else with fit instruments, and that without paine, if it may be, to the diseased, that consolidation may the better be affected. In wounds of the head to take away the haire or what else might seeme to hinder the good application of medicines to the greefe, is the first part. Striue also to set well the veines and nerues displaced, that the beauty and due office of the member be not diminished, and that it may conglutinate the easier, and being vnited keepe them so by Ligature, suture, and other due, and artificiall meanes.

It is requisite also that the naturall temperament of the part be carefully preserued: and that is done by a certaine carefull regiment of the body, which is vniuersall or particular.

The vniuersall regiment, consisteth in purging medicines, as potions, glisters, a sober and frugall dyet, abstinence from wine, veneric, and all kindes of meats which may moue or attenuate humors, & moderate vse of good nourishing sustenance, all which helps the poore Sea-man is not capable of in long voyages.

The

The particular Regiment is in remedies which confirme and strengthen the naturall heat of the member debilitated, and which hinder and auert fluxion: such are *Unguentum Nutritum diapalma*, I meane *Diacalsubios* dissolved in Oyle of *Roses*. *Ceratum Refrigerans. rosatu messue*. *Ungu. deminio*, or the like.

The generall accidents most to be feared that affect the wounded are *Hemoragia*, dolor, tumor, intemperature, a feuer, faintnes of the heart, convulsions, specially where a sinew is wounded.

Hemeragia or flux of blood is stayed by medicaments astringent, fitted and applied with conuenient suture or ligature; and sometimes by medicines causticke, either actuall or potentiall, touched in the Treatise of amputation or dismembring.

The cure of Hemoragia.

A Tumor is an vnnaturall increase exceeding the naturall state in the body, and inducing an offence of the actions of the same, the cure whereof is touched elsewhere.

Intemperature is either ouer-much heat or cold, and his remedies is by opposites, as namely to too hot intemperance apply a cold medicament, &c.

The intemperature of the Liuer chiefly consisteth in oppilation or debilitie of the faculties thereof; and is helped chiefly by wholesome nutriment: the lamentable want whereof at Sea is the cause of many the greuous obstructions, and other euill affects in Seamens bodies: so that oft-times a good Artift shall not be able to heale a meane excoriation.

The Accidents common to the wounded heart, as is said, are swoounding palpitation thereof, a hot burning feuer, and many other.

Syncope is a solution of the spirits which forsake the heart, whose remedy is Cordialls, if God haue appointed life.

A Feuer is a heate in the heart more then naturall, infused and dispersed through the whole body, whose cure

is by purging, bleeding, and good government.

A convulsion is a dangerous disease of the braine, which often-times is a fore-runner or a messenger of death.

The diseases in the braine are either in the membranes, substance, or ventricles, and passages thereof, whose species and symptoms are many, and for the most part very dangerous, and of difficult cure. For if the substance of the braine be offended, the functions thereof are impeded, whence proceedeth doting, melancholy, foolishness, slothfulnesse, Lithargy, frenzy, madnes, losse of memory, deadish sleepe, giddinesse, apoplexie, Paralisis, and diuers other like accidents formerly recited. And if the ventricles of the braine bee wounded, then the motions and senses thereof be greued. Wherefore for the better cure of these wounds in the braine disiccation and siccatrization in due time is needfull, either by simple medicaments, (as *Spiritus vini, bolus Armenia. Terra sigillata. Lithargirum, Cerusa; Tutia, adust lead. burnt paper, Allom water. burnt Viriole*) or by compound medicines, (as *Ung: de siccans rub: Diapompholigos, & Diapalma.*)

Diuers Accidents will haue diuers medicaments.

And as you see the accidents of the wounded are diuers, so the remedies are not all alike: but some are generall, others more peculiar.

Those that are only in the skin or flesh haue no difficile cure: for oft-times Nature with some easie remedy, or a Ligature only doth helpe them: but those that are compound, offending many parts, neede a methodicall and convenient order of curation, which is diuers, as is said, according to the diuersitie of the parts affected: for if contusion or ruption be onely of the flesh vnder the skin, there is required consolidation by easie comfortation, and desiccation, and no suppuration, which is effected onely by nourishing and preferuing the naturall heate or humidity of the member, as in other wounds.

But a contused wound, if it be great, requireth purging glisters, potions, or pills, phlebotomie, a wholesome dyet, perfect euacuation of the humor that commeth from the

veynes,

veines & suppuration of the contused & liuid flesh which two last are effected at the first by mean remedies, (as oyle of roses & mirtils) and somtimes by a *Paracelsus* plaster. It will desire also superating medicines, fitting the greatnesse and nature of the contusion, It may be healed in the manner of an apostume, and if putrification be feared, the vse of a good Lixiuim, of cupping glasses, and light scarification, is most necessary, that the humour about to putrifie may be euacuated, so shall the wound be better cured: but when the wound shall be with losse of substance, then let thy endeauour be by renouation and regeneration of the the substance diminished, or the intemperature, be careful by conuenient digestiue medicines to produce laudable quittance, and that the part affected be kept in his naturall temperament and faculty, for therby it doth concoct and digest the matter flowing vnto it, as also consider diligently the excrements of the wounds, their substance, quality, and quantity, these wil shew thee what is superfluous, not naturall, and what hindereth the action and dutie of nature, that it may be corrected and taken away by fit and conuenient remedies. The medicaments incarnatiue, or for regeneration of flesh, are the flower of Barley, Beanes, Lupines and Crobus, Myrrhe, Aloes. Thus Aristolochia & Iris, which are vsed either by themselues, or mixed with turpentine, *Mel Rosarum* Syrupe of dry Roses, the yolke of an egge, or the like: also *Bazilicum magnum*, *Vnguentum aureum*, are good incarnatiues, the *Emplastrum gratia Dei*, made of iuyce of hearbes, the Emplaster of betony, dissolved with *Axungia porcina*, and follow the generall rule, let the dry bee more humected, and the humid more diccated.

Another note
for the remoo-
ning of that
which is besides
nature in a
wound.

The cure of wounds caused through the biting of venemous beasts (as madde dogs, scorpions, vipers, serpents, bees, fishes, waspes, hornets, swine, or other the like, is performed first by taking away that which is virulent, extracting, dissipating and consuming the poyson, which work requireth internall as well as externall medicaments. The

How to cure
venemous
wounds, which
is either inter-
nall or externall.

internall must bee such as comfort and confirme the parts diseased (as Theriaca, Mithridatum, Confectio alkermes, Bole Armenie, Conferue of Borrage, Buglosse, Rosemary flowers, and the like) that so the virulent vapour may bee abolished, which otherwise will infect the whole body. The external must also intend to extinguish the venemous vapour (and such are cupping glasses and scarification, also all hot medicaments attracting, as Galbanum, Ammoniacum, Bdellium, Emplastrum Diachilon and Diuiniuum, a Fomentation made with the hearbe Dragon and Mugwort boyled in wine, Treakle, Garlicke, Onions, Fimus columbinus and the like) which being done, the cure shall bee after the manner of other wounds of the same magnitude, but in mine owne practise, I heat Balme Artificiall seething hot, and apply it for the first dressing if I feare venome: and if I feare a Gangreene, I vse Ægyptiacum as hot as may be, and ouer the wound I apply a Lixiuuum: slender and wholesome diet is also good, that may neither increase melancholly, nor heat much the blood, and abstaine from bleeding, vnlesse the noble parts bee tainted, and then thou mayst safely purge, bathe & sweat, which is knowen when the animall faculties are offended.

The cure of
wounds in the
Arteries, wherof
it doth consist.

The wounds in the veines and Arteries, bring with them commonly a fluxe of bloud, which to stay is a speciall businesse, consisting cheefely of astringent remedies, good application, suture, ligature of a veine or artery, if it may bee done conueniently, and sometimes causticke medicaments: yea incision, phlebotomie, the vse of cupping glasses and ligature on the parts opposite, which three last are not alwayes to be presumed vpon as safe courses, but vpon neede, if so be the veine or artery wounded be great: many things are of force put in practise, which otherwise seeme very harsh. The astringent simple to make compounds, are Bole Armenie, Terra sigillata: Thus aloes, mastike, myrrha, Sanguis Draconis, flowers of wheat, barley, mill-dust, and diuers sorts: likewise Allum, Vitriole, Precipitate, mans blood dryed, and sundry more sometime

time to make a Ligature vpon the veine, wounds or artery, which is the binding of each end thereof, being first caught and holden with some fit instrument, and tied with a sure and strong silke thread : but oftentimes it happeneth that the ends of the veines or arteries wounded cannot be found, in which case an actuall caustike remedy, or a potentiall causticke medicament, which induceth an esker, and stoppeth, and couereth the orifice of the veine, is conuenient: some also lay there thumbe on it so long, vntill it bee somewhat of it selfe stayed, and then bind it vp, which is good in meane fluxes, I haue often preuailed so, and after that the flux of blood is stayed let the sicke party bee contained in a place neither too hot nor too colde, and darke, speaking little, that the cure may bee accomplished with more ease to the patient.

The wounds made in the nerues, tendons and aligaments, whether by incision long or ouerthwart, a thrust profound or superficiall or by contusion, great, little, or meane, require a good diet, such as is, meat easie of digestion, refrigerating and causing little blood, but the choice of such things at sea must be forborne, and that the body be kept open by glisters, mollesying and cleansing, and if neede bee by potions easie and gentle, that the humours be not too much stirred to inflammation, blood letting is sometimes needefull, likewise Anodine medicines which resolue and extract corruption, by the pores of the skin, strengthen the part affected, and haue an affinitie, or a certaine property to comfort the sinewes : such are Turpentine and the oyle thereof, oyle of Euphorbium, Rue, Wormes, Yolkes of egges, Rosin, Pitch, as also a Cataplasme made of bread crummes, milke, and a little Saffron, the like made of Althea roots two ounces, mallowes and sorrell of each an handfull, floure of Beanes, Lupines and Orobus, of each two ounces and an halfe, red Rose leaues powdered halfe an ounce, common honey two ounces, Chamomile oyle one ounce, all made into a cataplasme accordiug to Art. But if paine and inflammation

*The cure of
wounds in the
nerues and liga-
ments.*

be in such wounds neere to an article or ioynt, apply a cataplasme made of bread crummes, with the iuyce of *Hyschyami*, or coole hearbes, or *Vng. nutritum*, *Populeon Album*, or some of those, that the burning heat may bee extinguished, or of oatmeale sodden in water with a little oyle: But if conuulsion happen to a sinew wounded or pricked, cut off all the sinew, for if the nerue shall bee wholly abscised, lesser symptomes, through impotency and deprivation of action ensue, then if the middle or any part be wounded, and the cure (and note it) is not so safe to sow it vp together, as some thinke, because his adunation is vncertaine.

The cure of a
nerue contused.

If a sinew be contused without any wound, let it be corroborated by medicaments strengthening and astringent. The cure of the wounds of the head is not alwayes to bee presumed vpon, though small, nor yet dispaired of, thogh great. Consider therefore diligently, whether the braine it selfe be hurt or no, if the braine be offended, it is to bee knownen partly by the inflammation, colour, apostumation, retraction, conuulsion or deprivation of the functions of the senses, and death also is suspected presently, or within a few dayes to follow, and if the palsie possesse the opposite part, it being sound and whole, it is doubtfull, and the sympathie of parts will cause oft times an abscesse in the Liuer and Messenterium, and an Intemperature of the vitall faculty with a continuall feuer and death. It shall therefore be necessary for the wise Artist to know the manner of the hurt, that he may wisely prognosticate the danger, for if onely the *Pericranium* be hurt by incision, without any contusion, and farre from the commissures or seames, it is not dangerous at all to be cured, and the cure to be wrought, is as in other wounds: but if it bee much wounded by punction or contusion, and symptomes arise with a tumour in the head, then dilatation is needefull that the contused blood which is betweene *Cranium*, and *Pericranium* may bee extracted, and let it be quickly done, so shall the symptomes cease and the cure will bee easie, but and if the offence of the *Pericranium* be in the future

future or seame it is more dangerous, because the braine doth sympathize with it, if the Fibres passing through the futures of the Pericranium from Dura mater be wounded or contused it exceeds the other in danger, therefore to resist putrefaction, let the wound be mundified: and if no fracture of the bone be (the wound appearing onely in the flesh (without any offence of the Pericranium, the cure shall be as in other wounds. But if a fracture in Cranium chance, there is required great care, namely, let the forme and magnitudethereof be well considered, obseruing also diligently what bone it is, and in what part it is hurt, and whether the fragments are great or little, or sharp, pricking the Membrans or not, which of what sort soeuer they be they are diligently to be drawne out with as much ease as may be to the Patient, and if they cannot being broader within, then without, let the Trapan be carefully vsed, the vse whereof is touched in the booke of instruments, vnder the name Trapan. Sometimes there is onely a depression, and then a Leuatorie instrument will excuse the vse of a Trapan, and take away the spills and fragments which are vpon the Membrane, and the bloud also which shall issue out vpon the same may by a spung be taken away: keepe it likewise from cold, and of a temperate heat, and the place hurt being well clenfed, poure *mel rosarum* warme into the wound, or two parts of Hony, and one part of oyle or syrupe of drie Roses, or common Honey with Terpintine, with the yolke of an egge, which are remedies mundifying, and gratefull to the Membrans, and ought to be applied warme, but aboue all others the lina- ment of *Arceus* is the chiefeft Balsame for wounds in the head. The generall remedies for wounds of the head must neither ouermuch reffrigerate, nor ouermuch calefie, but be of a moderate or temperate calor. The generall manner to proceede to the cure of wounds in the head, is as followeth.

*Speciall obser-
uations, if the
bones of the
head be broken.*

First let the haire be shauen away, the next if any loose bones be, take them out, the next to be done is, if a depres-
sion

Instructions v-
ry needfull the
head wounded
the second time
opened.

sion of Cranium bee, strue with the eleuatorie to raise it. The next is to stay the fluxe of blood if any be, leauing of the grieft vndressed for two daies that the vaines may knit, then inquire of the Patient if hee haue the benefit of nature, if not, procure him one, not many stooles, and onely see he haue naturall stooles once a day, or in two daies, not by potion nor pills, but rather by glister or supposito-rie. The second opening of the wound, if occasion serue, vse the Trapan, or take out any spills or bones that seeme to offend, if they be very loose, not else, force nothing out of the wound, except the Patient his great necessitie force thee thereunto; for Nature is kinde, and ready to do wondrous helpe in the cure of the head. For the second application, haue ready of the noble linament of *Arcæus* neuer sufficiently commended, and being somewhat hotter then the partie would willingly beare it, annoint the wound therewith in each place, with a little soft lint on a Probs end, leauing the said lint therein, and with plegents of lint drie fill vp the orifice, and after annointing about the edges of the grieft, apply a plaster, either of Emplast betonie, *Stipticum Paracelsi*, *Munium*, *Mellilote*, or *Diacalstheos*, in want of *Arcæus* linament you may take *oleum rosarum*, and *mell rosarum* which are not inferior much to the former, being warme applied: Some vse therewith also a digestiue of Terpentine, and the yolke of an egge well mixed, ana a like quantitie, wherewith they spread plegents, and then dippe them in the warme *mell* and oyle mentioned, and so apply them, which is very good, and and the most ancient practise in curing wounds of the head.

In want of oyle of Roses oyle of Oliue will do well, and common honey for *mell rosarum*, though not so well: and if cause be, some Artists mix spirit of wine, or good *aqua vite* with the former medicine, and it comforteth well the braine, and very much furthereth good and speedy healing, good bowlstring, and ligature doth much auaille to the cure of wounds of the head: also it is good to keepe
the

the party lying and in a darke place, till the greatest danger of accidents be past, remembring withall that the ouerstrickt keeping him in, may also be very offensiue to the sicke.

Let good diet stricktly be obserued, if occasion be, and the vse of glisters likewise vpon good reasons is also to be approued, and it is good to open the Cephalicke vaine if the braine haue beene long vncovered, or yeelde a spumous white and thicke excrement, which seemes to bee a portion of the substance of the braine: likewise to purge the body, mundifie the wound, and corroborate the braine with Cordialls, and fomentations fitting, as the chiefeft is good wine and hony to foment with, but I sel-dome vse any fomentations, my selfe haue cured diuers fractures in *Cranium* without any fomentations at all, and for the vse of them at sea I know is troublesome, and dangerous except great cause. Be carefull also to obserue the danger of the wound according to the accidents thereof, for if it bee little and superficiall it is cured as an other wound, but if it pierce the second table, it must not be passed lightly ouer, for if you be occasioned to vse the Tra-pan it is to be applied the third, fourth, or fift day after the hurt at the farthest, but the choice of the day is not materiall, as some suppose, where there is apparant necessity, except on the day of the full of the Moone, and then there is danger more then else, but necessity hath no rules.

The cure of wounds in the face would if it were possible be done without a Cicatrice, but that cannot be performed without a drie stitch, with also a most artificiall and conuenient binding the lippes of the wound together, with also a sure naturall balme: wherefore I will not stand to teach the drie stitch here, for it is not proper at sea, it fits the land better. In the worke of suture or stitching, take heed that the skinne and flesh bee not ouerthicke which you take vp with your needle, and let not your stitches be too close. A true ligature of the face is somewhat diffi-

T

cule

*Diligent obser-
uation of the ac-
cidents of a
wound requi-
red.*

cult to be performed, because of the cavitities thereof, which are to be filled with linnen clothes, or tow, or lint, the better to keepe the ligature to the wound.

Where ligature
is needfull.

The Nose and Eare wounded require good and careful ligature, and Emplasters that will cleave fast to the grieve.

The wounds of the eies are dangerous by reason of their affinity as well with the Pericranium as the other Membrans of the braine, so that they are for the most part full of bitter paine, causing losse of sight: wherefore by glisters, blood letting, cupping glasses, purgations, and sober diet the accidents are to bee staied. The medicines outwardly which I haue vsed euer with good successe, is the artificiall Balme with fine lint warme applied on the eyelids, and a *Paracelsus* plaster ouer that, and therewith I haue done great cures in wounds of the eyes: but I neuer dropt any medicinè into the eye it selfe.

The wounds of the neck are healed as other are, vnlesse the hinder part thereof be hurt, which hath like Symptoms to the braine.

If the shoulder be wounded it is cured as other wounds except the wound bee in the ioint bone, ligaments, and nerues, which needeth a suture, and if it be ouerthwart, a conuenient Fascia, or Ligature for the sustentation of the arme is to be carefully provided, for without good ligature those wounds doe not well, but for ought else their cures are common to other wounds.

The cures of the arme are sometimes dangerous, chiefly if the bone, and ligaments, or the muskells with vaines and nerues be incised thwart, let the remedies therefore be such as are proper and agreeable to the nerues, as namely, the artificiall Balme very warme applied, and a *Paracelsus* plaster with ligature fitting.

But if the hands be wounded, and the tendous ligaments, and sinowy parts thereof offended diuers abscesses in many places, with inflammations, and exceeding sore: Sometimes paines arise, which may occasion the vse of purgations, blood-letting, anodine medicaments, and a
spare

spare wholsome diet. In these cures the artificiall bearing vp of the arme is a chiefe part of the cure thereof, and keeping the hand in one euen position.

The wounds of the Thorax externall suffer to bee covered with flesh, and to be healed as other wounds; but Wounds that penetrate the inward parts are dangerous, namely, if any great quantitie of blood lie in the capacity of the Thorax, which cannot be euacuated by the wound, but if it can be euacuated there is hope, otherwise it is desperate. Also if the blood may be extracted, and no internall part seem hurt, heale vp the wound, and be carefull the aire get not into it, but if the externall orifice be little and the internall great, and wide, the Membrane being burst, and a ribbe vncouered, as it oft-times falleth out, it is to be iudged incurable, and a Fistulae will remaine there continually. And if the former part of the Thorax bee strooke through euen to the latter, but not through both, if the wound be little and slender there is some hope of cure, otherwise not, but it is commonly past cure, yet neglect not thy duty, nor despaire, for God is mercifull: Let thy cure be attempted with good diet as is said, glysters, bleeding, syrupe of Violets, and Hysope and the like, *unguentum potabile* drunke fasting ʒ ij, or ʒ for a doffe, and such locall Medicines as are mentioned, but if paine or the like accident shall be in any part of the Thorax, vse Anodine medicaments as well as Sanatine, lest paine hinder rest, and ouerthrow all.

The outward wounds of the belly do nothing differ from the generall methode of other wounds, touching locall Medicines, only in stitching they differ much, but the inward differ as, the parts offended may be diuers, as namely, when the *Omentum* commeth out with all haste put it into his place leaft it corrupt, and the aire alter it, if it shall be put in cold it will putrefie, and bring grieuous Symptoms, it were better to make a ligature about so much as is out, and cut it off being carefull of the guts, if the intestins passe out by a wound, the wound being very

little they will hardly be reduced, vnlesse they be pricked, for they will swell with winde: but if the substance of a gutt be wounded, sowe it together & consolidate it; and if the liuer, spleene, stomacke, kidneis, or bladder be wounded, let nature worke his part, there is small hope by Arte to preuaile.

The wounds of the *Scrotum* are cured as other wounds of the sinowy parts.

The cure of the *Hyppe* wounded agreeth with that of the shoulder afore mentioned.

The *Knee* wounds also are cured as other sinowie parts wounded are. The Ankle, foote, and sole thereof wounded is hard of cure, because there are many bones, ligaments, tendons, and sinowie parts among them: they are also placed in the lowest part of the body, and therefore are subiect to defluxion of humors.

Of Gunshot Wounds.

Wounds by Gun
shot are com-
pound.

WOUNDS made by Gunshot are alwaies compound, neuer simple, and are the more difficult of cure by reason of a certaine humor without the veynes found neere them inclining to corruption, the qualitie thereof being changed by the sodaine violence of the blow. The composition of which wounds for the most part consists of losse of substance, contusion, fraction of many sinewy fibres, veynes, Arteries, membranes and bones, yea often shiuered into diuers peeces, being in forme different, as some round, narrow, and wide, and in figure *cuniculus*, *triangular*, *quadrangular*, *fistulous* &c. at the first bringing with them no *Hemorrhagia* or fluxe of blood, although the veynes be broken and open, the blood returning backe through the fearefull violence of the stroke. The first curatiue intention of these wounds is dilatation, whereby the enemy to nature may by an open orifice bee expelled.

The diuers form
of wounds by
Gunshot.

led. The symptoms of such wounds are *Hemorrhagia*, furious, or a stealing fluxe of blood trickling out by litle and litle, *Gangrene* vnawares assaulting the party: also a posthumation, dolor, and the like. Wherefore as an entrance to the cure, let an vniuersall regiment of the sicke be carefully obserued, namely that as much as is possible, hee vse wholesome aliments, such as resist putrefaction (as sowre and tart things) and which are gratefull to the vitall faculties: and when he eateth, let it be sparing and often, let him drinke very litle wine. If you feare venemous vapors may be gathered, giue him of good *Mithridate*, *Venice Trekle* ℥ss. or *Diatefferon* ℥ss. These rules at Sea are not so well to be obserued as at Land: wherefore let the Sea Surgion therein doe his best, let his ordinary drinke be *Pisians*, or *barley water*: conceale from him the magnitude of his wound: keepe him loose onely with glisters, or suppositories: let him bloud if neede be, and yet but a litle, lest poyson or venome setled in the outward parts, be thereby drawne in backe into the more noble parts: and abstaine to giue him remedies calefying the humor, especially at the first.

In these wounds often appeare exudations of clammy humors, supposed by some to proceed from membrans, and sinowy Ligaments bruised and broken, being changed from sound to vnnaturall and vicious: those humors are to be euacuated, or their dangers preuented by good alteratiue remedies, namely abstersiue medicines, as a good *Lixiuum*, or by *supperatiue*, *mundificatiue*, and *disiccative* things hauing faculty, confirming and strengthening the parts affected. Therefore the feare of a *Gangrene* being taken away, suppuration must be intended in the flesh contused, but if in the parts contused there be a vitious humor, and the flesh about to putrifie, in such cases it is convenient to helpe suppuration with all speed.

But first of all let a good *Alexipharmacum* or *Preseruatine* against poyson be giuen the sicke, if you see cause, namely a litle *Venice Trekle* or other *Trekle* on the point of a

knife, if it be right and good: but if you doe feare the vertue thereof to be doubtfull, as often it is, giue it dissolued in *spirit of wine*, *Cinamon water*, or *good aquavite*, where vnto adde certaine drops of *Oyle of Viriole*, for it exceedingly resisteth putrefaction. You may for a neede giue *Muhrirate*, *London Trekle*, or *Diatefferon* alone: or if the party be of a cold constitution, then giue him *Diatrion piperion*, or good *Rosa-solis* a little. And if he be strong, after he is dressed, you may lay him to bed to sweat, and procure him thereto by a dose of *Diaphoreticon* giuen in *Trekel* or *Muhrirate*, regarding as is said that the sicke haue the benefit of a naturall open body, I meane not many laxatiue stooles for feare of danger. Let care also bee had of his dyet, as is said, so much as the time and place can permit. Which effected, in the next place consider by the view of the wound, what manner of locall medicaments are most fit. And for the first intention of curing, it were fit the Surgion at Sea were neuer wanting of a good *Lixiuum*, to foment the parts percussed or contused, let it be such a *Lixiuum* as I haue described in the cure of *Fraçtures*, but somewhat sharper; to which for breuitie I referre the Surgions Mate. Also haue ready *Ung: Egyptiacum*, and the *Caustick stone*, if it may be: also the *Artificiall Balme*, *Oyle of Viriole*, a good *Restrictiue powder*, good *Ligature* of all sorts, stitching needles ready, with all other fit instruments not farre of, if occasion should bee: as tents, splints, dorfells, sponge, clowts, rowlers, tape, tow, lint, plasters ready spread, and the like, that when an occasion happneth hemight be ready to performe his dutie.

Fronte capillata
post est occasio
calva.

The most notable differences I haue euer obserued twixt a wound made with Gunshot, and an other contused wound, is onely a steeling flux of bloud, and a dangerous disposition to a *Gangrene*, which two accidents warily preuented the Cures of such wounds differ nothing from ordinary wounds contused.

In the curing of wounds of the head, as is said, *Arcuus Linament*

Linament is the chiefest *Balme*: the next therevnto in common vse is *Mel Ros. & Oleum Rosarum* mixed, then *Honey* and *Mel* mixed with good *Aquavite*, if the party be not too hot of constitution. *Ung: potabile* is a good healing *Balme*. also the *Vng: Incarnatiuum*: or *Vnguentum Aureum* is a generally good healing *Balsame*; you shall finde it no lesse. *Basilicon* is also a good healer of new wounds, but the best is the *Artificiall Balme*. For dangerous wounds, *Oyle of Terebinthine* is very good; but *Venice Terbinthine* alone is much better; and common *Terbinthine* is not to be despised; and no more is the ordinary *digestine of Terebinthine*, and the yolke of an egge, of ech alike quantitie well mixed together.

And yet I would not doubt at all without all these recited medicines, to finde sufficient healing medicines in the *Surgions Chest* for double the occasion that can be imagined, which if time would permit me, I would write of.

And whereas putrefaction, as is mentioned, alwaies attendeth great wounds made with gun-shot, all care in time is to be had to prevent the same. Let therefore your first locall application, if you feare putrefaction, be *Vng: Egyptiacum* mixed with *Wine* or *Aquavite*, or alone; being also very hot injected into the wound, or applied on linte. And if you feare it will require yet more exsiccation, or cautzization, adde some burut *Vitriole*, and foment somewhat the outward parts of the greefe with a hot *Lixivium*, and apply a hot stupe wet in the *Lixivium* & wrung out round about the member: but if the outward parts about the wound be altered in colour, or grow either stinking or insensible, make scarification and foment well with strong hot *Lixivium*; and inject thereof into the wound very hot; and after such fomentation, scarification, and injection vsed, as is said. Then if you yet see cause you may vse the former mentioned *Egyptiacum* with a hot stupe, and remoue not that dressing without extraordinary cause, I meane the *Egyptiacum*, in lesse then 48 houres, I meane, if you haue caused a good *Esker*. The next

Directions how
to prevent putre-
faction to great
wounds incident,

dressing

dressings after the *Esker* procured by the former dressing, it is likely you shall finde digestion though vnperfect, namely durty and fowle, and the wound will be very tender and sensible, and subiect to alteration by the ayre, if care be not had. Wherefore all things for your next intention of application being first ready, ere the wound be opened make a very short dressing, and of as gentle medicines as may be. I haue vsed *Arceus Linament* warme, and with soft linte applied: and the edges or parts neere the wound annointed therewith, and gently filled the wound with lint, then ouer that a *Paracelsus plaster*; and ouer all a large hot stupe wet in a good *Lixiuum*, and wrung out, with also convenient, soft, and warme Ligature, which is a great help to healing.

The third dressing I would leaue *Arceus Linament*, and betake me to the *Artificiall Balme*. which *Balme* I would apply warme, annoynting the parts about therewith: applying also thereto some good emollient, discussing, and anodine plaster, as namely *Paracelsus plaster* I hold chiefe; next that I hold *Emp: Betonica* described by *Arceus*; then *Diacalsiteos*, *minium*, *Gratia Dei*, or *Mellilote*, any of which as thy discretion or store affords, will serue. The rest of the Cure I referre to bee proceeded in with balme and plasters, as is said, in ordinary forme: and if any loose bones bee, remoue them; onely force none out before their time without great cause; if no bones be imagined, striue not to keepe the wound open, neither keepe any hard tents within the wound. Many by a custome keepe tents to the bothome of the greefe so long till they make the disease incurable: you neede not bee too vigilant in keeping new wounds too long open, for the feare of putrefaction being once put away, and digestion procured, and no bones to come out, the sooner you can heale the safer. Many Surgeons also haue a grosse custome of arming tents, as they tearme it, with precipitated *Mercurie*, or other the like Causticke medicines, and put them into wounds to mundifie, and also the better to digest them,

as they imagine, but I may boldly affirme, that (as is said) if neither feare of a *Gangrene* be, neither broken bones to be taken out, there is no cause of any Causticke medicines to be applyed for the curing of a new wound at no time. And I finde by practise plaine, that Causticke medicaments within vlcers or fistula'es haue no other vse but to take away a callous substance commonly in them to alter the vitioufnes of the humor, and dispose the greefe to a good healing, which healing after followeth chiefly by the benefit of nature, together with gentle and sanatiue applications, for (*sublata causa tollitur effectus*) the cause remoued, the effect ceaseth, and so of wounds.

It is a shamefull error of many foolish Artists still to be too busie with Causticke medicines: how apparent is it that they lame many thereby, let wise Doctors iudge. They will not see a wound incorne and red, and good flesh to grow, but straight they slander it of pride, and call it proud flesh like their owne, and then must at the fairest *Precipitate* or *Vitriole burnt* goe to worke, yea though the Patient bee lame for it, or at the least the greefe put backe againe. Truly the abuse of good Causticke medicines bringeth much slander to the Arte of Surgery. In the cure of *Ulcers & Fistulaess*, and else where, I haue noted downe my opinion of the true vse of Causticke medicines, to which I refer the Reader.

*An admonition
to Surgeons.*

If therefore wounds happen with Gunshot, which giue no cause to feare a *Gangrene*, then begin the first dressing with *Balme Artificiall* very hot applyed; the next dressing reasonable hott, and so to the end of the cure vsing *Emplasters* and *Ligatures* conuenient.

Of Burnings.

Burning by Gun-powder often times is incident in Armes to Soldiours and others, which wanteth no greuous accidents; therefore be ready at all times with remedies fit and effectuall to asswage them. And begin-

*Of burning by
Gunpowder.
Necessary Rules
for the Cure.*

ning thy worke with *Lotions*, (as namely either a fomentation made with oyle and water, or with a decoction of the seedes of *Quinces*, or of *Mallowes*, *March-mallowes*, *Violets*, and a little *Purslaine seede*) these and the like take away all the powder that sticketh in the flesh, for it hindereth the cure. And to asswage both the dolor thereof, and the vitious humors, *Mel Saponis* is an approued remedy, for it taketh the fire out. And to make it more easie for suppuration, vse *Anodine Medicaments* (as *Ceratum refrigerans Galeni*, populeon mixt with a third part of *Vnguentum album*, or a third part of *Triapharmacon* and *Oyle of Roses*, or *Oyle of Eggs*, or of *Roses* mixt with the white of an egge, *axungia porcina* washed in the iuyce of *Plantane*, or the iuyce of *Solanum*, or in water: also the fat of rustie bacon washed in *Rose-water*, or the like. Also a decoction of wine vinegar lib. j. *Litharge* in powder ζ s, and gently fomenting the part therewith, taketh away all paines. But to perfect the cure, let good sanatiue medicines be applied, as the *Vnguentum contra ignem* in the Chest set downe, whose composition shall be manifested hereafter.

Obserue also, if occasion be, that blood letting be vsed, which is very requisite to auert fluxions, and to auoide putrefactions of humors. But abstaine from purging positions, and the like at the first. With these recited helps administred in their due time and place, with also a good dyet, the Surgeons Mate shall performe much in short time, to the praise of the Almighty and his owne comfort.

The cure of Apostumes.

First what an Apostume is.



AN Apostume is a tumour composed of three The Definition of an Apostume. kindes of diseases, as *Auicena* affirmeth, namely, Intemperature, Incommoderation, and Solution of continuity, all gathered into one magnitude: and *Tagaltius* in his institutions affirmeth, euery tumour against nature is an Apostume: The differences of tumours are many, and are by many learned writers handled at large, of which my leasure will not permit me now to write.

The times of Apostumes are also at large handled learnedly by *Mr. Gale*, *Iohannes de Vigo*, *Ambrose a Paris*, and diuers other good writers, and are noted to bee in number The times of an Apostume are foure. foure, as namely, Beginning, Augmentation, State and Declination.

The beginning of an Apostume is noted to bee the first collection of humour, extraordinarily intruding into any one part of the body, at which time with the Surgeons care, the proceeding of the disease is easily hindered, according to that olde poetick verse, *Principijs obsta. &c.* What the beginning of an Apostume is. The next time of an Apostume is the Augmentation, then the disease hath taken roote, and is not so well to bee put backe, neither is it alwayes necessary nor safe to attempt it: for it may be nature hath determined to send it out, and this second degree or time of an Apostume is sometimes knowne by heate, pulsation increaseth with a distemper generally of the body, and an inclining to a feuor, especially if the Apostume bee hot, or haue malignity therein: but the augmentation of colde apostumes haue often no other signes notable: but onely an appearance of increase,

without any other distemper of the bodie for a long time together.

*What the state of
an Apostume is,
and its signes
thereof.*

The third time or degree, which is the state or ripenesse of the greefe is well to be knowen diuers waies, as namely, the apostume by this time is come to perfect maturity, & the paine is either wholly or partly alswaged, and the matter being neere the skinne, each child in Surgery may iudge what is next in art to follow, by the bearing out and discolouring of the skin, for either it is discoloured blacker, or is very soft, and if the apostume lie deep by feeling, you shall also sensibly perceiue whether their be perfection of maturation or no, also by depressing the cutis a little with your finger.

*When an Apo-
stume will sup-
purate.*
Hypocrat. cap.
2. lib. 47.

Marke also out of the words of the Ancients, to know when an Apostume will proceede to suppuration. *Hypocrates lib. 47 cap. 2.* hath these words, that whilest Pus is in making, paines and feuers doe afflict: but Pus being made, paines and feuers doe decline: And to confirme the former words, *Tagalimus* in his Institutions, cap. 3. hath these following verses.

*Durities longa pulsus dolor & calor aucti
Signant pus fieri: sed facta dicta remissa
Sub digitis undans allefcens pars & acuta.*

*The fourth time
of an Apostume.*

The declination of Apostumes, I cannot stand to amplify, but I referre you, as before, to Mr. *Galles* Institution of a Surgeon, as also to *Iohannes Vigo*, and other good writers, for a more ample doctrine in that poynnt, onely note that when the tumour or apostume is ripe, mine opinion is rather it be opened by a potentiall causticke medicine, then by actual incision, when it may be as conueniently effected, and that for many good reasons, and one sufficient reason in mine opinion is, if you vse incision, you must needes purintents, dossels or the like with medicines, to keep open the orifice, and also to enlarge it, which doing you stop the passage of natures true euacuation twixt each dressing,

dressing, offending the parts adiacent, and hinder the v-
 nition of the disioyned parts, against conscience, detra-
 cting good healing: yea, and thereby hazard diuers euill
 accidents to follow, as fistules &c. from all which by cau-
 sticke incision you are freed, and feare not at all the appli-
 cation of a conuenient potentiall causticke medicine in
 due time and place, especially the impostume being ripe,
 and the skinne thinne, for you can peirce no further then
 thorough the cutis, though you would for being onely
 through the skinne, the matter will choake your causticke
 or corasiue medicine, neither doubt at all, that your work
 shall succede otherwise then well, for nature will provide
 remedie speedily, easily and safely to heale your patient,
 provided you be also carefull to vse your endeauour with
 good warme medicines duely applyed, and with also the
 vse of good ligature, which is one principall good helpe,
 good diet and other reasonable meanes likewise had, for I
 haue euer obserued in my practise, that a hot tumour in a-
 ny outward part of the body, growing either by repletion,
 obstruction, feur, or by the euill disposition of the bloud,
 for the most part: yea, euen in pestilentiall and venemous
 feuers in good bodies, not being pockie nor too too olde,
 are easily healed by any vnderstanding Artist, that can
 ioyne reason and experiencetogether, many feuerall waies,
 namely for one, if you perceiue a beginning, or gathering
 of humours together in any part of the bodie, consider
 what might be the cause therof as neere as you can: if you
 finde it to bee fulnesse of the bodie, or collueneffe, you
 haue diuers present remedies that way to flie vnto, *viz.* at
 the first make the patient a suppository, then giue him a
 glister, if neede bee and a Laxatiue medicine, also accor-
 ding as you shall see cause, regarding the quality & quan-
 tity of the humour abounding: but remember where the
 bodie is colluue, you were best to beginne, as is said, with
 a suppository first, and that hauing caused one stoole, pro-
 ceede with a purge, if you see further cause, or a glister, for
 often onely one suppositorie doth what you require, also

good fomentations that may by the pores of the skinne helpe to breath some part of the matter, will do well, and so the rest by discussing and mollifying medicines the easier be cured. If the grieffe beginne in the head or throat you may vse phlebotomy either vnder the tongue, on the forehead, or on the arme in the head veine, or median veine, but if you perceiue that by emptying the body artificially, and cooling the bloud with conuenient medicines as also answerable slender diet, and opening a veine, that the collected peccant humors will not bee discussed nor put back, then may you proceede to attraction and suppuration as you see cause; for it were most grosse to seeke to detain that which Nature hath resolved to cast forth: wherefore if you see cause to bring forward any Apostume, you may then consider by the quallity thereof what course to take, namely, by attractiues alteratiue or suppuratiue Medicines, as touching attractiue medicines, good attractiues at sea to be had are *Gum Elemmi* of it selfe, spread on lether, and applied; and *Galbanum* also is very good, provided it be dissolved in wine, and not in vineger: *Mellilot* plaster will well bring forward an Apostume hot or cold, and helpeth suppuration: Common pitch is a good attractiue: Burgundy pitch is also good: Of these the discreet Surgeons Maie may vse the fittest in his discretion, and if he desire violent attraction of any slothfull cold tumour, let him set a large cupping glasse thereon. Maturatiues or alteratiue Medicines in the chest and Ship to be had are very many, yea more then I can call to minde at this time, wherefore to be brieve, *Emplastrum viachylon cum Gumis* I put for the principall, for it is for that purpose only; *Paracelsus* Plasters applied thicke spread, the place first annointed with oyle of Lillies, will do well. But where time and place is conuenient in my opinion, a meane Cataplasme warme and thicke applied supurateth best and easiest, viz. make a decoction of *Althea* roots or *Line* seeds, and the cause being cold adde *Fenigreeke* a little to this decoction adde beane

Attractiues.

Maturatiues

or barley meale, oyle of Camomill, Dill and Lillies of each a small quantitie, *Dialthea* a little, or *Axungia porcina* and apply it warme, and shift it twice in twentie foure houres. Or R flowers of Camomill mellilote and of Elders ana M.ß, Wormewood, M.ß, Althea roots brused ζ ß, make a decoction thereof in faire water a sufficient quantity, adding of Beane meale or Barly meale M. j. and being boyled into a due forme of a Cataplasme adde oyle of Camomill or Dill ζ iij. *Axungia porcina* ζ ij. In want of some one of these flowers another for-neede will serue, and if none of them were to bee had yet there is many other meaner helps to bring forward an *Apostume*, which time wil not now permit mee to rehearse. When you haue an intent to bring any tumor to supuration, you must neither purge nor bleede your Patient, neither appoint him a thinne diet. When you would an *Apostume* should go backe, if it be aboue the nauill in the breast, back, or head, then let your purging Medicines be such as purge downward only, but if it be below the nauill, or in the armes, or legges, vomitiue Medicines do best, except some especial hinderances, as *Asthma* or the like: And to those vses none are so effectuall as those which are of *Mercurij* truely prepared, for that they do not only duly euacuate, but also diuert and draw backe the humours from the place offended which in truth is a great helpe to nature. Also blood letting if occasion be, may be vsed for diuerting and mittigating a stubborne disease, but after the vse of Mercuriall purges it is held of many not to be good to open a vaine, of which opinion I am, without extraordinary reason vrge the contrary. And further if you intend to repell an *Apostume* you may make vse of this following Cathaplasme of beane meale, or wheate meale boyled with water and vineger a conuenient quantity that it bee not ouer sharpe, adding a little Terebinthine and very warme apply it, with also good close ligature, and shift, renewing the medicine euery sixt or eight houres, but euer obserue as it is rehearsed, that to repell an *Apostume* slender diet with conuenient

ent euacuation of the belly, and phlebotomie are as principalls to be vsed. Also a safe Cataplasme to repell an Apostume in the beginning is, *R̄ farina fabarum* or beane flower and castle sope, ana ζ j wine vinegar as much as will suffice, boyle these one quarter of an hower together, and you may mixe a little water with the vinegar for feare it breake the skinne, and apply it warme. Note further that to an Apostume broken by a causticke I commonly vse no other thing then *unguentum basilicum* warme, from the first to the end of the cure, or my artificiall balme which I much rather commend vpon my long experience, except some dressings now and then I apply to it onely dry lint, and if nature be not beneficiall to incarne and helpe healing to my desire, I vse a gentle obstersiue medicines namely a little precipitate mixed with the said *basilicum* or else *unguentum Egyptiacum* very hot, but that onely for one dressing at one time, and then to my former course againe for certaine daies together, namely, till the esker be fallen, and at the least three dressings after, which if it giue mee not good content of hope of amendment, then I proceede further one degree, namely, I vse for one dressing of *oleum sulphuris per campanam*, or *oleum Vstrioli*, with which I onely touch the vlcer within: I also giue a purge, thereupon if the Patient be strong, and then to my olde forme againe, till nature be at rest, I meane as is said, till the eskar be cleane gone, and yet fīue or sixe daies further: but if then I see it be still stubborne, I proceed to the next step or degree, and craue helpe from my honest olde friend *mercurie* who if he faile me iudiciously applied, then I confesse I am almost to seeke, but he neuer failed me in my life if my Patient were not the cause, the disease being by Arte curable. The mercuriall medicine I most vse in such cases is *aqua benedicta*, as is rehearsed in the cure of *Fistulaes* and *Vlcers*.

If an Apostume be opened by a causticke medicine the Apostume of it selfe being concavous, I meane having a great hollownesse, going deepe this way or that way, strue
you

you not at all, either with tents, plegents, or dorssells to fill the said concautie, and to diuide the parts asunder which desire vnition, but only dresse thou the outward or superficial part with warme *bazillicum*, artificiall Balme or the like conuenient medicine, putting it a little within the entrance of the orifice of the apostume vpon a little lint on the end of thy Probe, vntill the first, second, and third dressing after the opening be past, and if thou haue any of thy Cataplasme remaining with which thou didst ripen the Apostume, apply the same very warme, if not, apply some good Emplaster ouer it, anointing it with balme artificiall, and applying daily thereto a good Balme or *bazillicum* warme, and feare not if thou make thy applications warme, and vse good rowling and bouldring, which is a principall part of the healing, with likewise good diet and conuenient euacuations of the belly where thou seeest cause, but thou shalt heale comfortably, only forget not if occasion be, that sometime thou make iniection into the concautie of the Apostume with some fitting mundificatiue or obstersiue medicament, namely, with thy ordinary Lotion it will doe well, but vse it warme, and charge it not often with it, nor at all except great cause, yet vpon due occasion if an Apostume turne to a moist watry concauous vlcer, thou maist also adde to thy Lotion *Egyptiacum*, but be not too busie with such medicines. It may be also thou maist thinke how shall a good healing follow where the sore is not searched, and with tents, and like medicines healed first at the bottome: my louing Brother in that thou shalt behold the excellency of Nature in our bodies, which being once eased of the burthen of that vicious and offending humour which was the cause of the disease, it will at first seeme admirable to thee I know, but it is a diuine work, forth she forwith intends healing without thy help, first by little and little daily spuing out the dregs of the disease, and euer as fast within by Gods prouidence incarnung new flesh as the quittance is outwardly auoided, not by meanes of thy incarnatiues I must tell thee,

A caution.

thee, whereon I aduise thee not to trust, albeit they be neuer so good: experience will shew thee that obsteriue medicines, namely, such as haue vertue to scower and excicate or drie, leauing a certaine stipticknesse behind them, doe best incarne iudiciously applied, yea and those medicines which are most causticke of all, are truly most incarnatiue, for I speake this vpon my knowne experience, that vpon the true and iudicious vse of them the vlcer will soon incarne, onely with the vse of drie lint farre more then with any vnctious Medicine whatsoeuer, yea though it be *Vnguentum aureum*, for it is an infallible rule in that diuine ministry of healing, who so can drie well can heale well: if thou with thy ouer many caustickes following each other, or by keeping the parts too much asunder hinder it not, for too much exciccation or drying will make worke, not heale, which beware of.

An infallible
rule.

Some Artists haue in vse long hard tents, this way, that way, or dorfells, or plegents for perpetuall keeping open an Apostume, for, say they, I will see a good ground, and a sound healing at the bottome ere I take out my tents and then I will beginne to shorten them: I say such are vnworthy Surgeons, yet I deny not an Apostume or vlcer may be in such a part of the body, as namely, in the corner of the eye, or in *ano*, which in no wise will safely suffer healing, till some causticke medicine haue well searched, yea, and as it were seared the bottome, which once effected, go on, in the name of God, with your precedent courses of healing againe, namely with all soft, gentle, and speedy healing meanes, as before said.

For *Natura naturans naturat omnia*, and marke it, for by this reason an old wife oftentimes exceedeth a great Artist in healing, for she wrestleth not with Nature as great masters doe, and Nature pleased with her milde and simple meanes is appeased, and by diuine prouidence the disease often easily made whole: for I know it for a truth, and by too much experience of my *owne*, as an eye witnesse in other mens worke I haue seen as great harme done, and as grosse

An old wifes
medicament
better then an
any wifes Artists
medicine.

grosse faults committed by vnworthy Surgeons for want of mature iudgement in ouer-doing, as by olde wiues, or fooles in vnder-doing. For many Surgeons neuer thinke they haue plaied the workmen till indeed they haue made worke : Some by error for want of iudgement, others for base luces sake, prolonging and agrauating with things not only contrary, but also dangerous to nature oftentimes, laying bare the bones, and by caustickes fowling them with their medicines when there is no neede, pre-faging wickedly before hand vpon vnperfect grounds, bones to be fowle when to their shames they haue made them so themselues, as is said, either for want of honestie, or want of true iudgement to consider : wanting charitable and christian reasons, or not being capable what the benefit and force of Nature is able to effect, whereas if they would proceed mildly, and with sleight Medicines they might oftentimes effect farre more then they do, or can. *Nam natura paucis contenta, & sublatâ causâ tollitur effectus* : Nature is content with small things, and the cause removed the accidents or effects cease. I wish rather a Surgeon should heale gently, yea though hee should hazard the breaking out againe of the grieffe, which will not easily be if he rationally follow the precedent methode, rather then by keeping the grieffe open too long giue occasion of deformitie, lameness, losse of limes, fistulaes or the like, which very many in the height of their great conceited skill procure, which were it but onely the guilt of conscience, if they feared God, they should not dare to doe. These and the like grosse errors, vnexcusable before God and man, haue brought to the Arte a scandall, & a sensible feeling of want vpon many vertuous professours hereof, so that the guilty and vnguiltie are censured both alike by the common sort, and the one smarteth for the others fault. But those which for gaine or otherwise will prolong the health of those that commit their liues, or limmes to their mercy, or approue of it, the Lord pay them

Errors in Surgeons worthy reproofe.

tennefold as much to their shame : and so for this time I conclude concerning Apostumes, onely let mee giue thee this caueat concerning *Precipitate mercurie*, or of any kinde of Turbith minerall, vse them not much neere any bare bones without very great iudgement, for they will blacke the bones, neither vse any of them in any new wounds as is said, for if you doe they are very apt to procure lamenesse, or shrinking of the sinewes. All swift healing in new wounds I esteeme best, yea without any causticke medicines at all if it may bee, which the Artift neede not doubt of where neither bones broken, nor other iust thing of like kinde hindereth the worke. Thus much concerning the generall curing of tumours, to the praise of
G O D.

of

Of the Cure of *Ulcers*, and *Fistulaes*.



OR haſte I haue mixed *Ulcers* and *Fifſtulaes* together, for that they are of affinitie in ſhew and cure: whoſe ſeueral definitions I alſo forbear for want of time, and enter into the Cure at the firſt. Wherefore note as followeth. If you chance

to haue in Cure an Apoſteme, that by the malignity of the humors, or other euill diſpoſition of the body changeth it ſelfe into a rebellious *Ulcer*, *concauous*, *fiſtulaes*, or into any the like height of malignity; or that ſuch an *Ulcer* come to thy hand from an other Artiſt, be not out of hope to cure the ſame. For if nature be not vtterly thy enemy, the member being not pierced through in the ioynt, and ſo the ligaments rotten, and perhaps the ends of the bones alſo, or ſome other apparent token of incurability, proceeding as followeth, thou ſhalt bee able to cure the diſeaſe, by the helpe of God.

Ulcers Cures.

Prognofication.

Firſt therefore entring into due conſideration of the age and ſtrength of the Patient, with other reaſonable reſpects had, giue him a doſe of ℞ ij. or of ℥ j. of *pulvis Arthreticus*, and 3 daies after of *Diaphoreticon* a doſe, viz: grains 8. which he ſhall take whileſt he is yet in bed, and couer him warme, and yet but ordinarily, and it will cauſe him gently to ſweat ſome 2 or 3 houres: then let him wipe himſelf and riſe, and afternoone it will giue him 2 or 3 ſtooles, but very gently. Then the next day or two daies after apply to the *Vlcer* a litle *Aqua benediſta*, that it may come to the bottome and into ech part of the *Vlcer*, namely with a litle linte on the end of a *Probe* wet onely therein, and ſoleaue the linte ſticking in the mouth of the orifice

for two daies, filling the *Esker* with more linte, or till the *Esker* remoue, with also a *Minium* plaster ouer it, this will cause some paine, and produce a strong *Esker*, which being

Second dressing.

fallen, fill the orifice full with dry linte, for the first and second dressing, putting the same very gently in; for it will be exceeding tender. I am of opinion that it is meere idleness to apply any medicine suddainely to prouoke the fall of an *Esker*, as I haue mentioned else-where. For I dare affirme it furthereth nothing good healing: for when the time of nature is come it will fall without thy helpe: thou canst not keepe it on. And I hold it as a hopefull signe of good healing, when the *Esker* is slow in remouing.

Third dressing.

Wherefore the third dressing after the naturall fall of the *Esker*, hauing for two dressings, as is said, vsed onely dry linte, take of the white *Aquilla laxatina* a litle, I meane 3 or 4 graines, and mix with it *Plantaine* or faire water, or an ordinary *Lotion*, onely that it be as a very thin *Vnguent*, and wet well the wound therewith warmed, and fill it with dry linte, and giue the party in to drinke of *Aquilla vita*

Fourth dressing.

4 graines vpon the point of a knife. This will cause him to vomit, and make a strong diuersion of the humors, and then proceede in the cure with drying ordinarie medicines, namely dry linte onely some foure dressings, and some one dressing now and then, with a litle *Aquilla Laxatina* vpon any linte, onely to touch the *Vlcer* within: this causeth no paine at all, or a litle some dressings. Also I apply *Basilicon*, either alone warme, or sometimes againe with a litle of the powder of *Aquilla Laxatina* strewed thereon. And when I vse this dressing, I let the dressing remaine for 24 houres at the least, and then to my dry linte againe: and perhaps if I perceiue the *Vlcer* or *Fistula* to haue any other secret concauities, and that it bee not fully touched in the bottome, I vse once more my *Aqua benedicta*, and giue a second vomit of *Aquilla vita*.

*Other rules for
the finishing of
the Cure.*

Also I obserue it for good in the conclusion of ech such cure, to giue such a vomit, where the strength of the Patient will beare it. Furthermore I prescribe the Pati-

ent

ent a strict drying dyet, where I see good cause, not otherwise. But remember this principall rule, that what day he either taketh vomiting, purging, or sweating medicine, that the same day he forbear his dyet drinke. Further beware that you prescribe not ouer slender dyet, to him which is already pinched with weake dyet, either at Sea or Land: or whose dyet is of bad nourishment, as too often times it happeneth amongst poore Seafaring men in long voyages. Thus vsing this afore-prescribed medicine iudiciously, you may cure any pockie *Fistula*, or inveterated *Vlcer* whatsoeuer, if they by Art are curable. And for any pockie *Vlcer* on the yard, I meane either vpon *glans*, or *preputium*, or twixt both, onely touch it but once with the afore said *Aqua benedicta*, and giue the party one dose of your *Aquilla vite*, and without question you shall cure it afterwards as if it were a greene wound, but remember it will cause *Virga* to tumifie sometimes much, but be not afraid, for by the vse of *Lotions* mixed with *Plantane* or faire water dayly warme, and cast it in twixt *Glans* and *Preputium*, it will soone amend. It cureth also any warts of the yard by onely touching them, and that if they be touched but very gently: for it is a strong medicine, and procureth some paine, but not in warts, yet honest it is and sure, for it will not faile: and if once you acquaint your selues with the parts thereof, you will neuer afterward vse *Trossis of minium* nor *Mercury sublimat* againe, and yet let mee speake my Conscience, both *Trossis of minium* and *Mercury sublimat* are worthy Medicines, their whole force and healing vertue being indeed onely the quicke-siluer and spirits of salt, and no other thing, whose companion was neuer found out for healing and killing. I haue often cured desperate *Vlcers*, yea and *Fistulaes* with *Trossis of Minium*. as also sometimes with onely a Tent made of *Mercury sublimat*, and put into the orifice. And how excellent it is inwardly giuen being truly prepared, I will for this time forbear to speake, till I write of the preparation of such medicines, as I haue here divulged vnder

strange:

Aquilla laxatiua
Aquilla vite
 4: *Aqua benedicta*
 woodall calls steu
 nandy :

strange names. Thus much of *Ulcers* and *Fistulaes* to God his glory, and the helpe of the weaker sort of young *Practitioners*.

The Cure of Fractures.



THE first Intention in the Cure of Fractures is performed by restoring the bones disioyned, and taking away any loose peeces or fragments of bones if any be.

The second intention is performed by keeping the parts together, namely the ends of the bones formerly displaced and fractured by violence.

The third intention to bee done, is the curing of the wounds or contusions incident to fractured bones.

The fourth, to preuent or remoue the accidents.

The first part of this worke, namely the restoring or rather bringing to their places, the fractured ends of the bones is performed by extention, and a skilfull and ready hand touching the extention, let it be done *paulatim*, by little and little, as the tearme is, with euen hands, not by iumps or on the sodaine, and yet with as much force as is requisite, namely till the Artift standing by with his hands vpon the greese, perceiue hee is able to set the ends of the bones into their place; which done, it is then required that they be kept so.

The second curatiue intention of fractures, is performed by keeping the ends of their boanes placed in their right forme and place.

This part is cheefely done by good ligature, wherein I am willing to impart to young Artists my practise in curing

ring fractures in the thighes and legges, and vnderstand I vse no rowlers at all, but clowts, splints armed and tape, my reason is, it is a great disease and disquiet to my patient, yea though I haue two assistants to holde the member, to come so oft about the member as to rowle it, and endangereth much the disioynting of the boanes againe, and causeth paine.

And it is manifest that in simple fractures, the placing of the boanes and keeping them so, is the most worke of the cure, and nothing cureth a fractured boane so much as rest: wherefore when a bone is newly placed, and shall be troubled much with lifting and rowling, it cannot but hinder vnition, and procure some accidents offensiue, my forme of ligatures in fractures is to haue next the member one foure double clowt in length, I meane aboue and below the fracture, so long that the ends of the splints I intend to vse, may haue a resting place on the clowt. And if I intend to cure the patient by a Lixiuim or otherwise, I apply it on this sayd clowt, the medicine appoynting it to be next to thee greese, and haue another like great cloth to come ouer that againe vnder the splints, which being close and smooth brought about the member, I then put vnder the first splint of a good bredth and length well armed with towe, and vnder that I lay foure or fise strong tapes, then I time one of the said tapes gently, and thrust all the rest of the splints vnder the same tape, namely, so many as may compasse the fractured member, lying close, but with some small distance, that they touch not one another, then I tie the rest of the tapes, drawing them close, till the party sensibly feele them to beare in all places, the splints I appoynt commonly so long as the member can beare without galling or troubling the next ioynt, these things so done, if either the legge or thigh be fractured, I appoynt him iunckes, as some terme them, namely, bents rowled vp in canuasse to come about his knee, and downe to the foot, yea though onely the legge be fractured, it is fit these bundles of iunckes bee as thicke and
Y thicker

thicker then the member fractured, for that they may defend it in bed from wrong, and they are gently to bee bound to the member, that they may turne with it if occasion be, to these ~~th~~ ~~o~~ ~~u~~ ~~n~~ ~~k~~ ~~e~~s also a cloth may bee fastened, which may be brought vnder the foot to stay the same vp, to his due position, which is a great ease to the patient, and beleue me, if once you be but perfect in this forme of ligature, you will neuer desire a rowler in the cure of a fracture: I vsed rowlers till I saw the sufficiency of this forme of binding, which now I desire not to change.

The cure.

The third intention is the cure, wherein the inward and outward course of the cure is to be considered of. Touching the regiment of the body: concerning sustenance at sea, the patient neede to haue it no thinner then the Sayers ordinary, and touching medicine let him haue the benefit of nature, that is onely euery day, or the second day, a naturall stoole or an artificiall helpe by suppositories or glisters, if there bee great necessity not otherwise, and if a feuer happen, giue him a Barley water, with a little oyle of Vitrioll therein, and if that helpe not, open a veine on the contrary side, and if you feare putrifaction of humors, giue him a little Diatesferon Trekell or Mithridate, or the like, if he complaine much of the paine, search the cause, namely, see that the ends of the bones lie right, and that the splints gall him not, also that there be no wrinkles in the clouts applyed, and that it bee not too hard or too soft bound, all these things duely considered. The medicines I vse are as followeth, either I vse a restrictiue stuffe, which is as followeth.

*The ingredients
of a restrictiue
the manner of
composing it.*

R. *Bole* ℥iij.

Aluminis.

Thus ana. ℥℞.

Radix Consolida in powder ℥ij.

Lapis Zabulosus ℥℞.

These all made into fine powder, and mixed with the yolkes and whites of two egges together, if they may be had, adding wine vinegar, and mixed as much as will serue

to make this medicine into the forme of a cataplasme, and in want of egges vse water and veneger onely so much as is needefull, also if comfry rootes bee not to bee had or *Thus*; They may bee forborne, you may in their places for neede, though not so very well vse beane-meale, I haue done very well many times, onely with Allum, Bole, Egges, water and vineger, though Beane flower is also very good or wheat flower, and as for the medicine called *Lapis Zabulosus* heere recited it is a medicine found out in the Arch-Duke of Brandenburg his Country, named in the Germane Tongue, *Beine boucke*, which in our language is a broken bone, being in substance like chalke and in forme like a bone, some peeces like ribs, other like fingers, others like legges or armes, bones of nature so growing. This medicine I know to excell many other in healing fractures both outwardly applyed in cataplasmes, and inwardly taken daily the quantity of ʒ. j. in fine powder in wine, beere, or water, the patient fasting for two houres after the taking thereof. In great fractures the Germane Surgions, prescribe this aforesaid medicine daily to be taken for twenty foure dayes, if they see cause so long to vse it: The other forme of application to fractures vied and commendable, as I haue sayd, and from which I am digressed is a good strong Lixiuum made with fresh water & ashes till it be slippery, namely, let the water be made seething hot ere the ashes be put in, adding if they be ready, or may be had in the shippe these hearbes following: *St. Johns wort*, womewood, centaury, rosemary, sage, chamomile & mellilote flowers, or at the least some of them, also you may adde Lupines therto: but howsoeuer though there be no hearbes: adde salt good store when it is cleered, but not before, and then though you haue neither hearbes nor lupines, it will bee of good force, for it is the salt vegetable in the ashes, which is the best healer, the next best is the minerall or sea-salt, wet the clowt rehearsed therein, and wring it out hard, and apply it to smoothe, close and hot about the member binding it so vp, this second

forme is esteemed of most Artists the safer, for auoyding Gangrenes, which fractures are much incident vnto, by reason of great store of contused blood gathered, that can hardly be discuffed on the instant, which thereby causeth obstructions, whereupon followeth inflammation and paine, and consequently a Gangrene, and surely the first is not inferiour to this: for by the meanes of the Allum and the viniger it swageth paine, tempereth well the parts, and yet repelleth and discuffeth the blood gathered, and being once baked to, it fortifieth mightily the member, by sticking close and hard to it, I haue vsed it long without repentance, and the other sometime: but for that it helpeth of it selfe to keepe the member to his straightnesse, I therather vse it.

*Observations
for the cure of
the great bone
of the leg fra-
ctured.*

These things ready, I meane the one or the other form, suppose then the greater fossill or bone of the legge were fractured, make your extention (as is sayd) that both ends of the bones meete together, namely, let one strong man take the one end of the fractured limbe, and another the other end, thy selfe standing free, and let them draw out the member, directly when thou art ready, & not before, neither by iumps, but leasurely and together, likewise if they beare their hands too high or too low in drawing, they cause great paine to the patient, and likewise cause the bone to lie vnapt to thine hand to reduce it. It is knowen when the ends of the bones meete, for that not onely the member is returned to his former beauty again: but also by it much of the paine is eased, for it is a sure rule, if the paine abate not, all is not well: The bone, I say, first well reduced, bring your stufte formerly rehearsed & put it vnder the legge, the parties that extended, not forsaking their holde, and lap it about smooth and close as you can, without wrinkles, lumps or seames, and that the ends may also fouldesmoother one ouer the other, wrapping it double and smooth ouer the shinne bone, the cause why I vse to fouldes it double on the shinne bone, leauing it there to be opened, is that if it chance there be a wound

*How to know
when the ends
of the bones
meete aright.*

it may be dressed the better without vndoing all: but if no wound be, yet it fortifieth the bone the better, by the double-ness thereof being smoth, then lay your next cloth broader and longer then the first, ouer the first, besing wet in water and vineger if there bee cause, and wrung out. Let the second cloth, I say, as also the first, bee longer then the splints, that the ends of the splints may rest thereon, and not on the bare iegge, placing the splints in their order about the legge, till you haue compassed the legge, laying them (as is laid) not too close together, that they ride not one ouer another, neither touch each other, nor come vpon the ioynts, remembering to put all your tapes vnder together, in number it were fit to haue five or six, namely, two on each end, and two for the middlest: Also if there be a wound, you must so order the matter, that you may daily apply to the wound necessary medicines, whereas otherwise if there be no great cause, namely, through much paine or the like, you may well forbear six daies, or tenne daies, prouided that you see the legge bee straight and well laid in an euen position or forme, and that it may lie the safer, it were good to bee prouided with the aforesaid bundles of reedes or bents, as thicke as the legge or thicker, to come from the foote, and one hand breadth ouer the knee, which should be wound and wrapped in canuasse; and bound to each side of the legge artificially with foure long tapes, and at sea you may take for a shift two billets bumbasted with a little Ocum wrapt in an olde peece of a saile. Further in fractures with a wound, if you vse vnctions and liquid things, as oyles; you hazard putrification of the bone and apostumation: heerein also great care must be had, that the legge must be kept stedy, for disquiet therein will bring apostumation, and mortification, and death also, beware likewise of ouer hard binding, for it bringeth astonishment and hazard of a sudder Gangrene and death, it is a generall fault of diuers young Surgeons, for many thinke they haue neuer bound hard enough, and yet too loose is a fault, but easily may bee

amended, and I aduise thee to looke to thy patient often, that his splints gall him not, for that bringeth want of rest, and diuers euill accidents depending thereupon, I speake this of mine owne experience, not to my praise: let him haue no wine except hee be weake, let him once in two daies by Nature and Art haue a stoole, houlding these rules with little trouble, it is not hard for him that will be carefull to cure any fracture, for indeed as is mentioned, the bone restored, rest is the chiefest medicine to cure a fracture, yea it will effect it almost without medicine, the member being onely artificiallie bound, and splinted orderly; the inward medicines for fractures I say need not to be many, onely giue him in beere daily, in wine or water as thy discretion shall mouethee, the mentioned *Lapis Zabulosus* ℥j. for tenne or fourteene daies if you haue it: sometimes if need so require, a lenitiue glister may bee giuen: Also the best locall medicine to wounds with fractures in my opinion is good *Bazillicum* or *Arceum Linament* being warme applied thereto sometimes as you see cause; Also you may vse an Abstersiue or Corroding medicine, as *Allumen combustum: Egyptiacum, Vng. mixtum*, or the like: but in these things reason must instruct the Artift more then precepts, but beware of the ouer-vse of sharpe medicines neere the bone, for thereby often a bone is made foule, which before was cleere, this error is too frequent, both in young, yea and many olde Surgions also, who apply sharpe medicines often without true iudgement, not onely in fractures, but also otherwise, and as for simple fractures I haue cured them often with onely a seare-cloth made of waxe ℥iij rosin and sheepes suet, of each ℥j. dipping a course canvas therein in forme of a sparrowdrope, and so haue wrapped it warm and close about the limme, that it might reach at the least three fingers aboue, and as much below the fracture, with apr ligature, as I haue recited in the manner of the application of the Cataplasme: This in fractures of the armes is as good as any, and from the first to the last this seare-cloth

An Enema.


A speciall Caution.

cloth may be vsed. Remember also in any fracture that if eyther by the galling of the splints or heate, or other distemperature of any medicine or itching humour excoriation or heate appeare; that you apply next the greese for one dressing *Ung. Tripharmacon* (spred vpon paper, and your other vsuall medicine thereon, and it will become well with one onely dressing, being taken ere it grow too farre.

*A necessary rule
for heat or exco-
riatiō of the mem-
ber fractured.*

Thus much concerning fractures, not writ from any mans authority, but truly and plainely as I haue done the like in my practise, for which let God be praised, *Amen.*

Concerning the Cure of *Dislocations.*

 Although I haue seene diuers skilfull men performe good workes in Dislocations, and read somewhat, and for many yeeres practised my selfe, yet know it not in this part of Chyrurgerie by words to describe ought to the purpose, which might serue at all assayes, or vpon all occasions for the helpe of young men, for as much as so many vnexpected obseruations and strange occurrents happen in and by Dislocations, as would aske much time to explaine or but to touch, all yet in a word or two, I hold it not vnfit to aduise them somewhat concerning Luxions or Dislocations. First therefore it is a generall rule that you must vse extention almost to euery Dislocation, especially in the shoulder, in the huckle bone, in the knee, and in the ankle, for I may boldly say, where the Artist findeth a member longer then his due forme, hee shall hardly doe good on it, namely if it proceed by euill disposition of nature, or that by the abundance

dance of vicious or viscus humors it haue extended it selfe. Extention is therefore to be carefully made, I meane as I haue said in the cure of fractures, not on the sodaine, nor too forcible, but yet with strong and stedy hands, for in the extention is exceeding great respect to be taken, and it is the principall worke, yea and much Charity is to bee had and vsed therein, for too farre extent weaketh much, if not ouerthroweth the true vse of the member, euen so too little extended, produceth not the effect intended, I meane it serueth not to restore the bone dislocated, euen so the extendors raising their hands too high, or putting them downe too low, hinder the comming of the bone into his due place, and cause greater paine to the party: furthermore it were good when the Artist taketh view of a member dislocated, that the other side also were vncovered, that thereby the true forme and situation of the diseased limme, being well regarded and compared together with the whole ioynt, the better iudgement, and truer iudication might be taken: I meane if one shoulder or elbow be out of ioynt, let the Artist make bare the other side also, for that there is often great difference in the naturall proportion or scituation of mens Ioynts, hauing therefore first viewed, and then also sufficiently extended, and the forme of the other side also is as saide, seene and kept in remembrance: then seeke to reduce or place the bone by those meanes, which in thy owne reason seeme fittest considering and well weighing the naturall forme, and true scituation of the dislocated bone, as is said, which in truth is vnpossible in my opinion by letters to explanet: this done, for the most part, yea and in very great dislocations, the worke thou maist account is done, and the feare at an end.

My selfe haue set diuers strong mens bones, I meane the shoulder bones chiefly, which haue done labour the same day, neuerthelesse I denie not but it is good and very necessary to apply to the place things discussing, anodyne, and mollificatine as reason shall induce the Artist

vnto

*Certaine rules
for the cure of
dislocations.*

vnto, you may therefore annoint the place with oyle of Roses, Camomill, Dill, or Earth-wormes as you shall see fittest, and apply thereon a Plaster of *Minium diacalsiteos*, *Paracelsus* plaster or thelike, and so rowle and binde vp the member artificially as shall be most fit, and let it hauereft: if thou feare further accidents thou maist also giue the partie some laxatiue. The bone I haue said is neuer truely restored, if the paine continue. Againe if there be a great tumour in the place dislocated, so that thou canst not therefore well reduce the bone, then maist thou lay the party to rest, and the member also to as good rest as thou canst, and by things mollifying, and discussing seeke to allwage the tumor, in which case a good *Lixiua* described in the cure of fractures were good to foment it withall, ora good Cataplasme made of Oate meale and linseeds boiled in beere or water, with a little oyle of Elders would doe very well, but take this for a rule that if thou be called to any dislocation where a tumour is, if it be but a tumour of one, or two, or three daies gathering, attempt thy best to reduce the bone notwithstanding the tumour: for if by extention and paines taken thou canst get the bone into his place, thou needest not to feare the tumor, for it wil quickly be gone: whereas on the other side if by thy other applications thou canst not in reasonable time dissolue the tumor, a callow or strange substance may be fixed in the place that thou shalt neuer be able to dissolue, also the ligaments and heads of the Musckles will be growne hard and shrunke, and thou maist feare a lamenes and withering will follow to that member: wherefore with a carefull consideration seeke to reduce any bone, the sooner the better.

The sooner extention is wrought the better.

I vse an instrument in dislocations which I learned the practise of in *Polonia* whilst I liued there, which I call by the name of a Commander, for that rightly placed and vsed it will surely command; and I haue vsed that one selfe same instrument to the shoulder, wrist, knuckel bone, knee, and ankell with good successe. I may truely say I

haue set with it about 100 ioynts at times, and neuer once repented mee of the vse thereof: and to shew thee how I vse it marke a little my words, for I must be brieue: If I see iust cause of the vse thereof and that with my owne hands and some others to helpe me I cannot without much paine to my Patient bring the dislocated bone to his seat, if this dislocation I say be in his shoulder I place the butten of the instrument being somewhat flatte on both sides, not round, iust into the arm-pit, or hollow place, I meane vnder the vpper round end of the adiutory boane, or betwixt the said bone and the body, and directly vnder the os humeralis or os Scapula as close as I can, the end of the recited button being well armed with tow bound on with a cloute: which done I put on the Iron ginne which belongeth thereto at the lower end of the Commander, where are certaine holes with one Iron pinne for diuersities of lengths of limes to bee extended, this ginne hauing a resting place for to stay it to the pinne recited, and an other for to take hold of the end of a soft towell to be tied about the wrest of the dislocated arme, which wrist bound about, and the lower part of the towell, or some strong lether, band, or coard, fastned to the said towell, also fastned to the vpper part or teeth of the Iron instrument, let then some garter also bee gently tied about the party his arme, betwixt the elbow and the wrist to stay the arme to the instrument. It were also good that the instrument, I meane the wooden Commander, were iust of height with the party, I meane from the place where it is to be placed to the ground; but because that cannot alwaies be expected, let the partie diseased stand in that order, or so vnder set the instrument that it may fall out so: and vnderstand further that the party for any bone of the arme dislocated must be standing whilst it is placing. And for the thigh, knee, or ankell lying. Hauing placed, tied, and fastned the parts together, as is said, let one for thee stoope to turne the extending instrument, and turne it gently till all bee reasonable stiffe, the Commander standing

ding vpright close by the Patient his legge : and let some one strong man stand on the other side of the Patient, with his armes about the Patient his necke to keepe him vpright, to the busines: these things ordered as is said, with thy owne hands seeke to reduce the bone : I haue often found when I haue extended but to a iust length, the bone hath of it selfe returned to his place, thou wilt wonder at the facility thereof, if thou proceede orderly, I nor no man else can teach thee by written words halfe so well, as by practise, which once vsing it, thou wilt finde it out.

And when thou wilt vse it to the huckell bone, note the button on the top must be taken off, and a cushion bound on the place thereof; the party must also be so placed lying that his huckell bone, thigh and legge must hange ouer the beddes feete free from the bedde, or so laid on a table that all those parts may bee free, and his legge below the knee must be gently bound to the Commander, as is said of the arme : In all this worke neat ligature, true extenti- on & a carefull industrious hand must performe the bu- sines, and practise must be the meane, for my selfe I haue no time to amplifie further, this which is said is pra-

ctise, for the which if thou finde profit
by it, giue God the
praise.

Of Dismembring or Amputation.



Amputation or Dismembring is the most lamenta- ble part of chirurgery, it were therefore the ho- nour of a Surgeon neuer to vse dismembring at all if it were possible for him to heale all hee vndertooke; but necessitie hath no law : the Patient will

declare in his naturall desire to liue, the comfort that hee hath by it. Since therefore it is of necessary vse, let the discrete Surgeon be euer prepared for it, and to that end let the Dismembring-saw be alwaies in a readinesse, well filed, and cleane kept in oyle clouts to saue it from rust, let it also haue two blades wel filed ere you put it into your chest, for that one tooth in a saw may breake. If you be constrained to vse your Saw, let first your Patient be well informed of the eminent danger of death by the vse thereof; prescribe him no certainerie of life, and let the worke be done with his owne free will, and request; and not otherwise. Let him prepare his soule as a ready sacrifice to the Lord by earnest praiers, crauing mercie and helpe vnfainedly: and forget thou not also thy dutie in that kinde, to craue mercie and help from the Almighty, and that heartily. For it is no small presumption to Dismember the Image of God. This done, haue thy other instruments ready, namely, a good Dismembring-knife, a small incision-knife, two great square stitching needles armed with very strong thred waxed, which some vse, but may also be forborn, & one needle also and thred of the ordinarie sort to sew rowlers: likewise haue ready long clouts, lesser clouts plegents of tow greater & smaller, dorisels, and buttons of tow, three broad strong rowlers or foure, of foure yards long each, with also a forme conuenient for to place the Patient on, with a large boule and some ashes therein to receiue the bloud, let it be set vnder the end of the forme, then wet your clouts, I meane your beds or bouldsters in water & vineger, and wring them out hard, which done, make ready your medicine, I meane your restrictive pouders of both sorts: haue also ready strong wine vineger, or other good vineger, and the white and yolke of an egge together mixt if it may well be had, or else vineger only, spread your plegents ready with the restrictive stuffe or cataplasme following, haue ready the stronger restrictive powder mentioned, namely, your ordinarie restrictive $\text{ʒ} \text{ j.}$ and of burn'd allome $\text{ʒ} \text{ j.}$ Vitrioll burn'd and

*Certaine rules
before the worke
to be practised of
the Patient.*

*Other rules
which concerne
the Surgeon his
preparation for
the worke.*

of Precipitate of each ʒjss . all these mixed together: This mixture I haue termed the strong restrictiue powder, for that it forcibly restraineth Fluxes, and maketh an Eskar: haue ready also one plegant made no bigger then the end of the member; let it be spread with this recited strong Restrictiue, mixed with an egge and a little vineger, which done, strew it thicke with some of the said stronger powder mentioned, hauing another plegant ready, broder then the former spread with the ordinary restrictiue mentioned and mixed with an egge as the former: also, take of the bottoms of towne some foure or fiue, wet them in the strong restrictiue to be laid on the great ends of the Vaines and Arteries when they are absized: This done and ready, place the patient on the mentioned forme with one strong man set behind him, and another to stand before him, bestriding his thigh close to his body, compassing strongly with both his hands the member which is to be taken off, and holding it exceeding fast some two fingers about the place where you intend to take it away, and let another hold vp his foote. It were not amisse also to haue ready a swines bladder which hath beene somewhat wette and dried off againe: which after the stuffes the first bed and first long rowler, is to be put ouer the member and to rowle it againe. All these necessaries as is said made ready to the worke, in the name of the Almighty, the sharpe instruments being as neere as you can hidden from the eyes of the patient the two ministers or helpers also being ready, and hauing hold on the member one aboue, another below, & also one sitting behind, as is saide on whom the patient may leane backward, and rest on: then take your dismembring knife, and with a stedy hand and good speed, cut off flesh, sinewes and all, to the bone round about the member, which done, take a smaller incision knife and diuide the panicle called the *periosteum*, from the bone, it is a tough thin skinne, couering all the bones of the body, also thrust your said incision knife betwixt your fossels or bones, cutting away whatsoever is

to be found there with like expedition: the party that holdeth the vpper part of the legge with all his strength, gripping the member together to keepe in the spirits & bloud: It were also very good that the saide party holding the member, the flesh and sinewes being cut asunder, should immediately draw or strip vpward the flesh so much as he could, keeping his hold, that thereby the Sawe may come so much the neerer, which would occasion a quicker and better healing, the flesh being thereby made longer then the end of the bone: then if you approue of that course of stitching, as some good men doe, take the 2. strong square needle and threds mentioned, & presently after the member is taken away, stitche the skin through on the one side, and iust ouer on the other side, and with the other needle doe likewise (as it were crosse ouer the member the other way, and draw the said threds so close as you thinke conuenient, the better to stop and choake the great Veynes and Arteries, then tye them fast, and presently put buttons to the heads of the veines and Arteries, then apply the restrictiue Plegents together, the lesser spred with the strong restrictiue lying on the broder, spred with the ordinary stufte: this broder plegent must come at the least three fingers ouer the stumpe, and a linnen bed with them presently following, laying a flat hand close on the end of the stumpe, and holding it so till an other standing by draw vp the said plegents with the said bed smooth and close: then let a third man go on with the rowling, till the first rowler be spent, then if you will, draw on a swines bladder, which is no euill course, for being once drie, you need not feare any fluxe of bloud, my selfe haue vied it and found it good, but your rowling must be very Artificiall in such a case, or all will not serue, for it exceedeth all medicines. And there is a second great care to be had in the houlder that he hold well; also remember euer to keepe a hand to the end of the stump, thrusting vp the medicines close, and keeping them so, excepting euer as the rowler passeth by to make way warily for it, and stay it againe, and euer
where

*The vse of the
Sawe.*

*The manner of
stitching the
stumpe.*

where you see the blood springing out, there lay a slender dorrell of tow, and rowle ouer it againe, continuing rowling till the blood appeare no more: The first dressing being ended, lay the party to bed with the stumpe high, and a pillow vnder it, appoint him a slender diet, namely no flesh: let him haue a comfortable Caudle for the first, if you see him weak; and afterwards Broths and Pannadons and light things, and in small quantity. It shall not bee amisse to deferre the second dressing at the least foure daies, or longer, onely visit the patient daily and ease or take away some one rowler, as you shall see cause: Moreouer, in dismembring the legge, you are to vnderstand that though the foote onely be corrupted, it is best to take off the legge some foure inches below the lower end of the rotule, or round bone of the knee, the paine is all one, and it is most profitable to the patient, for a long stumpe were but troublesome. This worke of dismembring is best to be done in the morning, doe it not willingly the signe being in the place, neither the day of the full moone, neuer rake off any member in the ioynt: yet *Petrus Pigerius* a late learned writer affirmeth it safe & good of his owne practise: and *Master Richard Wood* a worthy Father in Chirurgery confesseth the same in small ioynts *Caution* to be good, but not in the knee. Note also it is conuenient if the occasion of dismembring grow by reason of a Grangrene the body of the party and spirits not wasted before with long sicknes, to let go some reasonable quantity of blood in dismembring, because it is supposed to be vamous, but in a spent weak body, who hath had a long pining disease, preferue his blood and spirits as carefull as if they were thine owne, and yet remembering this one rule, which all the London Hospitall Surgeons holde, there is more hope in a weake spent body, then in a full body: note further, that if the legge be taken off about the knee, there is the more danger, also there is great care to be had to the great veine and artery, namely that thou take them vp, and pierce them through, and make strong ligature about

bout them, which must be speedily done, if thou canst do it: but at first I feare thou wilt misse, yet be not discouraged, not stand too long to seeke them, but goe on with like hope: Also if the occasion of dismembring proceede of a Gangrene, by reason of an inward cause, it were requisite to take the member off foure fingers about the Gangrene at the least, if the member will beare it, and let the patient haue some cordiall potion: furthermore in dismembring, where there bee two bones, as namely in the legge, it is not amisse to set the saw first on the outward part of the legge, that both the bones might be cut at once, for the lesse thou shalt shake the member, the better and the more ease to the patient: moreouer concerning the second dressing, M^r. *Galle* teacheth this vnguent following. if occasion be, as a good remedy to swage paine and cause the skarre to fall, but for my part, except paine did cause mee, I should neuer respect the hasting of the esker to fall, for I am of opinion, as I haue sayd in other places, that it is friuolous to hasten the fall of any esker whatsoeuer, which esker was forced by causticke medicines, and yet I deny not this or the like vnguent may be found to bee of good vse; to swage paine, therefore I haue set it downe, and it is as followeth, *R. Terebinthine* ℥ij *Butyri recentis* ℥iij. *Cera* ℥i℥. *Vng. Populeon* lib.℥. melt these together and it is made, then being warmed, dip plegents therin, & apply them, but in want of this vnguent a good digestiue of *Terebinthine* and the yolke of an egge is as good, *Emplastrum de minio* mollified with a litle oyle of roses, *Vng. Basilicum* or *Arceus* Linament are likewise good remedies, the rest of the cure differeth little from the ordinary cure of vlcers, onely a great care must be had that all your dressings be warme, and keepe the colde from the end of the stump as much as you can, and cheefely from the end of the bones, to which purpose warme oyle of roses daily applied on the ends thereof, will do well, further to foment it with a good *Lixinium*, wherein is strong wine, is good after some foureteene daies, sometimes also it will doe

*The composition
M. Gales Vn-
guent, and good
to vse it.*

doe well to make one dressing with *Aqua vita*, wherein a stupe hot wrung out of the same, may be warme applyed to the greese, and then warme clothes and conuenient rowlings, and sometimes also one dressing with dry lint, or of soft tow is likewise good, and sometimes *unguentum mixtum*, viz. *Basillicum* & *Egyptiacum ana. partes equal.*

The defensatiue cataplasme or stufte often mentioned, is made of the ordinary restrictiue powder prescribed in the chest, mixed with the white of an egge and wine vinegar: the strongest restrictiue of all is already set downe, but in ordinary fluxes in wounds Bole may serue very well. Thus much for this time touching dismembriug, being according to mine owne practise.

*The composition
of the cataplasme.*



Of the Scuruy called in Latine Scorbutum.

The Preface.



His lamentable disease, which hath so long and so Maaners most fiercely assailed Saylers and sea-men of all sorts subiect to the more then Land-men. It is strange in so many Scuruy. ages past, that no one Surgeon of our country men, hath out of his experience taken in hand sincerely to set downe to posterities, the true causes, signes and cure thereof, neither left any instructions, caueats or experiences for the preuention or cure of the same, yet it may bee some may say the cure thereof is common, and wee haue in our owne countrey heere many excellent remedies generally knowne, as namely Scuruy grasse, horse reddish rootes, Nasturtia Aquatica, Worme-wood, Sorrell, and many other good meanes, the truth

is wee haue so, but marke how farre they extend only to the cure of those which liue at home, or else it may bee sayd, they also helpe some sea men returned from farre, who by the onely naturall disposition of the fresh aire & amendment of diet, nature her selfe in effect doth the cure without other helps, as daily it is seen.

This thing therefore being so, what should I spend my time in teaching that method, or those medicines to the Surgeons Mate, which will not bee had at sea, neither if they could bee had, will suffice for the cure thereof, where the disease raigneth fiercely.

This Treatise
most concerneth
Sea men.

Having therefore very small time, I must constraime my selfe to goe breesely to the businesse in hand, namely to enforme the Surgeons mate how hee should demean himselfe to comfort his patients at sea in that most dangerous disease, neither will I heere strine to giue the curious Reader other content then this, that if hee like it not, let him amend it himselfe, which I should heartily reioyce to see any good man doe, knowing mine owne weaknesse. A learned Treatise befits not my pen, and to declare those good medicines, which cannot bee had at Sea, is but time lost.



What the disease called the Scuruy is.

Definition of the
Scuruy, and the
nature thereof.

THE Scuruy is a disease of the spleene, whereby it is sometimes wholly stopped, sometimes onely distempred, sometimes also appearing with hard scyrros, swellings, beginning and shewing themselues in diuers parts of the body, but more particularly on the thighes and legges, causing them to seeme of a leady colour, the sharpnesse of which infectious humor oft offendeth the mouth and gummes of the diseased, and causeth the flesh thereof to rot and stinke.

The names of the disease.

THe Scuruy called of some *Cachexia vniuersalis*, of other *Sceletyrbe*, & of some *Stomacacen*, it is a chronickall disease, not simple but compound of many other diseases. *The diuers appellations thereof.*

The causes of the disease.

First the disease comes, as is sayd, by obstructions of the spleene, and by the thicknesse of the humour, not the multitude.

Some iudicious writers doe affirme this sicknesse to come by the multitude of melancholike humors gathered in *Vena Porta*, by which, it is sayd, the milt doth draw vnto it melancholly humours, and so transporteth it from the milt into the ventricle.

But truely the causes of this disease are so infinite and vnsearchable, as they farre passe my capacity to search them all out, sometimes wee finde this disease proceedeth to sea men onely, through long being at sea without touch of land, as it is seene in East India voyages, our men haue it betwixt *England*, and the *Cape de bon sperance*, as they terme it, & at their comming on land there they presently grow strong againe, & are by the very fresh ayre and fresh food cured without much other helpe. *Aire and fresh food helpeth well this disease in Sea-men.* And likewise twixt the *Cape* and the *Indies*, they are touched with it againe, and as aforesayd the fresh aire of that land, the next they come on and good diet together, cureth them with small physickall helps, and the same againe home-ward bound. The cheefe cause whereof is the contiuance of salt diet, either fish or flesh, as porke and the like, which is not to be auoyded at sea, as I suppose by the wit of man, another cause is want of sufficient nourishing food, and of sweete water, and also for want of *Aqua vite*, wine, beere, or other good water to comfort and warme their stomackes, which by contrary windes men are too much incident vnto in

long voiajes howsoeuer the Marchants are carefull, prudent, and bountifull in that point.

An other cause of this disease to the ordinarie sort of poore men, is want of fresh apparell to shift them with, which indeed amongst poore Sailers, especially a sort of them that are carelesse and lazie of disposition is too frequent, partly also by the not keeping their apparell sweete and dry, and the not clensing and keeping their Cabins sweete, this also ingendreth and increaseth the infection. Some charge Bisket as a cause of the Scuruie, but I am not of their opinion: Some say inordinate watchings are cause thereof: Some say extreame labour wanting due nourishment: Some also affirme cares and griefto be some cause thereof, others affirme the very heate of the aire, resoluing the spirits and vapors, and ingrossing the thicke humours, causeth the Scuruy; but what shall I amplifie further, for it is also true that they which haue all the helps which can be had for mony, and take as much care as men can deuise are euen by the euill disposition of the aire, and the course of nature, strooke with the Scuruie, yea and die thereof at sea and land both: yet this giueth no warrant to the Surgeon, or his Mate to leaue their duties vnperformed, for the blouds of those men which either by their wilfulnesse or slothfulnesse perish vnder their charge will surely be required at their hands.

But it is plain that this griefto is a lasie foule disease with obstructions of the liuer, or spleene, or of both; as also it appeareth that the head is much diseased, and that there is great obstructions in the braine, for that the eies not onely looke euill coulored, but also the gummes putrifie, and the teeth grow loose, and all the sinowie parts of the body beare their part in the disease, for the shrinking and withering of the sinowes with the great paines the party hath declareth no lesse.

Of the Scuruie or Scorbutum

• *the signes.*

THe signes of the Scuruie are many, as namely, a generall lazinesse and euill disposition of all the faculties and parts of the body, sauing the stomake and the appetite which oftentimes is greater then ordinarie with them along time.

A discouloring of the skinne as if it were fouler then ordinarie, with spots darker coulered then the rest, and sometimes also darkish blew spots.

A feuer at sea commonly ends in the Scuruie, wherfore by the way beware of too large purging, or phlebotomie, which increase oft the grieffe, and make it incurable: I speake this because I haue noted there is a fault in young Surgeons of forwardnesse in taking too much bloud at Sea.

Also itching or aking of the limmes are signes of the grieffe.

Sometimes the legges falling away, and drying the calues of the legges growing hard and drie, as also immoderate swellings of the legges: also the legges and thighes discoulered into frekells, or spots of a durry browne sad couller much like the couler of a gangrenated or mortified member.

Stinking of the breath.

Great obstructions of the liuer, or spleene, or both, and in the exercising of their bodies their limmes, and their spirit failing them.

Shortnesse and difficultie of breathing, especially when they mooue themselues, but lying still finde little grieffe or paine.

Their eies of a leady colour, or like darke violets.

Great swellings in the face, legges, and ouer all the body; paleness, or a foule pale couler in the face. Swellings of the gummes, rottensse of the same, with the isshewing of much filthy bloud and other stinking corruption thence, loosensse of the teeth: Also some are troubled with an extreame costiuensse that for 14 daies together they go not to stoole once, wherefore the Surgeon is constrained with an instrument to rake out the excrements to auoide death, after which extreame costiuensse often followeth a great flux of bloud, and a painefull: also many haue stoppings of the vrine, or at the least making lesse water in two daies then the party drinketh in one day.

A coldnesse and stifnesse of the sinowy parts, chiefly of the legges.

Some also haue their muskells, yea and sinowes of their thighes, armes, and legges so wasted away that there seemeth to be left only the skinne couering the bones.

*Certaine signes
of the Scuruie by
the dead opened &
discovered.*

Also it is manifest that diuers of those which haue been opened after death, haue had their liuers vtterly rotted.

Others haue had their liuers swolne to an exceeding greatnesse, some the spleene extreamely swolne, others haue bene full of water, others their lungs putrified and stunke whilst they haue liued, these and diuers other signes too many all to be mentioned here, doe afflict poore seamen, which often are past mans helpe, in such place and time as they happen, the cure whereof resteth only in the hands of the Almighty. And yet to any man of iudgement it may seeme a wonder how a poore miserable man, comming on land from a long voiage euen at the point of death, namely, swolne sometimes to an vnreasonable greatnesse not able to lift a legge ouer a straw, nor scarce to breath by reason of strong obstruction, yet in a few daies shall receiue the fulnesse of former health, yea with little or no medicine at all.

The cure of this disease, as a famous writer named *Iohannes Echthius* in a treatise *de scorbuto* affirmeth, consisteth chiefly

chiefly in foure things, namely in opening obstructions, euacuating the offending humors, in altering the property of them, and in comforting and corroborating the parts late diseased.

Iohannes Vicius another famous writer ascribeth the whole cure of the Scurvie to the herbe Spooone worthe. One *Olaus Magnus* a Swedon writer, in his fifteenth booke, and fiftie one Chapter, intreating of this grieft attributeth the whole cure therof to be in *Absinthio* or wormwood, namely, to drinke much of the infulion thereof, and also of the salt of the same: and one chiefe part of the cure of the Scurvie (saith he) consists in good diet, but the sea-men are inioyned to that onely the Ship affordeth, which the better and sounder their prouisions of victualls are, the more their men stand in health; and the contrarie not onely bringeth many diseases, but maketh the diseases which happen very hard to be cured, therefore I may spare labour in writing what broths or herbs serue best where no fresh foode can be gotten: the Surgeon and his Mate must therefore, seeing he is at sea depriued of one principall help in that cure, namely, fresh meat and good drinke, be diligent to call for such comfortable things as are by the great care and bountie of the Marchants prouided for sick men, or those which incline thereunto, whereof in each Shippe is a good proportion both of wine, sugar, spices and other comfortable things, and to see they haue it in due measure: and likewise to complaine to the Gouvernours if they be withheld from the same, or if any man abuse himselfe by misse diet: yea and oftentimes, namely morning and euening to seeke for weake and poore men in their Cabins, or so soone as they are missing at their messes to inquire for them, and to see their Cabins be sweet, and their prouisions according, or to moue and intreat the Master, or Gouvernour of the Shippe for redresse in such cases, for feare of a generall infection. And whereas the first part of this cure is in the opening of obstructions, it is therefore fit in the beginning of the grieft to giue a leni-

Remedies touching the Scurvie.

The Surgeons dutie in this disease at sea.

tive.

tiue glister, then the next day if the party be strong open a veine, but beware, as is said, of taking too much bloud away at once, especially where the liuer is weake or stopped, and wheremen want good nutriment, for many euills ensue thereby, The next day following his bleeding if he can beare it, and if that his disease be with a swelling or fulnesse, giue him a doisse of the pills of Euphorbium or otherwise of pipula rassi, or of Cambogia, and make him some comfortable spoone meate, such as you can make at sea; namely, an oatmeale caudell would not bee a misse of a little beere or wine, with the yolke of an egge, and a little sugar made warme and giuen him to drinke, or any comfortable broath made with currants and other fruite, or spices moderately taken, or with sugar, or as the shippe can afford, a barley water for his ordinary drinke were not amisse, with some few drops of Cinamon water therein, and also some iuice or sirupe of lemons therein, or a few drops of oyle of vitriole and some sugar, and giue him in his drinke by way of infusion, dried wormewood good store for it is very wholesome.

Further the Surgeon and his Mate must not faile to perswade the Gouvernor or Purser in all places where they touch in the Indies and may haue it, to provide themselves of iuice of Oringes, limes, or Lemons, and at *Ban-thame* of Tamarinds: Also sometime though a man bee well, a comfortable caudell made with some wine, spices, sugar, and the yolke of an egge were very good; for these are helps in that case as well to prevent the disease, as also to helpe it when it comes.

And further experience teacheth which I haue oft found true, that where a disease most raineth, euen there God hath appointed the best remedies for the same greefe if it be his will they should be discouered and vsed: and note for substance, the Lemmons, Limes, Tamarinds, Oringes, and other choyce of good helps in the Indies which you shall finde there doe farre exceed any that can be carried thither from England, and yet there is a good quantity of
Juice

*The excellencie
of the Iuice of
Lemons, Limes,
Oringes, and
Tamarinds.*

Iuice of Lemmons sent in each ship out of England by the great care of the Marchants, and intended onely for the releefe of euery poore man in his neede, which is an admirable comfort to poore men in that disease: also I find we haue many good things that heale the Scuruy well at land, but the Sea Surgeon shall doe little good at Sea with them, neyther will they indure. The vse of the iuice of Lemons is a precious medicine and wel tried, being found & good, let it haue the chiefe place for it will deserue it, the vse whereof is: It is to be taken each morning, two or three spoonfuls, and fast after it two houres, and if you adde one spoonefull of *Aquavita* thereto to a cold stomacke, it is the better. Also if you take a little thereof at night it is good to mixe therewith some suger, or to take of the syrup thereof is not amisse. Further note it is good to be put into each purge you giue in that disease. Some Surgeons also giue of this iuice daily to the men in health as a preseruatine, which course is good if they haue store, otherwise it were best to keepe it for neede. I dare not write how good a sauce it is at meat, least the chiefe in the ships waste it in the great Cabins to saue vinegar. In want whereof vse the iuice of Limes, Oringes, or Citrons, or the pulpe of Tamarinds: and in want of all these vse oyle of Vitrioll as many drops as may make a cup of beere, water or rather wine if it may be had, onely a very little as it were sower, to which you may also adde suger if you please, or some sirups, according to your store and the necessity of that disease, for of my experience I can affirme that good oyle of Vitrioll is an especiall good medicine in the cure of the Scuruy, as also in many other greefes, the which in another place is noted. Further a decoction of Branne and therein Almonds ground, adding Cinamon and Rosewater a little, and some Suger were very comfortable now and then to be taken to refresh the stomacke. And as touching the Tamarinds brought from the Indies they are to be eaten of themselues as the substance of them is, namely to eat them as you would prunes, and being made into con-

*The Marchants care for Seamen**Land medicines for the Scuruy bad Sea medicines.**The iuice of Lemmons a good preseruatine.*

serues, eat them as other Conferues on the point of a knife sucking out the substance, and putting forth the stalkes or stoncs thereof, some dissolue them in wine or water, and worke out the substance of them therein, and cast away the rest taking onely that which is pure: one may vse this medicine so oft as ye please without danger or harme, onely if hee feare a fluxe of the belly, or haue a weakenes in the raines, let him not eat too much of the Tamarinds. Also the Electuary *Diatrionpiperion* giuen each morning a little on the point of a knife fasting, and last, namely at the party his going to bed, is a great preferuatiue; for it doth warme and coroborate the stomacke, and preferueth from the Scuruy, and is very comfortable to bee giuen to any one that is diseased with the same, or subiect thereto. And the *Theriaca Diateseron* is yet better, for it hath an especiall vertue in curing that disease. Also *Venice Treakle*, *Mithridate*, and *London Treakle* preferue well from this disease daily taken fasting, and so doth conferue of Roscs and Berberies mixed with a little oyle of Vitriole, and giuen on the point of a knife.

Tamarinds must be vsed sparingly if a fluxe be feared.
Elect. *Diatrionpiperion.*

Greene Ginger is also very good to comfort the stomacke, and so are all sorts of *Myrabolans* Condite, and also all sorts of strong Cordiall waters, but chiefly good *Rosafolis* and good wormwood water, yea and very good *Aquavita* helpeth well, Currants and Reysons of the Sun are likewise very good.

Also all kinds of Spices moderately taken are good, and so is good wine a very good preferuer of the body from this disease, with also the continuance of fresh diet, which is hard to bee gotten at sea, the excessse of which good things is as dangerous.

The principall Laxatiue medicine which I would aduise in this case is pills of *Euphorbium* wherewith the body being swolne and watery, you may at your pleasure make euacuation thereof: these purge also by vrine very well the dosse being ℥ss, or at the most ℥ij. These are the fitter for that disease, because they purge not alone water, but also

also by their great warmth, they comfort and warme the stomacke and intralls.

These I aduise the Surgeons mate to vse, as is said, where the body aboundeth with ouer much cold and crude humidity, but let your dosse alwaies respect the strength of the patient, for any strong purging is not good in the Scuruy: all sodaine and strong euacuations are to be auoided. Also *Aquilla Laxatiue* is a very good purge in this case, namely eight or ten graines thereof taken in a cup of wine. It cureth also all wormes of the body, and killeth them wheresoeuer they be. But if the stomacke onely bee oppressed with the greefe in this disease, I first giue a dose of pills called *Pilule Ruffi*, namely ʒj: you shall finde them to be very good.

A caueat for the dose.

Note further, that if any dose or the whole masse of pills in the Chest, such time as you would administer them be growne too hard, then you may dissolue them with any sirup you haue, or with good honey a very little, namely one onely drop will serue to dissolue one dose at once if the masse prooue too liquid, you may roule it in some of the *Puluis Arthreticus* till it be hard enough. Also the moderate vse of Veriuce, Vineger, or Oximell hath beene found very good in this case.

How to compose them in a fit consistence if they bee ouer-soft.

Furthermore, if you see cause, certaine daies after you haue giuen of any your former Laxatiues, you may giue a sweat to the patient in his bed, namely you may giue him a scruple of *Mithridate*, *Venice Treakle*, or *London Treakle* or *Diatefferon*, and mixe therewith if you haue it eight or ten graines of the *Diaphoretice*, and being but ordinarily couered, he shall sweat sufficiently if he stirre not too much. Also the sweating in moist baths I confesse to be good medicines in this case, though not well to bee performed at Sea for the ordinary men. And whereas one accident dangerous in this disease is extreme Costiuenesse as is mentioned, with also stopping of Vrine: the remedies for the Costiuenes, is first that you attempt to mooue the belly by a lenitiue glister as is said, made rather of a slimy decocti-

To sweat is an other singular remedy.

It canes to procure sweat.

How to make a
glisten in case of
necessity for the
Scuruic.

on or medicine which might leaue no sharpe Astringent or desiccative quality behind it, yea though it purge not much, for the sharp Purgers after their working cause often a more Costiuenes then was before, or by their violence cause a weakenes in the stomacke and intrals, whence followeth a fluxe, wherefore for glisters at Sea in great Costiuenesse, where the Apothecaries shop and Cheap-side is not at hand, make a slimy decoction of *Althea* rootes or Comfery rootes, or in want thereof, of Linseeds & Fenogreeke bruised, of each ℥ss: in want thereof, of Bran ℥ij. to the decoction being strained, adde of *species Hiera Pigra* ℥-ij of salt halfe a spoonfull, of honey as much, of oyle two spoonfulls: all these put together, let the decoction mentioned be so fitted that all may be but one wine pint, and administer it with the Siring, beeing of a iust temper in warmth, but if you intend not to haue it purge much, leaue out the *species hiera pigra*, and it will giue 2, or 3. stooles. You may for an ordinary glisten well also take one quart of the broth from the beefe kettle, adding thereto of linseed ℥ij, *comfry* rootes and March mallow rootes if they may be had, a small quantity of Aniseed and fennell seed, *ana* ℥-ij, boyle these halfe an houre, then adde honey and common oyle of each a spoonfull, & giue one wine pint of this for a glisten: but if you see it worke not but come away without excrement, the former recited will doe well, or make an other stronger, namely *ad colaquintida* ℥ij, in the beginning of the decoction to the aforesaid decoction, provided there be no inflammation in *Longauū*, or *intestinū rectum*, nor any excoriation, which by the patient his complaint is knowne: this decoction being boyled and ready to be administred, you may yet adde of the *species Hiera* ℥2 thereto, or of the *Paluis Arthreticus* ℥j. rather, for it inflameth not, it were best in my opinion to striue in this disease by glisters to giue but one or two stooles at one time, for sharpe glisters offend much. Therefore though I shew what you may doe, yet be well aduised in doing of it. Also of pills of *Euphorbium*, haue a care you giue them

A speciall observation in giuing these aforesaid glisters.

not where there is an inflammation or inward heate in the guts, in such a case, the *Aquilla Laxativa* will be a better medicine, which will both temper the inward heate and help to heale the interalls, and yet wil purge him well, and doth not binde him againe presently, and prouoketh also vrine very well, for *Aquilla Laxativa* will often cause naturall loosenes, certaine daies after the taking thereof, and will purge water very much both by stoole and vrine: and because as is said, extreme costiuenes is great hurt to the body, the Surgeon must by his best care to the patient, seeke to preuent it, both by teaching him to doe his best for his owne health, & to amend the same by obseruing good customes and diet: by customes, namely that hee faile not daily, once a day at the least to offer himselfe to stoole, and doe his best to vrge some excrement to come, and somewhat to force his body thereunto if occasion be, and to keepe one and the same hower daily as neere as hee can: I know by prooffe it helpeth much, and for diet to vse also as neere as he can those things which hee findeth procure an inward slipperinesse and loosenesse in the guts, pease, oatmeale, and rice doe somewhat thereunto, provided they be very well boiled, and the adding currants thereto is the better, and oyle and butter are good helpes, but at land where it may be had, all kindes of fresh diet almost are good in that case, for by the leauing onely Sea diet, the body refresheth it selfe sodainly through benefit of nature and the fresh aire, and easily becommeth naturally loose, and then the difficulty is ended. The eating of Tamarinds is likewise a good thing in that case.

What I haue written here plainly, touching meane and simple glisters; I would not be mistaken, as if I did it out of ignorance or disdain of better medicines, for I were worse then foolish if I would reiect, detract or disswade from the good vse of decoctions of hearbes, feedes, &c. with the additions of Eleſtuaries, Laxatiue Sirupes and the like which I haue in daily vse at home vpon each iust occasion: yet many of the ancient Artists of worthy me-

For heate in the Intestines vse *Aquilla Laxativa*.

A caution.

The third rule ceaseth, the Mariners on shore.

mory which I could rehearse, haue in former ages vsed for glisters only water and salt with oyle, and some others haue added honey, and it is manifest that new milke alone is a good comfortable glister with the yolke of an egge, and a little course sugar added.

And you may also many times saue a labor of giuing a glister by a suppository, which is either to be made of a long peece of Allum scraped smooth, or of a candles end, or of a peece of hard sope, or of honey and salt sodden till it bee so hard that it will breake being colde, which being yet hot may be rowled & made vp of the greatnesse of a finger, & administred: of any of these, I say, you may make a suppository as long and bigge as a finger or lesse, and thrust it vp into *Ano*, & let the party keep this medicine one houre at the least in his body (if he possibly can.) Further note this generall rule concerning Glisters, let a Glister neuer ex-

The quantity of
a glister to be re-
garded.

ceede the quantity of one wine pint, let it rather want one quarter, especially when you giue it to a costiuie body, or a ful body, he shal be much the abler & the willingler to keep it the iust time. Further beware it be not too hot nor too colde, for the guts are tender parts, so hot as pisse new made, or a very little rather warmer is the true temper. But if you perceiue the *Intestinum rectum* or Arse-gut, to be excoriated or inflamed, in such a case vse no salt nor salt broathes, nor strong Laxatiues, as *Euphorbium*, *Agaricum*, *Hiera Pigra*, *Coloquintida*, or the like. If you find the Lon-

The true temper
of the glister to
be administred.

How to deliuer a
glister if the
Longanum bee
stopped.

ganum or Arse-gut to be clung, or hard stopped with excrement, you may put a smal greasie or oily clout on the end of your glister-pipe only ouer the holes therof, when you put it into the body, and thrust it into the head of the pipe then draw backe a little your hand and deliuer in your medicine, and if you see cause, and that it will not easily deliuer, force it somewhat. Also when your medicine is all in, and that you would draw out your instrument againe, doe it quickly, and let the party turne him on his backe, and he shall keepe the medicine in the better. In cases of excoriations or inflammations of the intrailles, in Glisters vse

A glister for in-
flammation and
excoriation in
the guts.

Deere fuet ℥ij. for one glister, and in want thereof, *Axungia ouina vel porcina*, I meane sheep or swines fat, and let the decoction whereof the glister is made, be onely of branne, and without any other addition, and giuenow and then such a glister, I meane once a day, for two or three daies, after you may adde thereto some small astringent medicines, as *Succus Acatie* ℥j. or Gales ℥-ij. or Balustians ℥β. or Myrabolans, ℥-iij. euen as you see cause, for these helpe to heale the guts well.

Of Lotions.

Concerning Lotions to the mouth and throat of the diseased, they must be sharpe and very astringent, I meane them especially which concerne the cure of the gummes in the Scurvie, if the gummes therefore be swolne, that they hang over the teeth, stinke or be putrified, they must be very well lanced or scarified, and after hard rubbed with a linnen or wollen cloth, wrapped about the fore finger and wet in some strong restraining or Stiptick Lotion very hot, as is the ordinarie Lotion of Allum, Honey and Hearbes, adding thereto a double quantitie of Allum, and a little salt peeter, or gun-powder for a neede is good, & if it be not sufficiently strong, make a stronger decoction of coperas in water, adding salt peeter with a little honey, if you haue it, or *Mell Rosarum*, with also a little strong vinegar, you may also put oile of Vitrioll a little thereto, but that it hath one euill qualitie in hurting and softning the teeth, wherefore beware of it, and if you vse it, do but onely touch the gummes with it once and no more, and it will doe much good: and if you please, also *Aqua Fallopij* is good, but because it is made with sublimed Mercurie, it is not without danger, and is also of a loathsome taste and smell, and offendeth the stomacke very much, but I know it to be held by many for a great secret, but as for my selfe for reasons rehearsed, I vse it not but aduise rather that which is strong eyther of the Coperas, Allome, or Salt-peeter,

for

The cure of the gums much swolne, stinking and putrified.

for they hurt not the teeth at all as doth the oyle of Vitrioll, and so doth *Aqua fortis* very much, or you may make a Lotion thus: R̄ Coperas, white, Greene or blew ʒij. water one pound or thereabout, Honey one Spoonfull, boyle these to the consumption of one third or halfe, then take of *Lapis Medicamentosus*, or salt-peeter ʒiſs, and if you haue no honey, take Sugar, or iuice of Licorice, or Licorice boyled therein for to make it pleasant in taste, or without for a need you may vse it, or the *Lapis Medicamentosus* dissolved into faire water, maketh an excellent Lotion for the putrified gums.

Outward remedies for the Scurvy in general.

If swelling grow in any part a Lixiuum is good.
Of what the Lixiuum is made.

Touching good outward remedies for the cure of this greefe, bathes, fomentations, with also good oyles, vnguents, cerotes, cataplasmes, or emplasters, are each necessary in their due times, provided they be of comfortable ingredients, namely those which minister warmth and nourishment to the diseased parts, and open the pores obstructed, all such, I say, are most fit, provided they bee alwaies applyed very warm, and the party belayd and kept warme vpon it. Further if it bee a swolne member, then this following bathe to foment the member, will bee good, namely a *Lixiuum* made of fresh water and ashes, and being onely but reasonable sharpe, (for too sharp of the ashes, will ouer heat, yea & excoriate) this done and cleered, boile some hot hearbes, flowers and seedes fitting therein, such are Camomile, Mellilote, Dill, Wormewood, Balme, Rosemary, Time, Sage, Bay-leaues, Bayberries, Iuniper berries, Anis-seede, Fennell, Coriander, Carraway, Dill seedes, or the the like: these ingredients, or those of them which may be had, and let them be boyled a little therein. and either stupes of woollen or linnen clothes wet therein or put the ingredients into bagges after the decoction is made with them, and the place well fomented therewith, and so laid to sweat with some of the hearbes in the same bagges well wrung out and hot applyed, till the next dressing. But if the disease proceede with stiffenesse and hardnesse of the sinewes, then forbear the
Lixiuum,

Lixiuum, I meane put no ashes thereto, and make the decoction of the mentioned ingredients, boyled in the broath of the beefe-kettle, in wine, beere, or water for a neede, adding some salt, and likewise, if you haue it, Lin-seede oyle, neats-foot oile, sheepes-foot oile, or oile of almonds, oyle of chamomile, Dill or earth-wormes, of Bayes, of Lillies or some one of them.

Also where you can haue it, a good bathe of the blood of beasts, either cowes, horses, asses, goats, or sheeps blood is exceeding good, namely, to put the legges of the patient, yea and his body too, if it may bee, into a tub made fitting, and the blood kept warme, part thereof being still kept hot on the fire, and renew therewith the bath still, as it cooleth with the warme blood, for some reasonable time, this restoreth and comforteth mightily the decayed spirits. Milke of it selfe is also good to be vsed in that kind where it may be had.

A bath of blood very good.

The manner how to bathe in this bath of blood.

A bath of milke.

Of Oyles thereto.

Oyles good to annoynt, which are *Oleum Chamamilla Laurini. Anethi* or *Lumbricorum*, with a little Spike oyle, oyle of Turpentine, oyle of Nutmegs pressed out, oyle of Peeter, oyle of Exitor or oyle of Iuniper, or one of the same mixed with them, or some good *Aquavita*, & to vse strong frication with warme soft hands long continued, helpeth much.

Oyles good outward helps and what they be.

Much and hard frication very beneficiall.

Vnguents.

Good Vnguents to help these greeses, in my opinion, are euery warme and comforting Vnguent in vse in the Surgeons chest, but I haue had especiall triall of an Vnguent, the composition whereof shall be heereafter described, which is named *Contra Scorbutum*, as also of the *Vnguentum Populeon*, I meane the same composition *Valerius Cordus* hath described, for I finde it to bee very good:

What Vnguents are heerein helpfull.

Two principall Vnguents of soveraign vertue against the Scuruy.

but you may well say, how doth hee contradict himselfe, which euen now aduiseeth warming Vnguents, and presently reciterh *Populeon* for one, which is knowen to bee colde, but though I haue haste, let mee I pray thee answer for my selfe in that one poynt, which I know to be a principall *Arcanum* in healing not looked vnto: many a medicine hath a seeming shew to be colde, & yet doth contrary effects, witnesse Quicksiluer, Iuyce of Lemmons, Vitrioll, oyle of Vitrioll, Salt peeter, Allum, Sorrell, and diuers others which I could recite, all which may easily bee prooued, either hot or colde, by their seuerall strong operations and effects which they performe: as for example, to begin with Quicksiluer, it is affirmed to be extreame cold of infinite writers, and his repercussive quality sheweth the same as also in repelling and cooling hot tumors: with also the variety of colde diseases and contractions Podagricall and Chyrurgicall, procured therby to diuers artificers which worke much therewith, as namely to guilders, Foilers of looking-glasses, and the like Trademen, which sheweth the same to be cold. It also sheweth it selfe to bee hot diuersly, as namely in that it is so extreame subtill and penetratiue, so inuisible to enter the body (*per poros cutis*) and being in the body, so volatill and busie, so causticke & corrosiue, so extreame Laxatiue, so diaphoreticke, so diueriticke, so mundificatiue, so incarnatiue and so sigillatiue or siccatizing, as the like medicine by the art or wit of man was neuer found out: iuyce of Lemmons was euer reputed a colde medicine, prescribed and giuen dayly by the Physicians in burning and pestilentiall feouurs, and that with great reason, and good successe euen to this day, and yet to that notable, and colde, and terrible disease of the Scuruy, how excellent hath it been approoued, how then in these two recited medicines holds the old Axiome *Similia conseruantur similibus & contraria contrariorum remedia sunt*? euen as true as *vox populi vox dei*, pepper is hot in the mouth and cold in the mawe; if I would desire truely to coole and temper the boyling

Many medicines in shew that which in effect are not.

What Quicksiluer is in shew and in effect.

The different vertue of the iuyce of lemons.

of the bloud inwardly, which I my selfe would take, yea were it vpon the safegard of my owne life I would take five or sixe drops of good oyle of Vitrioll in a draught of fairewater with a little sugar, a drop or two of Rose-water and as much wine vineger, marke well my words if thou knowest not these medicines they are worth knowing, or ʒj of pepper, salt niter, which is also called *Lapis prunella*, in the like liquor, and for want of the sugar, rose-water, or vineger of it selfe, or with the water only for a neede: I haue often prooued them so true coolers that they haue staid the Hemoragie or bleeding at the nose, the latter whereof shall seldome faile if you by outward meanes proceede rationally by applying to the forehead cold and astringent things, as also to the nape of the neck: also a large spung wet in cold water and applied to his secret parts is good, or let him hold or put his members into a boule of cold water, also binding hard the armes and legges is very good to stay bleeding at the nose; and one of the surest remedies but last to be attempted in Hemoragie or bleeding at the nose, is to open a veine in the arme on the same side. Thus it may plainly appeare that two of the recited medicines are cold: now to proue those two hot, I will not spend many words, call to minde that of Vitrioll and Salt-peeter *Aqua fortis* is made, which by his heate and penetrating force, teareth to peeces and dissolueth the strongest mettalls presently, deuoureth & vnterly destroyeth cloths woollen and linnen, or put but good oyle of Vitrioll into an vlcer, or to the whole skin and tell me halfe an houre after what a cold feur the Patient had: or put fire to crude salt niter alone and marke the conclusion, namely it will prooue it selfe wholly combustible, and therefore hot: as I suppose likewise the herbe Sorrell, it is a cold herbe esteemed at least in the first if not in the second degree, and yet consider well if you seeke quickly to ripen and bring to suppuration an Apostume you shall finde it a most excellent speedy remedie: I conceiue therefore that it is not by his coldnesse it doth that ef-

A singular and approved good medicine to temper the boiling of blood.

To stop bleeding at nose good rules.

What opposite vertues Vitriol, Salt-peter, and aqua fortis haue.

The like in Salt Nitr.

As also like different operation in Sorrell.

fect, for that is not common nor rationally, and therefore to conclude my degression as *Ozmauldus Crollius* a late learned writer saith in his Preface Admonitorie to his booke called *Bazilla Chimica Simplicium: qualitates non semper consideranda sed earum arcana*, The simple and apparant qualities of Medicines are not alwaies alone to be respected, but rather their mysteries or hidden vertues.

Thus much in defence of the temperament of some priuate Medicines working strange and feuerall effects, wherein the mysteries of our God in his diuine prouidence farre do excell whatsoeuer things else, shewing mans wisdom meere foolishnesse, wherefore to him for euermore be praise, Amen.

The warme vnguents are to be vsed where you see apparant neede by reason of the coldnesse of the part, the Populeon wherethere is paine though no manifest signe of a hot disease appeare, and doubtlesse it will worke good effect to your comfort, yea though you thinke the disease be not cold, and therefore neede a more warming Medicine, *Unguentum Dialthea* is one of the best vnguents, and *Martiatum* is another, *Oleum laurini* is also good, and if you list to adde some more califying oyles, take of oyle of Speeke, of Terbinthine, or Petroleum, but good warme application and strong frication is the meane, and warme keeping. Of medicines to be applied to the Spleene, Liuer, or stomake outwardly, the vnguent *pectorale* described is very good warme to annoint those parts, whose description with the rest you shall finde, and to lay also ouer the whole part agriued the *Emplastrum mellilote pro splene*, whose description is expressed in the Dispensatory, for want of which Plaster *Emplastrum cumini* is good. Also the well annointing with oyle of Nutmegges, or Mace adding a few drops of oyle of Cloues *Chymicall* doth much comfort, keeping the griued part extraordinary warme.

A Saying of
Oswaldus Cro-
lius.

Gods prouidence
to be obserued in
Phisickes opera-
tion.

Where the vngu-
ents are to be
applied.

What outward
medicines the
liuer and sto-
make require.

Of Ulcers in those that haue the Scuruie.

THe Ulcers which happen to them which haue this disease are many waies different from the generall formes and differences of ordinary Ulcers in bodies not touched with this disease, all which I haue here no time to amplify. But because this disease hath two generall and principall differences of appearance, namely some men deceas'd with the Scuruie are swollen exceedingly, as in the drop sic: Others their outward limmes withred, consumed, and dried vp, their sinowes shrunke and growne hard, though the Ulcers in the one and the other should be like in shew, yet doubtlesse the healing of these Ulcers will be found very much different, wherefore for one generall note remember that the Ulcers in the full and hydropticall bodies will require more desiccative medicines, as namely the *Vnguentum diapompholigos, de mimio, Vnguentum album Camphoratum* and the like: And the other kind the *Vnguentum basilicon incarnatiuū*, and the *Arceus* linament and the like to those. Some sea Surgeons haue commended to me of their practise the vse of *Vesicatory* medicines, namely *Contharides* in painfull swolne limmes, which I leaue to the practise of others further to commend the same, my selfe hauing reserued it as a great secret from a Surgeon my friend, but made no such experiences thereof my selfe.

And further touching the cure of Ulcers in this disease vntil the obstructions of the liuer and spleene be remoued, those Ulcers giue no place to good healing; wherefore since notwithstanding they must bee carefully attended for conscience sake, I aduise that all sharpe and violent medicines be shunned, and all soft and anodine things

Two strange effects the Scuruie causeth, the first an Hydropticall instation of the whole body.

A second is consumption of the body.

Experience the best praiser.

Obstructions of the Liuer must be remoued before the Ulcers can be cured.

A caueat.

applied that you know or can learne, prouided they bee warrantable medicines, for otherwise they not only strue against a streame, but put your Patient to needlesse disquiet, and thereby increase this disease.

How to help the body extremely bound through the Scuruy.

I haue here in part shewed the Surgeons mate my opinion concerning the cure of the Scuruie, to which hee may ioyne his owne and other mens experience, where he can gaine instructions worth following, together with his owne daily practise, which, if he be wise, he may likewise set downe, onely let me aduise the young practitioner that sometimes (as my selfe haue experienced) the scuruie produceth such extreame costiuenesse, as neither *suppositorie*, glisters, or any Laxatiue medicine whatsoever will auaille, but that the excrements must be drawne out of the *Longanum*, or the *Intestinum rectum* with an instrument, for they will be like drie lumps of clay, or hard sheepes treckles, as they terme them, the which instrument I haue appointed and is an easie and a fit instrument, called by me *Spathula Munda*, which instrument being a little warmed, is then to be annointed with oyle, and so gently put into *Ano* to draw out the excrements, and to make way for the glisters-pipe, which, when it hath clenfed some sixe inches, or siue inches, you may assay by a glisters againe. Furthermore it sometime happeneth, that by the long remaining of the excrements in the *Longanum*, the gut is either excoiated, or at the least inflamed. In such a case you may take notice that you forbear salt, as is said, and all sharpe heating things in your glisters, as *Coloquintida*, *Hierapigra*, *Scamony*, *Agaricum*, *Euphorbium*, and the like: and content your selfe to administer for the first, a glisters made onelie of a decoction of Bran alone, or of Mallowes, or of Comfry rootes small cut, or Linseeds bruised with ζij of Deere suet, *Vnguentum Diapompholigos*, or as much *populeon* or *Vnguentum album*, as is said, and rather if you finde that helpe not, giue a dose of *Aquilla Laxatiua* which will purge easily without any offence at all, and helpe to heale the gut, and this course is better then by sharpe glisters to

What must be done for the cure thereof.
A glisters.

Aquilla Laxatiua.

purge

purge, which will offend the gut, and after the said purge it will not be amisse if you see occasion, to giue a like glister againe as before, and note that if in the glister some of the ingredients should be wanting, you may neuer the lesse proceed with the rest with good profit, provided if you haue better you vse them, neither doe I heere intend strictly to enioyne the Surgeons mate to my rule, but if hee haue better, let him vse it, and forget mine in the name of God.

The aforesaid glister repeated.

Moreouer, if the patient his disease be in the forme of a consumption, the body being dried vp as it were, or with shrinking of the sinewes: then if you intend to purge the party, giue him pills called *Pilule Rassi* for the first remedie, but if he complainemuch of paines in his ioynts, then a dose of *Puluis Arthreticus* will do best, or purge him with *Aquila Laxatina*; it is also a general good purge at all times, and almost in all cases, though best in the French Pox and Dropsie. And though I haue formerly touched the forms of some Cataplasmes, yet for that there hath bene much good found in the application of this Cataplasme made being of warming, comforting and anodine medicines, I thought good to note it, which is as followeth. R^t the flowers of Cammomile, Mellilot flowers, Wormwood & Hypericon and Balme, of each M. j, Bran M. j. ij, Linseed, Fenigreeke, of each ℥ss. Comfrey and Mallow roots, of each ℥ss, barley meale ℥ij. bruise the herbs, and boyle these in milke, beere, or water, then adde of oyle of Camomile, Dialthæ, oyle of Dill, of each ℥ij, *Axungia* ℥iiij, apply it warme: note likewise, that where you haue not all these recited ingredients, yet that you take so many of them as you haue, and try their force, for if a few will do the business, as sometimes it will, it were vaine & wast to vse many.

The cure if the body be consumed by the Scurvie.

Wherein the chiefest vertue of Aquila Laxatina consists.

Cataplasmes excellent in this case. How to make the Cataplasme.

Sometimes for a need you may make good vse of a decoction of Bisket in wine or beere, which warme applied will wonderfully comfort a weakelimme, and alswage the paine, for sometimes the very good warmth with good ligature auaileth much: fatty things must bee forborne in some,

Some things
better then fat
in this disease.

some cases, namely when the paine is sharpe and quicke, least you cause putrifaction & suppuration of humours against your will, yea and rather vse Acetosous medicines, and Anodine sometime, also musilage medicines are to be forborne, for like reasons: in all which cases, confer with other writers: aske counsell of thy Elders, and keepe uer in writing thy owne good obseruations from time to time.

Counsell dire-
cting what to
be done if means
may be had.

A word or two to conclude for the young Surgeons concerning the cure of this disease, when they come vpon a coast where you may haue some helps, let them vse some one of these following, they shall find them good vpon triall.

℞: *Absuthia*, *Iuniper Berries* of each m. j, Goats milke, lib. 4, boyle this together, the hearbs and berries well brused till a third part be consumed, then straine it, and adde of saffron in powder ʒ. j, stirre it on the fire till it haue boyled a very little, and set it to cleer, and giue the sicke thereof three times a day at the least, viz. morning, noone, and night, this drinke hath cured many in great distresse: if you haue no goates milke, sheeps milke, or for a need, Cowes milke will serue.

Another.

Another good
drinke.

℞. Water Cresses, Sorrell, and Wormewood, of each one handfull, bruise them well, and broyle them in three quarts of Whey or new milke, and adde thereto a little sugar and saffron, and let the sicke drinke thereof as often as hee will.

Whey sodden
with diuers
hearbs very
profitable.

Whay drunken of it selfe is very good, but better if, the iuices of scuruy grasse, sorrell, Coclaria, wormewood, Watercresses, the greater or lesser fort, Brooklime, Scordium, Spoonewort, water Iermander, or of some of them be mixed therewith, for that they are all approoued good medicines, and doubtlesse some of them are to be found in other Countries and coasts, as well as in England.

Also

Also an infusion or gentle decoction of the roots of the hearbe *Rhaphanus siluestres*, or horse-reddish in vineger, or mixed with beere and drunke, is exceeding good, or eaten of it selfe with bread. ¶

Bay berries, and Juniper berries are also wholsome boyled in whay against this disease, for they open obstructions: likewise from these former hearbs may many other good compound medicines be made. *Bay-berries also and Juniper-berries are good.*

And generally note, that bitter and sower medicines preuaile most to the cure of this greese, amongest which sower medicines you haue that are approued good there-to, these that follow as cheefe, Iuice of Lemons, of Limes, Citrons, and Oringes. *Sowre medicines very good.*

Oyle of Vitrioll, oyle of Sulphur, spirit of Salt, vineger of Wine, and the spirit thereof: also the Sirups thereof, so many as are in vse, and the rather, for that they cut away the tough and grosse flegme, and haue power also to open obstructions. In like manner, the iuice or pulpe of Tamarinds hath a great acetosity, and is found a precious remedy against this disease, the vse whereof is noted already.

Also: note further that there are few diseases at sea happening to Sea-men, but the Scuruy hath a part in them, the fluxes which happen chiefly proceed from the Scuruy, and I suppose if Seamen may be preferued from that disease, few other diseases would indanger them. *An obseruation.*

The conclusion.

These recited medicines for Christian charity I thought not amisse to publish, admonishing young men to be wise and carefull to make right vse of them, and as neere as they can, to respect in the vse thereof, Time, Place, Age, quantity, quality, temperament, strength, climate, cause, and what else is fitting to be regarded for the good of the sicke, and credit of themselues, and let them auoide slothfulness, auarice, enuy, feare, pride, or what else may hinder these

these duties, that God may giue a blessing to their labours and then the praise and comfort shall returne to themselves, which God grant.

And for the elder sort of graue Artists, I craue their charitable censures of my weake or vndigested instructions, which I no way meane to them, but to babes in Surgery, and so I conclude to the honour of the Almighty, concerning the Scuruy for this time.



Concerning the Fluxes of the bellie.

THe principall Fluxes of the belly by a common consent of diuers ancient writers, are chiefly referred to three kinds, namely:

{ *Leienteria.*
 { *Diarrhoea.*
 { *Dysenteria.*

What Leienteria is.

Leienteria is distinguished to be that Fluxe which either passeth the sustenance taken, wholly vndigested, and that without any bloud at all, and without great paine, or as it were halfe digested. The true causes of *Leienteria* proceede chiefly through imbecility and weakenesse of the stomake, which may be occasioned many waies, whereby the vertue retentiuie is weakened; yea and sometimes the stomake referuing apostumation is either wholly weakened, and cold and broken, or sometimes by crude humidities is oppressed, and must be strengthened, both inwardly and outwardly, by things that corroborate and warme the same, as is *sirupe de absinthio*, or *oleum absinthij*, *Chimice*

The causes of Leienteria.

Cruditie a cause.

mice three or foure drops thereof in wine, or beere for
 neede, and I haue found it good to a strong body, at first,
 namely in the beginning of the disease to giue him a vo-
 mit of the infusion of *stibium*, or rather of *Saluetrioli*, ten *A vomit at first.*
 graines if it may be had, or of *aquila vite* foure graines,
 or of *Cambogia* twelue graines, and so the medicine hauing
 done working, let him presently sleepe fasting, if hee can;
 if not, giue him a little Cinamon-water, or a little *sanguis* *To corroborate.*
prunellorum, if you haue it, or a draught of good aligant,
 or conserue of sloes, or quinces; and shortly after, name-
 ly three houres, if he cannot take his rest, giue him three
 graines of *Laudanum* in a pill, and so appoint him to rest; *An opiate.*
 but if you conceiue, or feare the disease to proceed of a-
 postumation in the stomake, then beware of giuing any
 vomit before perfect suppuration of the same, for it is
 deadly, but outwardly you may apply to the stomake a
 bag, with wormewood, mints, or sweete marioram, and *Stomake cor-
 sorted.*
 warme being sprinkled with rose water and vineger, or
 else a bisket bedued well with rose water and vineger, be-
 ing steeped, must be applied to the stomake; or annoint
 the stomake with *unguentum pectorale*, or with oyle of nut-
 megs made by expreffion: also *Theriac a andromachi*, or *the-
 riaca Londini* ζss is very good giuen him vpon the
 point of a knife, or Marmalad of Quinces is also good: *Pectorall vn-
 guent.*
Methridate is very fit and approued, or grated Nutmegs
 is very good, and Cinamon in powder taken in meats or
 drincke is good likewise; if these things answer not thy de-
 sire, thou maist proceede to medicines more astringent, *Cordialis.*
 such as follow in the cure of Disentery, one very familiar
 and good Medicine is *sanguis prunellorum* aforesaid, the
 dose is ζj or ζij with Mint or Wormwood, or *Carduus*
 water, taken going to rest, or taken of it selfe. But your
 mentioned *Laudanum* in all Fluxes iudiciously admini-
 stred is the only sure helpe, neuerthelesse in this grieffe trie *Astringent
 medicines.*
 other good things: first all Aromatized strong waters are
 conuenient in this case, moderately vsed as well to auoide
 further Fluxes, as also in these Fluxes to comfort the sto-
 make, *Cordiall waters.*

Diatrion piperion.

make, stiptike wines serue well for it:likewise, *Theriace dia-*
nesseron ℥ij now and then, also *electuariū diatrionpiperion* ℥ij
 or ℥ij on a knifs point giuen is very good, for it mightily
 warmeth and strengthneth the stomake. But sometimes
 it happeneth that not onely the meate passeth away by
 stoole, but also other vndigested matter with it, in which
 case *Petrus Bayrius* in his *Veni mecum folio* 273, aduise
 to vse things sowe with meate as Veriuce, or the iuice of
 sowe Pomgranats and the like, in want whereof the iuice
 of Lemons is good, or rather sirupe of Lemons, or sirupe
de Agrestis, or oyle, or spirit of Vitriole taken in some fit-
 ting drinke, as *Carduus* water, or faire water, wine, or Bar-
 ly water, the oyle of Vitriole. 3. droppes taken with con-
 ferue of Roses is also good in this disease; outwardly keep
 warme the region of the stomake and liuer, and inwardly
 as is said, namely vse all good comfortable helps that
 warme.

Sirupe of lemons.

Spirits of vitriole.

Of Diarrhaea.

Scope not at the first.

D*iarrhaea* is a Flux of the belly which is either merely
 watrish, or with humors and with slime mixed, for the
 signes of the disease are manifest, the causes too many for
 my leasure to note vnto you, concerning the cure of *Diarr-*
rhaea if you see that the Patient be strong, there is no great
 hast of stopping this disease, for that it is many times a be-
 nefit of Nature, whereby she auoideth superfluous, or ve-
 nemous, or otherwise vicious and offensiue humours: but
 when you shall perceiue that it hath continued certaine
 daies, and that the party is weakned thereby, then begin
 the cure as followeth: First giue him ℥ij of Rubarb dried
 as they vse to drie Tobacco, and poudered either in wine
 or *Carduus*, or faire water, or the infusion thereof without
 the substance, and after the working thereof, a gentle gli-
 ster will doe well, which may likewise leaue a stipticke
 quality in the guts, but not too strong, such as hereafter
 shall be mentioned, and let the party belaid to rest very

A purge.

warme couered, and warme clothes applied to the belly and fundament of the party, and if that helpeth, not you may giue him within three houres three or foure graines of *Laudanum*, and let him againe incline himseife to rest and by Gods help he shall be cured: but if he haue a feuer giue him an opiate first, I meane the *Laudanum*. Good helps to the cure of this disease and all Fluxes of the belly, are these following, first to refraine and resist as much as is possible the motions of going to stoole, not to straine or force the body being at stoole, not to sit long being at stoole, in rising to remember to put vp the fundament with a clout, and that if it may be with a warme soft clout: to sit as hot as the party can, namely if it may be often to sit vpon an oken bord hot is very good, hot trenchers, or peeces of bords heated and applied to the belly are very good, and to take the fume of wine vineger sprinkled on a hot bricke, or iron, and sit ouer it on a close stoole is approved very good, and to sit ouer the fume of Franckencense or Amber with a chafing dish, and a few cooles in a close stoole is likewise very good, this disease in our climate for the most part by skilfull Phisititions and Surgeons is well and speedily cured, but in the *Indies* it is very hardly cured, in so much that many haue died of it, partly by the great wilfulnesse and disorder of the Patient, and by your leaue also by the ignorance of the Surgeon being a thing they had not beene warned of before, nor practised in, and by not hauing good remedies and instruments fit at hand to giue men helpe, wherefore let young Artists haue a care to these afore mentioned rules and medicines, not scorning them.

Warmth is very good.

Laudanum.

Worth the abusing.

Manuall help.

To sit hot.

A fume.

Care to be had.

And among other needfull instruments for poore Seamen in fluxes, neuer be vnfurnished in the shippe of one or two close stooles with doores to them, and brasse pailles, that poore miserable men in their weakenes may be cased thereon; and not be constrained to goe to either the beake head, or shrouds (as they terme it) for that not onely increaseth the disease, but also causeth the falling downe of

A dangerous
accident.

Admonition to
young Artifts.

the Arfe-gut, a fearefull accident, except the Surgeon be very carefull, diligent, and ready handed, in which cafes, all nicenes, lazines, and disdainfulneffe (too much cleaving to some young men) muft be laid afide, for the very omitting of his duty in reducing the gut fallen, may eafily be the death of the patient; whose blood will cry to God for reuenge: Wherefore young Artifts that professe to feare the Almighty, be compaffionate to the meanest creature in this difeafe, euen as you would others should do to you in the like cafe, and not otherwife.

Petrus Bayerius an ancient learned writer, alleaging *Galen* in his second booke, *de locis affectis*, defineth this difeafe as followeth: It is, saith he, tearmed *Difenterium*, where-as variety of substances are sent out with the excrement, producing excoriation with dolor and paine, as if somewhat were shauen from the small guts, and that shauing, saith he, proceedeth from choller and turneth to vlceration of the guts, and is compleat in two weekes, or proceedeth of a glassie coloured substance, and hath his termination in foure weekes: or proceedeth of a Melancholy humour, and is in perfection in forty daies: first beginneth the fluxe, then followeth the excoriation, &c. But to trouble the reader much, or my selfe with long definitions, eyther of the causes or signes of this difeafe, my leisure will not permit me, and the rather will I not insist thereon, for that in reading I finde diuers learned and reuerend writers that haue entred into long discourses of the signes & causes of this grieffe, prescribing diuers methodicall rules, and yet they conclude of the cure of *Difentery*, for the most part of them with a kinde of Empericall forme of curing, namely some reciting one, some another medicine for the generall cure of this difeafe: many of them ending without any rationally, or methodicall forme at all, which argueth in my opinion, that it is impossible eyther to finde out all the causes thereof, or to prescribe any one true forme for the generall cure of the same, but the discreet Surgeon must be armed with iudgement in these following principles,

Ambiguity im-
pertinent.

Aduise to the
Artiff.

ples; namely that if he perceiue it to proceed by fulnes of bloud or humours, to seeke the health of the Patient by sundry the most rationall and fittest euacuations; as namely, bleeding, purging, and slenderesse of diet: then also, to proceed to medicines which take away the acrimony, and heale the inward parts, then to those which are Anodyne, and causeth rest. A learned French Surgeon named *Guillemeau*, writing a Treatise of this disease, in his conclusion saith as followeth: The Emperike Medicaments which the methodicall Physitians so disdain and esteeme of little worth, are those which weethrough our experience, and through the diuturnall vse of them, haue found to be most excellent, which being vsed with Iudgement, are not to be disdained, seeing that *Gallen* himselfe testifieth, that the Physicion must be established on two foundations, to wit, reason and experience, whereof reason is as it were the soule of the same, which measureth and pondereth all things, and the experience the body as a prouident tutor and schoolemaster, wherefore seeing that experience teacheth vs that Rubarb in what manner soeuer we administer the same, (but especially the infusion thereof) is very commodious and profitable in this disease, as likewise is *Spiritus vitrioli* with Rose-water, and Plantane water, and also being administred with Cinamon-water, saith *Guillemeau*, there is a sugar like *dulcor* or sweetness extracted out of leade, which neuer deceiued the hope of the Right Worshipfull Master *Duion* a very learned Physicion, whereof I haue attained the best of these discourses: the tincture of Corall and of yellow Amber, extracted with *Aquavite*, is in operation admirable, also *Crocus Martis*, or *flos Sulphuris* being in season administred with the conferues of Roses, Marmaler, Citron rindes, with other such like things are very commodious, because among naturall things I know nothing exsiccateth more, and opposeth it selfe more against all corruptions. To conclude, there are innumerable sorts of remedies which wee must so compound, that they may haue one similitude, or

Guillemeau his opinion.

Ground of Aesc.

Rubarb praised.

Saccarum Satmni.

one Analogy with the disease : finally we must in extreame Difentery for the last remedy indeuour to mitigate the pain with narcoticall things, as is the *Oleum Insquiami mandragora*, the cold feedes, the *Philonium requies Nicolai*, and many other such like compositions which are vnto this disease vsed, and which may not be administred except great Iudgement and aduise had thereon. Thus much out of *Guillimeau*. This disease chiefly afflicteth Souldiers in warres, and Sea-men in long voyages, and namely in hot countries, chiefly when after short and hard allowances they shall happen on the sodaine to get great store of rawe fruit, fresh meat, flesh or fish or any other great change of pleasant dyet, in which cases reason and Iudgement, as the principall helps are to be vsed, as for instance this disease is incident much to such as change the place of their abode for a farre hotter or a farre colder country, but chiefly into hotter, witnes the mortality through that disease which hath often befallen our Souldiers in the warres in France, &c. As also now at Bantham, how much doth it afflict them that liue there. Moreouer as is said, if it proceede of repletion, euacuation, and thinne dyet, is the meane to proceed in the beginning of the cure thereof: if it proceed of an acrimonious fretting humor, then one of your first helps must be a present purge, if strength will beare it, namely of Rubarbe, as is said in the cure of *Diarrhea*, or a Decoction of myrabalans and also a good Barly water: the second good help is a Glister, which may be proper against sharpe humors: and after to conclude the cure with a dose of *Laudanum Paracelsi*, but if the party be in great weakenesse and want of rest, giue him some comfortable glyster first, next that an *Opiate*, I meane the *Laudanum* one dose: you may begin in weake bodies first with *opiate* medicines, in that there is most need of ease, and if you find after rest it help not, vse a Glister or a purge as you see cause, for though the *Laudanum* at first cure not, yet it giueth rest, whereby the party afterwards, it is likely, will bee the stronger to indure cure by other reasonable medicines,

What people most
subject to this
disease, and
where.

If the Patient
want rest, giue
him a Glister.

medicines, which done, if that answer not thy desire, thou mayst returne to *Laudanum* againe and againe, alwayes remembring, as is sayd, there bee foure hours at the least distance, betwixt each dose, and if the disease proceede of heat, seeke to coole the bloud by a decoction of Plantane and colde hearbes or seedes if they be to be had, or at sea with such medicines as are vsed to quench heate, and are not meereley sharp, and yet oyle of Vitrioll is much commended to be taken certaine dayes together in any kinde of distilled waters either Plantane, Sorrell, Strawberies or the like, whilst the sayd waters are good and sweete, or with *Aqua Sparnole*, if it be at hand, also a barley water with a little Allum or Galles in powder is singular good, so is Bole, but the finer Bole the better, and *Terra Sigillata*, and Sirupe of Quinces is good also in that case, add so are all the medicines made of sloes, after some due euacuation, as in thy discretion thou shalt see reasonable, but to conclude, a dose of *Laudanum opiat*, is best to finish the worke for that goeth before, or rather exceedeth all other medicines in fluxes, for that swageth all paines and causeth quiet sleep, which often euen alone is the true perfection of the cure. And further, if it shal appeare, that this disease haue so gotten the vpper hand that the patient is growen very feeble, his bloud being wasted, appoynt him a diet that may warme and comfort the stomacke, namely, at land if it may be had, Brothes of Chickings or the like, with some spices therein, and egges and sugar, and a little rose water, but not honey, for that increaseth gripings, and cawdels with egges wine and spices, according to good discretion will doe well, if they may be had, and giue him, if thou see cause, a glister, if there be feare of excoriations in the guts, namely a decoction of Barley or Bran, or of Bran onely with Deere suet ʒij. let not your decoction be too slimy of the Bran, and adde if you can get it, the yolke of one egge, for egges comfort much and swage paine, the yolke of the egge must be well beaten with the decoction by little and little, so taken very warm, or if the party haue

The oft repeating
of *Laudanum*
requireth this
caution.

Laudanum
laude dignum.

How to restore
the patient very
weake by Disen-
tery.

A glister against
excoriation.

*A glister for
griping through
Dysentery.*

gripings in his guts, make this glister following, and for want of Bran take a little wheat-flowre, and with Camomile, Sentaury, Worme-wood, St. Iohns wort, or some of these, make a decoction adding also Anis-seede, Fennell, Dill or Cummin-seedes, or the like, or some of these at the least, adding after the boyling, some two or three spoonfuls of *Rosa solis*, or good *Aqua vite*, or some strong cordiall waters, if you see there bee cause to comfort and warme, and adding also, as is sayd, Deere fuet ℥ij. with waxe ℥ss.

Another glister

Also glisters of milke and egges onely are very good to swage gripings and paines, where they may bee had, also as is sayd, warme clothes to the belly and fundament applyed are very good, and note still that rest procured is a principall helpe in curing all fluxes.

Another glister

For excoriations of the guts, make a glister with a decoction of dry Sentaury, Hipericon, Worme-wood or Balme, with Barley adding of Deere fuet ℥ij. and a little dried Galls in powder, or cut in slices, or *succus acatiae* or *Cortices granatorum*, or dried red roses, if you haue them, of Balauities, which are flowers of Pomegranets: Note what powders soeuer you giue in glisters, let them bee exceeding finely powdered, otherwise they are very dangerous, and feare not to administer an opiat, as I haue said, prouided that there bee foure or fise houres distance of time twixt each dose, also you may giue a dose of Rubarbe, namely ℥ij. or ℥ss. parched and powdered fine, for so it doth best, taken either alone, or with *Sanguis prunellorum* one small spoonfull in wine, and a little Cynamon water, or in any other conuenient drinke, as the present state of the sicke shall cause thee, or for want of wine, beere or water, you may giue the sicke also conserue of roses or quinces, after which, if cause bee to giue the *Laudanum* againe, you may safely doe it. Furthermore in this case, as also in all kindes of fluxes, fumigations are very good medicines, namely sitting ouer a close stoole, prouided the sicke bee very warme kept, and not too hot, to
which

which purpose a well burned bricke heat very hot and put vnder the stoole, laying two colde bricke vnder it, for burning the stoole, and then sprinckle often the hot brick with vineger if the disease be hot, or with vineger and *Aquavita* mixed if it be colde, and for want of bricke some great peeces of olde iron will serue, as it is already rehearsed, also decoction of cynamon or cloues, or both together, or nutmegs set vnder the stoole, that the warm steam of the spices may come vp into the body of the patient, is very good. Note further, that where you feare a fluxe of the belly may follow, that you purge not the party with *Coloquintida*, *Trochis de Albandall*, *Agaricum*, nor *Dia-gredion*. And remember euer when you giue *Rubarb*, that you giue cinamon, or ginger, or Anis-seedes, a little therewith, which correcteth the flatuous disposition thereof. If this disease of the fluxe shall shew it selfe to proceede of any contagiousnesse of the aire, as sometimes it doth, this is certaine'y the most fearefull of the rest, for although all diseases haneth their originall from the hand of the Almighty, yet then we haue all reason to call to our remembrances, the words which the Prophet *Dauid* speaketh in the *Psalmes*, *Whither shall I flie from thee O my God?* when therefore the aire which we are forced to receiue into our bodies shal threaten vs, then if euer, it is high time for Surgeon and patient to crie vnto God for his helpe and mercy, and yet not to mistrust, but to vse all artificiall meanes, referring the successe to the Almighty. Wherefore in this case I holde nothing better then a good purge of *Rubarb*, and then to take three or foure graines of *Laudanum Paracelsi*, then after there may bee giuen him one scruple of the best *Treakle* or *Mithridate*, or *London Treakle*, or meerey *Laudanum* alone. You may giue the party also a little *Cynamon water*, or *Aqua Theriacalis*, or *Carduus water* laying him to rest: It were also to be considered whether the body standeth in neede of bleeding, purging, or a glister: but when as the disease proceedes from contagious and venomous aire, and is fierce, I holde it the safest

In a fluxe of the bellie auoyd purging medicines.

All diseases proceed from God.

God must be sought vnto.

The cure of a flux through the contagion of the aire.

*If the fluxe bee
ferce and sudden
what to be done.*

course to forbear bleeding or purging, for feare of drawing backe the venome to the principall parts, and rather to flie to Alexipharmacons or Preseruatiues, as Venice Treakell, Mithridate, Diateseron, London Treakell, or the like: And presently after, or immediately with it, as is said, giue a dose of *Laudanum*, which of it selfe is a perfect cordiall, and a good preseruatiue.

*The flux through
the aire is infe-
ctious.*

Many learned writers are of opinion that this disease is infectious, and that the breath and excrements of the sick man may easily infect a sound man, affirming also that from putrified and diseased bowels, infectious vapors doe ascend and descend, and partly therather by a kinde of simpathy our bodies haue each with other, but lest that opinion of mine vitered may perhaps offend the courage of young Artists, whom I seeke by all possible meanes to embolden, let them take this rule from mee, in the feare of God, I holde no disease infectious to me, in that I haue a lawfull calling, and I am therefore bound to visit the diseased, which who so neglecteth, God will finde him out with that disease or a worse. Now a word or two of such medicines as are belonging to the chest found in the ship, or at the vtmost may be found in the East Indies, or that are likely to be found there I intend to set forth some instructions for the Surgeons Mate: and first note I haue cured many, both in Desenterie and Lyenterie, with burned Harts-horne, or in want-hereof I haue found that onely the hard bones of Beefe or Porke calcined or meerly burned till they be white, for so they must be, and it may easily be done in any wood or coale-fire, being not a fire of sea-coale, and then being powdered fine, and giuen continually in the ordinary drinkes, during the time of the sicknesse it helpeth much, and you may assure your selfe, that if you take much or little of it, it can do no harme to be taken, and with some few drops of Cynamon water, if it may be had, it is the better, or a little Nutmeg and Cynamon in powder therein, also I haue giuen it sometime with *Rosa solis* and faire water mixed, of each two spoons
fuls

*Infection should
not daunt Sur-
geons called law-
fully to the cure
of any disease
whatsoener.*

*The cure of Di-
senterie at sea, &
of Lyenterie.*

fuls and ℥j. of the powder of bones.

Another secret which hath cured many of the fluxe.

R. Wheat flowre, and thrust it very close together into an end of a clowt, and so binde it vp hard, and close like a bullet, and put it into boyling water, and boile it three houres and more, and you shall finde it wil bee very drie and hard as chalke, and powder it, and giue of this powder ℥ij. or more in any liquid substance fitting, and it is a very good medicine for any flux of the Belly, either white or red, this medicine hath been often prooued, and found sure at sea and land, yet it helpeth the vertue of the medicine well, if the vehicle or menstrum you giue it in be also good, namely if you giue it with some liquid medicine proper to the greefe, also *Crocus Martis* ℥j. giuen in red wine, Aligant or French wine, or with beere or water for a neede, adding certaine drops of Cynamon water, it is a very good medicine. The same also is giuen with Venice Treakell, or London Treakell, or good Mithridate is likewise very good, but to a weake person giue it alone with Sugar, it will please his taste better then with other strong medicines.

But if you perceiue the disease proeedes of wormes, as often it doth, then giue the patient a glister of a decoction of *Althea* roots, with a little worme-wood, adding *Coloquintida* ℥ij. where there is no great acrimonious paines in the guts, but where there is great dolour in the guts, rather put some Bay-berries, namely ℥ss. in your decoction, which decoction you may also make meerly of the bran, if you please, and make it not too slimie, I mean, put not too much bran or rootes therein, then adde, if you haue it, of *Aquilla Laxatina*. 12. graines, Deere suet ℥ij. or three ounces, and giue it stirring well the powder therein, this *Aquilla Laxatina*, certainly will kill anie wormes, and giue present ease: also almost all bitter things kill wormes, as *Alloes*, *Agaricum*, *Coloquintida*, *Worme-wood*, and the like but principally *Aquilla Laxatina* doth it sure, and is safe to be giuen, the dose by waie of glister is to 10. graines.

The cure, if the disease proeede of wormes.

A Glister.

The meanes to kill wormes.

M^r. Edwards his medicine for the Fluxe.

℞ red-rose water ij spoones-full, Cinamon ℥ ij, Almons of valence ℥ iij vnblanched, the Cinamon is to bee brused and boiled in iij pounds of water till ij pounds be consumed, then reserue that decoction and adde three pounds more of faire water to the former Cinamon, and boile it as afore, reserue both the waters together, then beate or rather grind well your Almons, and being well ground and beaten adde thereto some little quantity of the water mentioned, grinding the Almons therewith: and againe beate the said Almons, and so often beate and strainethem with more of the said liquor or water till all the substance of them be in the decoction which will be in the forme of an Almon milke, then adde rose-water ij spoonfulls, and as much suger as to sweeten the said drink, giue the Patient thereof to drinke so oft as he please.

*Gluttorie a
cause of the
Fluxe.*

Let such as feare the flixe not ouergorge themselues, for the ouercharging and straining of the stomake oft bringeth this sicknesse, chiefly when the body is weake, as also if the fooderaken be crude or not well boyled or roasted, and meerey fresh without any salt. Also the vse of eating Tamarindes brought from *Bantham* if you vse them ouermuch by their acrimony may easily cause a fluxe, although their vertues in preferuing from the Scuruie, are vnreprouable and very good in deede.

*The signes of
the places af-
fected with the
Fluxe.*

The higher toward the stomacke the disease hath his beginning the more dangerous it may be adjudged. By the complaint of the sicke you shall know partly in what part of the body the disease is, though not alwaies: if the small guts be in the fault there is alwaies great paine about the nauill, but if it be in the gut *Duodenum colum*, or *rectum*, then the chiefe paine is in the lower parts of the belly, according to their places.

*The causes of the
Fluxe with the
signes of death.*

This disease procedeth sometimes by *Apostumation* of the guts, and then it is exceeding painefull before it come

come to a Fluxe, neither can any anodine glister preuaile at all to giue ease till the full suppuration of the guts bee perfected, and that it be broken.

If this disease procede from a former great obstruction either of the Liuer, of the Lungs, or the Spleene, there is small hope of life to be had.

Also when convulsions of the sinewes, hickett, and vomiting, or any one of these signes, especially the two first appeare, then commonly death is at hand.

One learned Writer rehearsing *Hippocrates* for his Author, saith, that vsually before death in this disease a black or blewish spot will appeare behinde the left eare of the sicke, which I also haue seene obseruing it of late: you shall finde Plantaine water to bee very good liquor to giue any drie medicine in for the fluxe, especially where there is any complaint of heate, or excoriation, Plantane seedes are also good, and so is a decoction of the roots of Plantane very good for that vse, or for Glisters where it may be had.

Plantane water, and seeds, and roots are very good for the Fluxe.

The purging medicines which are called Diaureticke, or that prouoke vrine are also praised by Writers: but I leaue them to be done with great iudgement, onely if you vse any medicine to cause vrine, the pouder of yellow Amber is a sure one, and without any manifest hot or offensive qualitie, so is the pouder of the Seahorse peeze and the morse tooth, of any of which if you giue $\text{ʒ} \cdot \text{j}$ for one dose you may safely do it, but a ʒ is sufficient at once. Oyle of Terbinthine and of Amber are good diaureticke medicines, and much more forcible then the former, but not so fit in this disease, but rather good to driue grauell from the kidnies, and serue well touching the cure of many cold and slothfull diseases, as the Dropsie, Scuruie, Lychargie and the like. A vomitiue medicine is not amisse in Fluxes whilst the party hath strength, but the young Artist may easily make an error, small in shew, which notwithstanding may quickly cost a man his life, wherefore if he attempt in such cases to cause vomite, as one principle let him haue great care to the true dose of his medicines;

The giuing of vomits require great care and a good iudgement.

but

but first let him haue good consideration, whether it bee conuenient to vse any such medicine, or no, for where easier remedies will cure neuer attempt greater, but mistake mee not, I speake these things of loue onely to children in Art, and not to graue Artits, from whom I would gladly learne my selfe. Further I aduise the younger Artits, not to striue to stay a Fluxe, as is said, in a full body, till nature be first vnburthened, partly by the disease, and partly by medicines fit.

But as concerning Phlebotomie rehearsed as necessarie in the cure of this disease, doe it not without great discretion, and iudgement; for the Patient weakned formerly with so terrible a sicknesse, and his spirits spent bleeding by a vaine, not aduisedly done may suddainly ouerthrow and kill him, yet againe I must confesse that rule holdeth not generally.



CERTAIN E SIGNES, PROGNOSTICATIONS, and instructions which I hope will
not be vnprofitable for YOUTH concerning Fluxes.

The signes preceding the Fluxe.

THE Signes of the disease are alwaies manifest of themselves, the signes afore-running or demonstrating of the instant disease are these following: Paine and torture of the intestines, or ventricle. *Galentellifieth cap. 2. locorum affectorum*, in the very beginning of a Fluxe, saith hee, sharpe choler is sent foorth, wringings, and as it were off-scouring, or off shauinges of the intestines appeare, then afterward there followeth a little blood, and then beginneth the disease Disenterie, and by the relation of the Patient it will often appeare if the paine be aboue or below the Nauill. A painefull slow expulsion of the excrements of the belly; with small fragments bloody and fatty.

do

do argue the higher intestines to bee affected, but if the grieffe be lower, a paine below the nauill shall torment the Patient, then you shall see much fatnesse with fragments, and those fragments of the lower intestines will be more grosse and lesse mingled with the excrements. A Disenterie slaying popularly and killing many, may be adiudged contagious, and is thought to follow a pestilentiall constitution, and if in the times of a generall infection by the disease Disenterie, or Leienterie, a white Fluxe called Diarrhæa with Tenasinus appeare in the Patient, that party a little after shall bee afflicted with the Disenterie. The Vlcers of the small intestines are more dangerous then the vlcers of the greater.

*The excrement
in fragments and
fat therewith.*

Difficulty of the intestines, if it proceede from a blacke choller is held mortall: *Aph. 24. Sect. 4.*

Long difficulties of the intestines, hunger and wearinesse are euill signes, and it is so much the worse if it bee with a feur: *Aphor. 3. Sect. 6.*

*Mortal signes
in the Disenterie.*

Euery Fluxe especially if it be Disentericall, happening after a long sicknesse is mortall; but chiefly if it bee suddaine, because it argueth a suddaine corruption of humors and great debilitie.

A Fluxe drawing to a languishing dropsie is mortall.

If in Disenteria a blew spot appeare behind the eare, the Patient shall die.

The Fluxes that are from the beginning waterish and afterwards like an vnguent are euill.

In all Fluxes of the belly, and in all other diseases, of weaknesse of the appetite, inconstancie of the minde, heauinesse in sleepe, imbecillity of the legges, a hoarse and barking voice, a weake pulse, beating often, paines ouer the whole body, chiefly about the belly, blacknesse of the face, or of a deadly or leadly coulor, and coldnesse in all the extreame parts: these foresaid signes foretell euill, but the signes contrary to these foresaid are healthfull.

The Hicket after an immoderate fluxe of the belly is mortall.

A good signe.

Belching following a fluxe of the belly is good, because it is a signe that nature hath receiued, or againe begun concoction.

A bad signe.

A fluxe of the belly which is not appeas'd by fit remedies is pernicious.

A pestilent fluxe of the belly beginning with *Henteria* *Dearrhea*, or *Tenasmus* is worse in children then in antient men, as experience teacheth.

If that by the difficulty of the Intestins, the excrements come forth like peeces of flesh, it is a deadly signe, *Aph.* 26. *Sect.* 4.

Another good signe.

In fluxes of the belly; changes of the excrements is a principall good signe, vnlesse the change be made worser, *Aph.* 14. *Sect.* 3.

In perturbations of the belly and voluntary vomiting, if such things are purged thereby that ought to be purged, it is good: but otherwise the contrary, *Aph.* 25. *Sect.* *Aph.* 3. *Sect.* 4.

A *Difenterie* which proceeds from yellow choller is not altogether mortall, as *Gallen* affirmeth in his second booke of naturall faculties that many are cured of it. *Lienterie* after *desenterie* is mortall: these Canons following belong to the particular cure of any fluxe of the belly.

Generall rules
for the cure of
the fluxe.

1

No fluxe of the belly before the fourth day if the patient be strong, is to be restrained.

2

The vlcers of the higher intestines are to be cured with medicines taken at the mouth, but those of the lower with Glisters chiefly: and if vlcers be in both, then are they to be cured both waies.

3

To such as cure a *Difenterie*, let adstringent things be giuen before other meates that they may the better be retained.

4

Hot stipticke things are good in fluxes proceeding of a cold cause: And on the contrary, if the concocting faculty shall beweake, the vse of hot things is likewise good.

5

If there be a cough with the fluxe of the belly, the patient shall abstaine from all sharpe stipticke things.

Sweating

Sweating medicines and frications with oyle of Camomile and Dill, by opening the pores, and plucking backe the matter to the opposite part are good in fluxes. 6

Cupping glasses saith *Auicene* applied foure houres to the bellie stay the fluxes of the belly. 7

All stipticke frures by the counsell of *Auicene* are to be auoided in fluxes of the belly, notwithstanding Chestnuts hurt not, as the same Author affirmeth. 8

Sleepe among other things is good for a fluxe, and so is any quietnesse and rest good vnlesse the fluxe proceede from some Catarrhe or rheume. 9

Touching the particular cure if the disease come of a hot cause, let there be a lenitiue glister administred before the fourth day, which is this. *R. Aqua hordei* ℥ 12. *Mellis rosati* ℥ ij. mingle it, and let it be made a Glister, twise reiterating it afterwards, let the chollericke matter bee purged thus: *R. Rosarum rubearum violarum, a. a.* ℥ j. let them boile onely one waline, and in the straining, infuse by the space of sixe houres following these things: *R. Cortices mirabalis: ℥ j. tragac. ℥ ij.* straine the medicine, and let it be giuen: but notwithstanding warily, for indeed many of our annuents did abstaine altogether from purging medicines in fluxes: whereupon *Auicene* 41. capite 3. saith, that it is dangerous to loofe the belly vpon a former loosenes. *A Glister. A purge.*

If the matter be sanguine, and the sicke of reasonable strength, you may let the lower veine be opened, to repress the acrimony of the humour, to plucke backe and coole the boyling of the liuer, witnesse *Auicena* 4. primi chap. 20. Phlebotomy doth binde the belly very much, and amongst many is held for a great secret: for a certaine man of 70. yeares of age labouring with the Dissenterie the space of a month, when no other meanes would helpe him he was cured by letting of blood, yet I confesse my selfe should not easly doe the like.

If the excrements begin to grow thicker, & the gripings begin to cease, the token is good: if in the excrements scraping as it were of the guts seem to appear, it is no token of death.

I reade that the ancients vsed causticke Glisters of *Arsenicum*, as *ylsum*, *Alumen* and *Calx viva*, but these latter Physitions vse rather astringent and narcotice medicines as thus, *Cortices Thuris*, *Majichis Boli*, *Armenie Sarcocolla*, and the like.

The vlcers of the small guts are worse to receiue healing then those of the great guts, for the greater are fleshie and therefore they receiue consolidation so much the easier. The vlcers of *Ieiunum*, or the hungry gut are of all the worst, because it is smaller then the other, and because sharpe choller doth sodainly happen into it; it hath more vaines in it then the rest, and is next to that noble part the Lyuer, and further one reason of doubt is, for that medicines taken to bind and consolidate, cannot long remaine therein.

In the Disenteria what must be refused.

In the *Tenasmus* and the *Disenterie* comming after it, the patient must abstaine from all sharpe, salt, and bitter things; because by vsing of such things, the excrements become sharpe, and cause excoriation.

Hott things restraine the fluxe of the belly because they make the meat digest penetrate, cause vrine and prouoke sweat, which is found in the drinking moderately of pure wine, as *Auicenz* witnesseth, besides that, it prouokes sleep and helps digestion, notwithstanding it is to be abstained from in feuors, and when the fluxe proceedes from hote and chollericke humors.

A *Disenterie* proceeding from obstructions will neuer be cured with Astringent medicines, but rather with penetrating medicines, by adding a little vineger which openeth more forcibly then wine, and mollifieth obstructions: for if Astringent medicines bee mingled with Operatiue medicines, they increase the obstruction.

Although some say that in the *Lienterie* the meat taken in doth come forth in the same colour and quantity as it was when it was taken in: this notwithstanding is to be vnderstood that the form and colour of it is of necessity changed, but it doth not wholly alter it, for they are altered,

red somewhat according to the *maius & minus*, because it is an impossible thing that the nourishment being conueied through so many intestines, should come forth without any alteration at all.

There are some also which iudge the *Difenterea* and the *Tenuifmus* by motion of the pulse, that the patient hath a feuur if the pulse mooues swift; yet it seemes to me the contrary, although there is an ouer-heating or boyling in the bloud by reason of the hott humours, the great motion of the body, want of sleepe and abstinence: yet with the fluxe onely stayed, the feuur hath an end.

It is formerly saide that the vlcers of the great intestines are to be cured with Glisters, and the vlcers of the small intestines to be cured with medicines taken at the mouth: notwithstanding it profiteth to take fit medicines at the mouth for vlcers of the great intestines, and in vlcers of the small guts to inject glisters, which sometimes ascend to both the ventricles, as experience teacheth: and so also are vlcers in the great guts sometimes cured by medicines taken at the mouth; wherefore let no conuenient helps be omitted in case of necessity.

Remedies for vlcers in the intestines.

And though *Anicena* saith, it is dangerous to purge the belly vpon a loosenes thereof, yet the same *Anicena*, *Gerardus*, *Cremono*, *Serapio*, *Iordanus de Turra* and other latter Philitians of sound iudgement prescribe in the cure of fluxes Purgatiue medicines; therefore they appoint things according to the patients strength, when a *Difenterea* proceeds of many humours; or hauing an ill quality, the cure as *Galen* witnesseth, hath one cheefe and most common intention: to that which is contrary to the disposition to be taken away: Therefore let there be giuen *Myrabolans*, which in this case are most excellent, for they correct the acrimony of the humors, and strengthen the ventricle, and the intestines; in want whereof *Rubarb* may be as well giuen, being dried a little. But if the fluxe be pestilentiall, let the matter be purged presently, as is said, not respecting the concoction of humors.

Galens rule if the Difenterea proceed from humours.



Of *Laudanum Opiat Paracelsi*, and the Vertues thereof.

Here are many diseases which can hardly be cured without Anodine medicines, therefore in the cure of such diseases, I meane where want of rest through extreame paine or other the great disquiet of nature doth foretell an imminent danger of death, if rest be not speedily procured, in all such cases Anodine medicines may doubtlesse with great reason and good warrant be inwardly giuen. To procure therefore safe and quiet rest, sheweth great skill in the Artist, and to the patient is more precious in his grieuous infirmity then much treasure, but in no one infirmity haue such medicines more shewed their admirable vertues, then that noble medicine called *Laudanum Opiat Paracelsi* hath done in the cure of that lamentable disease called *Dissenterie*, or the bloody fluxe, as witnesseth diuers of our nation comming from the East Indies vpon good prooffe, as also being no lesse approued of, not onely by auncient and moderne writers, but by euery expert Surgeon comming from those countries out of their owne, too many experiences thereof haue bin made.

The cheefe vertue of Laudanum.

The vertues of this precious Anodine to be, I meane heere recited, as they are noted and set downe very learnedly by that famous writer *Oswaldus Crollius*, late Phisition to *Matthias* the third Emperour of Germany in his booke called *Bazillica Chimica*, and not by him onely, but also by diuers good Authors of credit, which haue written of the same medicine before, which vertues being very many, may seeme almost incredible, though many of them

Oswaldus a writer of the vertues of Laudanum.

them my selfe am witnesse to be true, out of my daily practise onely, they are ment by the true composition, according as *Theophrastus Paracelsus* hath prescribed it, and is the same composition which the sayd writer mentioneth.

Touching the vertues of the medicine.

THis Laudable medicine (saith *Oswaldus Crolius*) deserueth rightlie his name, although thou call it *Laudanum*, for in all sharpe paines whatsoeuer hot or colde within the bodie or without the bodie, yea, euen when through extreamitie of paine, the parties are at Deathes doore, or almost madde with the vehemencie of the same; this precious medicine giueth ease presently, yea and quiet sleepe, and that safely, but much better the bodie being first soluble, either by nature or art, and you may giue it safely, prouoking first onely one stoole by a suppositorie, or a glistter were better: in the collicke with Mint-water, it easeth the gripings foorthwith. In the paines and grauell of the kidnies, likewise it giueth present ease. In the pluresie it presently and safely giueth ease. In paines of the ioynts it is very good. In the staying of rheumes, as tooth-ach and other like defluxions in their beginnings, it is a singular good medicine, as namely in the tooth-ach, dissolue foure graines thereof in Plantane water, and put it into the eare on the aking side, and take three graines into the body, and lie to rest, it is a sure helpe. In all fluxes of the belly, whether they proceede of sharpe or slippery humors, or whatsoeuer else offending cause taken with masticke, *Terra Sigillata*, fine Bole, or with any other appropriate good medicine, it is exceeding sure, for it fortifieth the other medicines, and doubleth their forces, adding his owne also thereto. In extreame watchings and want of rest, either inwardly or outwardly taken, it is profitable, if outwardly you would vse it, take foure or sixe graines, with three drops of oyle of nutmegs, which is pressed out mixed together, and binde it in two little clowts, and put it into the nostrils,

Oswaldus concerning Laudanum.

Laudanum more efficacious if the body be soluble.

nostrils, it will maruellously asswage paines in the head, and cause quiet rest. In the extreame bleedings of the nose called Hemoragie, it is an approoued secret, that sixteene graines thereof diuided into two pills, and thrust vp into the nostrils, into each nostrill one part, helpeth the same. In all kindes of feuors it is good to bee giuen with water of worme-wood, or pill-wise alone, and if the heat remaine after sixe houres, you may giue it the second time, and after that againe in like time safely, not exceeding the dose: yet let your owne experience lead you, that where you see three graines will not cause rest, in the next portion you giue one graine more, and so increase paulatim, but increase not but vpon good deliberation.

In burning feuors it asswageth thirst, and prouoketh sleep cheefely in those feuors, in which the party seemeth to haue some shew of rest, with tedious dreames and flumbrings mixed.

In the disease called Asthma, and in the Ty sicke, if it be vsed in water of Ilope, it will preferue the diseased patient a long time.

It conserueth the naturall heat, strengthneth the spirits, repaireth strength lost: It is also effectuall to bee giuen to melancholly people which are voyd of reason, and are troubled with the passions of the heard. It is likewise vsed with good effect against vomitting, and the hickocke proceeding of winde, faintnesse or debillity of the uentricle.

In the superfluous defluxions of the excrementall or menstruall blood, it is an excellent remedy with Crocus Martis, or red corral.

In phrensies or madnesse, both inwardly and outwardly it is good mixed with *Aqua vite*, and the temples annoynted therewith.

In the falling sicknes with spirit of Vitrioll, or the quintessence of Camphire, with also oyle of Almonds, it is vsually taken. The dose of this opiat medicine, is two, or three, or foure graines, if there be loosenesse of the belly,

as is rehearsed, it worketh much the better. Note that in some parts of the world this medicine in the mentioned dose will doe no ease, wherefore when you finde that by experience, in the next patient giue more, but not to the same patient without great reason. It is best giuen in any occasion accompanied with waters or other medicines, which are most appropriate to the diseases and parts diseased, and yet may very well bee giuen alone in a pill, which I willingly do, for that the patient then is least troubled with the taste thereof.

The best way to administer it.

But beware you vse not this medicine to any, which are feeble through a great cough being oppressed with tough phlegme and shortnes of breath, for there it is not good: if the disease be violent, as I haue sayd, one dose may bee giuen after another, with sixe houres at the least distance, very safely, but *Oswaldus Crollius* saith, within foure houers, as is said in the cure of Disenterie.

A caution remarkable.

In a word this *Laudanum* passeth all other medicines in the cure of Disenterie, for which cause I haue published it to the benefit of the yonger sort of Surgeons, which aduenture their liues toward the East Indies; I know it is presumption in my selfe and deserues blame, that I should handle medicines of this nature so copiously, for which I craue pardon from that graue and learned Society of Physicians of London, whom of right I ought to reuerence, and do: excusing my selfe that I haue done it meereley for the behoofe of young Sea-Surgeons in the remote parts of the world, wherethy otherwise haue vsed *Opium* in common, without vnderstanding the danger or dose thereof, to the losse of many mens liues. It behooueth young men to bee carefull to carry with them such ballance, as the beame will turne at one halfe of a graine, with waights & graines fitting, and to keepe them warily and alwayes ready at hand for all occasions, for he is an vnworthy Surgeon, which is at any time vnready with such needefull instruments. This *Laudanum* I esteeme so sufficient a medicine truely prepared in all causes, where an opiat medicine

The cause of this description of Laudanum.

Note.

Laudanum excelleth all other Opiats.

Because of his duration.

is required, that if I were vpon my lifeto morrow to vnder-
take a voyage to the East Indies in any great shippe, I
would renounce all other compositions of that kinde
whatsoever, rather then misse it: yet am I not ignorant of
diuers other good compositions of opiat medicines in
daily vse, as namely *Philonium Persicum Romanum, nic. &
mes. Roman. seu Tarcenci, Athanasica magna, Aurea Alex-
andrina, Trifera magna nic. Diacodion, Diascordion*, and
many more, for all which I onely would take the true *Lau-
danum opiat Paracelsi*, for when the rest had fully ferment-
ed at sea, and were voyd of all their supposed vertues,
which their preparers had challenged them to haue had:
yea and had beene turned to crawling Animals, even then
and twenty yeeres after their deathes, may any man relie
vpon the aforesaid *Laudanum*, as a true medicine, which
medicine notwithstanding, I know it is vnpossible for the
Surgeons Mate to prepare at sea, yet for that he should be
the better satisfied, when he hath occasion to vse it, I
thought it not amisse to set downe the ingredients, with
also the true forme of the preparation thereof *in hac verba*,
out of *Oswaldus Crollius* being one of the best I euer found
or read.

**Laudanum Paracelsi Laudatissimum, and the
true preparation thereof.**

R. Opij Thebaici unciastres.

*Succi Hyoscyami debito tempore collecti, & in Sole prius in-
spissati unciam unam & sem. specierum Diambre & Diamo-
schi fideliter, dispensatarum, ana unciis duas cum dimidio mums-
mie transmarinae & seletae unciam sem.*

Salis perlarum.

Corallorum ana drachm. iij.

Liquoris Succini Albi per Alcohol Vini extracti.

Offis de corde Cervi ana drachmann j.

Lapidis Bezoartici.

Unicornum

Of the vertues of Laudanum Opiat Paracelsi. 229

Vnicorni animalis vel mineralis drachmam unam.

Mofchi.

Ambra ana scrupulum j.

In defectu genuini auri potabilis nullis corrosiuis inquinati addantur,

Oleorum

Anisi.

Carui.

Arantiorum.

Citrorum.

Nutista.

Cariophyllorum.

Cinamomi.

Succini ana gutta 12.

Fiat ex his secundum artem chemicã, massa, seu extractum, ex quo ad necessarios vsus, possint pillula efformari.

Observations in the preparation of this medicine.

R̄ The roots and rindes of the younger Hemlocke, casting away the inward woody part thereof : the time of the gathering thereof is the Summer, the Moone being in the signe *Aries* or *Libra*, and before the full of the Moone, and if it might be done it were best to bee gathered in the very houre the Moone is entered into one of the said signes : this obserued, let the Iuice thereof be pressed out, and filtered, and coagulated, then set in the Sunne to harden, which done, extract the tincture thereof *per spiritum vini* : the opium ought to be purged in some distilled water, as of Ilope or the like, as *Aloes* is vsed to bee purged, and after, the tincture thereof to be extracted *per spiritum vini*, the tincture of the *Species Diambra* is to bee extracted also *per spiritum vini*.

The time of gathering them.

The preparing of the iuice expressed.

The preparation of the Species Diambra.

The iuice of *Hioscyami*, or *Henbane* with the extract of *Opium* mingled, together with the spirit of wine, wherinto they are extracted before, is to be euaporated fr̄o them ere that they bee mixed with the rest of the ingre-

diences. Also the *opium* and iuyce of Henbane must bee digested in chymicall manner for a month at the least, that thereby their sulphurous, venemous, and dangerous vapours they haue may be well corrected, which vapours haue a yellowish froth or scumme seene in the superficiall parts of them, and are very obnoxious and dangerous, which I thought not amisse to aduise the studious and industrious Chymist of.

Let all the extractions be done in the true spirit of wine well rectified, and then the longer the extract remaineth in the digestion, the better will be your medicine.

Hee that intendeth any part of this composition for women, must forbear the muske and ambergrece, and vse with it rather foure graines of good *castorium*, I meane in that one dose he intends to giue the women; but in this I digresse from my scope of the Sea-practise, where women in long voiajes are rare creatures. Wherefore to the busines in hand: the feces of the *opium hioscyami*, *specierum ambra* &c. after their tinctures are extracted from them, are to be calcined and brought into salt; namely by infusion in some fitting liquor, after calcination, with also due filtration, euaporation, and coagulation with Cohobs conuenient, and added to the rest of the composition.

And concerning the tinctures mentioned to be extracted in *spiritu vini*, after one monthes digestion the *spiritus vini* is *per balneum marie* to bee euaporated till the residue be almost of the thickenesse of honey: which done and gathered cleane into one conuenient glasse, porringer, or the like instrument, then adde the salt *corallorum*, *perlaurum*, *Mumia* beaten fine, and also the Bezer, and the *cornu cerui*, *muscus* and *ambra* all in fine powder, and well mixed with the said extracts, then adde the aforesaid salts of the recited feces, and also the former recited oyles, all of them first mixed together with the Liquorice and Succini shaken well together in a glasse violi with a few drops of *spiritus vini*, for that the said spirit of wine causeth the recited oyles well to incorporate, which done, and that they are

mixed

A speciall observation.

A digression.

Extraction.

Calcination.

Euaporation.

The manner to finish the composition.

mixed all in one and added to the former, the *Laudanum* is ready, onely if you could forbear your medicine so long that it might afterwards stand in a small Alimbecke of glasse, with a blinde head one month, it would be much the better.

This medicine though it would put many that professe much knowledge in the Arte of the Apothecary to their trumps truly to prepare it, yet to an Artiff which is a true Preparer of medicines it is plaine and pleasant to be done, and once done, it is for his whole life a fure medicine, and will do the worke-master credit that vseth it.

To compose this Opiate aright is hard to a Bungler.

I haue the rather explained this medicine for that so many grosse and dangerous compositions are daily hatch-ed vp, and vttered abroad for currant ynder the name of *Laudanum Paracelsi opiati* to the extreame hazard of the liues of very many, and to the great preiudice of the common-wealth, from the danger whereof God deliuer each honest Christian. And for that the younger sort of Artiffs should not easily bee deceiued with false compositions, though I confesse it is not possible to espie some cunning deceits which may passe in farre plainer compositions then this is, yet take these few notes following when you would buy it, for remembrances. First note, that the medicine is false if it be vneuen, I meane if it haue any course or grosse thing in it, so that it will not all clearely dissolue as a iuice of Liquorice well made will.

Markes to discern the false from the true Laudanum.

For this is an infallible rule, extracts are the pure parts of things, and will wholly dissolue, or be dissolued. Further note, that if either hony or sugar be found in the medicine, it is false.

Also if it be more liquid then the ordinary balls of Liquorice made vp in *London*, it is false or foolishly made, and will not keepe.

Also if it retaine the lothsome smell of *Opium*, it is not to be trusted.

Also if it be not meere of one coulor, so that you see nothing of the ingredients appeare at all, it canot be good.

Notes of the true
Laudanum.

For assure thy selfe this composition truly made must be smooth, and well smelling of such an indifferent hardness that without additions you may roule it into pills, and is not greatly ponderous or heauie, but it is of an vnpleasant taste, I must tell thee, and therefore I vse to giue it, as I haue said, in a pill, except necessity by weaknesse of the Patient when he cannot swallow a pill, vrgē the contrary, or that I vse it in outward griefes, as toothach &c.

Iliaca Passio.

A fearefull vi-
sitation.

Ileos or *Iliaca Passio* is a most painefull disease, proceeding from an obstruction of the small guts, which suffering nothing to passe downwards causeth a great wringing and paine, so that many which are oppressed with this disease doe perish, and die a very miserable death, ending their daies with their feces, or their owne excrements issuing out at their mouths, and it is many times noted for a disease infectious.

Iliaca and *Col-
lica* differ in
place.

This wofull kinde of belly-ach or *Iliaca passio*, differeth from the collicke in the situation, in that it hath his place, and being in the small guts, and the chollicke only in the great guts, so that a vomit sometimes giueth ease herein; but glisters seldome or neuer giue any helpe, for that seldome any thing will be brought forth downwards though the glisters be neuer so strong: but herein the help that is to be hoped for by glisters is farre better effected by the glister siring, then by the glister bagge, for one may deliuer it with that instrument with as great force as you please.

Causes.

THe causes of this disease are almost one with the chollicke, both which are obstructions in the small or
great

great guts, and proceede chiefly of three causes as saith
Dominicus Leo: namely

- 1 The drinesse of the ordure, or excrements.
- 2 Abscessus, & bile, or a botch in the guts.
- 3 Thicke and drie humours.

Also this disease sometimes commeth by distemperature of the ayre being very cold, also by a blow or bruise vpon the gut *Ileon*, the inward causes may be very many, namely by drinking of poyson, or cold water, meates of hard digestion, binding of the belly, and such like.

Signes or tokens.

THE signes or tokens whereby this disease is knowne, are as *Galen* affirmeth, 7. *Aphorif.* 19. is an intollerable paine and wringing in the vpper part of the guts, and no excrements descending downward. Sometimes it mooveth heauy and sore vomits, so that the very feces are vomited vpward, of which disease or greefe scarce any in that kinde doe escape, as *Galen* witnesseth, *lib. 6. cap. 2.* I haue seene the like in a Rupture by reason of a part of the gutte *Illion* that was fallen through the *Peritoneum* into *Scrotum* that could nor bee reduced, the sicke vomited his excrements, and died the second day. Also much watching sometimes causeth great paine in the smal guts or *Illeon*, vnrest, strong Conuulsions, cold in the extreame parts, and if any feces be gotten forth of the fundament by any meanes they being put into water will swimme aloft. *Note.* if this grieffe come of poyson drunke, then the Patient will suffer Tremor Cordis, soundings, debility of the faculties of the body and vomit, doe commonly goe before the pangs, and all these aforesaid signes are vsually more vehement and stronger then in the Collicke.

Prognostica.

When the *Illiak* commeth with distilling or dropping of Vrine, the party dieth within seuen daies,

Galen

Galen aphorif. 44. except an Ague happen so that in the meane time sufficient quantity of vrine doe come.

Item, vomit the Hicket, foolishnes or idle conuulsions are euill signes, *Anicen* vpon the 7. *aphor. 10.*

A deadly signe. The vomiting vpward of the excrements, are deadly, yet young folkes escape in this disease sooner then oide folkes.

A good signe. The *Ileos*, where the paine doth change from place to place, is of least danger: because it dependeth or proceedeth of winde, which is easily resolued.

Another. The breaking of winde vpward or downewards, and stinking much, is euill and deadly: as also the excrements much stinking is the like.

Cura.

Promise no cure **I**N the cure of this disease no Phisitian or Chirurgion, respecting his Credit, will take vpon him absolutely the cure thereof, especially if the Scuruy be confirmed in the patient, but with protestation of death if the patient doe vomit the faces or excrements vpward, but if the Scuruy be not yet confirmed in the Patient, then the cure of this disease differeth little from the cure of the Collicke, and may be differently vsed, and is all one, but that onely the stronger medicines, and greater diligence is to be vsed in this *Illiak*, then in the Collicke: which if it were on shore or land, much more good might be expected, where aire, diet, place, and many other helps, obseruations, and considerations according to the quality of the disease, with aduice also of the learned Phisitians obserued, all which the Sea affordeth not.

Observations.

Certaine breefe and speedy notes for the Chirurgions mate at his neede, when neither Doctour, Chirurgion, nor Apothecary is to be had.

Iliaca of poyson. **F**irst, if the disease come of poyson exhausted, a vomit with warme water, and then warme oyle, or some fat broth is to be administred, and after a day or two some good trekle to be vsed.

If the cause come of crude meates remaining in the stomacke, or that the disease come of crude and raw meates, a vomit is to be vsed.

But if there be no crude meates yet remaining in the Stomacke, then all meanes must be vsed to disperse the winde, and to draw the excrements downward, cyther by *Of potions and glisters.* potions, glisters, and such like: and first with glisters to supple the guts, and to euacuate the obstructions of the lower parts: make therefore a glister of common oyle, or Lin-seed oyle, and giue him, or a decoction of March-mallow rootes, Comfrey rootes, Linseedes & Foenigreek, adding Bay berries & oyle of Dill, and Puluis Arthreticus, or species Hieræ Pigræ ʒij, giue this glister with the great siring, and put it vp with good force, remembring to adde salt, one small spoonfull thereto. Also you may vse suppositories, and all other helps which are proper in the cure of the Collicke: or a mixture of honey and salt-Peeter, or Niter to anoint the fundament therewith, and vse *Fomentations.* fomentations with sponges, &c. as in the Collicke. Also Phlebotomy may be vsed, especially in young men, and that in Sommer, or warme Countries, especially where the disease commeth of an Apostume, or botch: Purging potions are also good, as *Puluis Arthreticus* ʒj, in wine or beere, or *Aquila Laxativa* 12. graines in a pill or in beere dissolved. Moreouer, Resolution of the matter is to be made with fomentations, with cloth or wollen stupes wet in oyle, wherein Dill, Chammomel, Rew, Hollyhocks, &c. haue bene boyled, and applied very warme. Also Cataplasmes made of Barlymeale, Cummin, Rew, Linseed, Fenigreeke, Dill seeds, Anniseeds, Fennellseeds, Bayberries, and the like, are very conuenient.

Also the patient is to sit in a Bath made of oyle and water, wherein are boyled Cammomell, Mellilot, Dill, *Cataplasmes.* Althea, or Hollyhocke, Rew, Bayberries and the like, are good helps.

Nota Stercus Lupinum is a remedy in the *Illiacke passio*, *A strange medicine.* euen as *album Grecum* is in the *angina*.

Also old Treakell and Mithridate are good helpes for those which cannot hold their meate, and you must giue them to drinke the powder of Thus or Frankensence, and Cummin-seedes in warme oximell.

To conclude these breefe notes, I wish the young Artift in this miserable disease, to try by strong glifters and purges, and euery other good meanes which is warrantable, and not strictly to rest vpon these short instructions, in cases difficult and dangerous.

Colica passio.

The paine described. **C**olica passio is called in English the Collicke, and it is called a passion, because the paine thereof is so great and vehement, that many times the patient desireth rather to die then to liue in that vehement paine. This disease hath his name of a gut called *Colon*, and happeneth very often when the excrements are retained beyond their naturall times and Customes.

How it happeneth.

This infirmity is engendred of ventosity, or winde in the gut *Colon*, and cannot get out, somtimes it proceedeth of collericke humors, and vntemperate heat which drieth vp the ordure, & hindreth the egestion of man: also it cometh sometimes of cold and dry distemperatures with increase of fatnes, making strict the passages of euacuation of the excrements, and by weakening the expulsive faculties. Also this paine proceedeth somtimes from the humors of the stomacke, gathering winde from the liuer and milt, somtimes from the raines of such as haue the stone. Also from an Apostume in the wombe, and somtimes it proceedeth from all the parts of the whole body of man, as in feuers, where the humors are expelled from the vains to the guts, and proceedeth of hot and dry, or cold and dry distemperatures, but neuer of moist, as saith *Dom. Leo.*

Signes

Signes.

THe signes or tokens of this passion are both generall and speciall.

Generall signes are vomiting, lothing of meates, great *Vomiting a signe* paine, retention of the excrements, vnrest, greefe or paine in the fore-part of the belly, constipation so great, that it will goe neither vpward nor downward, the Vrine tinted, &c. *Costiuenes a signe.*

The speciall or proper accidents that doe alwaies accompany the Collicke are continuall thirst, vomiting of cholera, watchings, by lose or chollericke excrements, a straining or wringing paine, though not long enduring, and young persons in the Sommer are most subiect to a loose chollicke: but the tokens or signes of the state of a cold body in old age, are slownesse and lazinesse, much desire after grosse and cold meates, rawnesse, *Nausea*, or queinesse of the stomacke, ready to cast, but cannot, *Pituitosity* or slimy vomits, little thirst, the paine more remisse but longer continuing. Rumbling of the belly, desiring to drinke cold water, or small drinke. Longing after all *Beware of cold drinke.* manner of fruits, and white meates. The paine changing from place to place, and the feces to swimme, being put in water, and very many such like signes too tedious to trouble the Surgeons mate withall at this time. *Auicenna Authority.* faith, that amongst outward signes of this disease, if the patient sicke of the Collicke haue certaine small whelks or pusses arising vpon his belly, about the bignes of a beane, vlcerating and continuing about two daies, it is a signe the patient will die of the disease: Also when the Chollick doth not giue place to Glisters, Foments, Motions, Cataplasmes, and such like good remedies: you may then with *Galen 12. Methodi Medendi,* iudge that biting humors doe *2 Authority.* possesse the tunickles of the guts, but if the disease yeeld or giue way thereto, then the matter of the disease is contained in the cavity or hollownesse of the guts.

The Collicke still continuing with vomiting, cold sweats, often sobbing or the hicket, and not giuing way to remedies administred, is deadly.

A pestilentiall Collicke, or contagious Collicke, doth almost alway kill.

A Collick with feces voyding slimy substances, though an Apostume be in the greatest guts, yet it is curable.

The Collicke proceeding of winde is easily cured. An easie or good breathing, or taking breath is a good signe in the patient that he may be cured, but difficult breathing sheweth the contrary.

The Cure.

Method of the cure.

THe maner of curing the Collicke is effected by renewing and taking away the cause, and then the paine vanisheth: But to remooue the cause, many things are to be put in practise, as preparing the humours euacuation, remission and resolution, all which require some long time, and therefore other meanes are first to be vsed to take away the paine, or at least to mitigate the same with Anodine medicines, and the due application of conuenient helps of warm and moist temperatures, which not helping, you must againe haue recourse to Narcoticall and Stupifying things, which indeed are not to be vsed, but in great extremities to giue the patient some present ease.

Anodines first.

Narcoticall medicines if neede.

Anodine medicines are to be administred so well inwardly as outwardly, as first inwardly, namely in glisters consisting of moist and fat substance, as the decoction of Chamomell, Dill, Linseed, Mellilot, Mallowes, Hollihocke, Farnigreeke, Bayberries, or some of these, with one ounce of the new extract of *Cassia*, and some sugar, with linseed oyle and butter administred. Outwardly, these are to be applied, eyther Vnctions, Cataplasmes, Fomentations, Baths, or some such like conuenient medicines, as time and place best fitteth.

But

But if these should not helpe, then in great extremities, you are to flie yet againe to Narcoticall or stupifying medicines, as namely *Laudanum Paracelsi*, which exceedeth all Narcoticis: or *Philonium Romanum* is also a good medicine: these are only to be vsed in causes proceeding of heat, and neuer of cold causes; for in cold causes that were rather to confirme the disease, and yet in the iudging whether the cause be hot or cold, sometimes a good Artist deceiureth himselfe. If the Collicke come of winde, then you must apply warme resoluing medicines, I meane dissoluing and dispering medicines.

Notes to be considered of the Surgion in beginning the Cure of the Collicke.

First, whilest the meat is yet crude in the gut, I meane before it be digested and turned into excrement, no loosing medicines are to be ministred, but rather a small and spare diet, and in the beginning to begin with mollifying glisters, and then afterwards to proceede with more sharpe and stronger. But before all things, if the patient haue a full stomack, and withall queasie, after a glisters, then a vomit is principally to be administred.

Repletion or ouer-fulnesse, as well as too much fasting is to be auoided. 2

Thirdly, no *Azarick* is to be vsed in any of your medicines for the Collicke, because that cleaueth to the guts, and bringeth most terrible paine and torsions, yet *Stokinus* a learned Germane writer, doth highly extoll the same to be put in Glisters to giue present ease. Beware of *Azarickum*. 3

Fourthly, you must by cordials haue a care to preferue the Liuer, heart, and head, least they be hurt or offended by the vapors, and ouer much heat of the oyntments, ca-

taplafmes, and fomentations which are vsually applied to the parts agreeded.

5
A caueat.

Fiftly, in the beginning ouer vehement warmings are to be auoided, especially, if the Collicke proceed of the dry feces; for thereby they be the more dried.

6
A second caueat.

Sixtly, cold water is to be auoyded, and not any waies to be permitted to be vsed to quench thirst withall, but rather let the patient vse some stewed prunes, Iewlip of Violets, conserues, and such like; or a barley water, with a few drops of oyle of Vitrioll and some licoras are good.

Specificall remedies.

Specificall things that cure the Collicke are very many, as horse-dung drunke in wine, hares dung or hennedung drunke in Oxicratium, where such may be had. Also the pouder of Harts horne, corral, cockell shels burnt, or swines hoopes burnt or Calcined till they be white, and such like, according to the diuersity of the causes. Further in the particular cures of this disease, there are very many things obserued by the learned Phisitians, according to the diuersitie of the causes, which were too much to trouble the Surgeons mate withall at this present, as the ayre, diet, and diuers other good helps to the cure of this greefe, which cannot be obserued at sea, onely fish and water-foules are to be auoided as much as may be.

The Cure.

To cure the Collicke which commeth by meanes of the feces remaining, and being dried vp, which happeneth most commonly at the Sea in long voyages, and especially in hot countries: there are three sundry intentions to be obserued.

The first, to mollifie the feces, and supple the guts.

Secondly, In Euacuating, to discharge the belly.

Thirdly, to remoue or take away the cause of exsiccation, or drying vp of the feces or excrements.

The first is performed with glisters made of common oyle and butter, with the decoction of Mallowes, Violets, Beetes, &c. and by drinking oyle of sweet almonds, or a decoction of *Polypodium*.

The second thing which doth bring forth the mollified feces

feces or excrements is *Cassia fistula*, or *Manna*, or *Diaphe-
nicon* or *Hiera*, or sharpe glisters.

The third intention curatiue, if it could be attained to at Sea, were to remoue first the externall causes of the disease; as ouerwarmed ayre, ouersalted dry meates, and small quantity of foode, fasting, watching, melancholy, and the like, and inwardly to helpe the weakenesse of the expulsive faculty, with *Treacle*, *Mithridate*, *Conserua rosarum*. or the like cordiall helps, helping also the expulsive facultie with glisters and such like good things: For further inward remedies you may vse the foresaid glisters, or halfe a drachme or ʒj. of Sulphur viuum drunke in good warme wine, and the belly well applied with warme clothes helpeth somewhat.

Item, Carawaie seedes made warme in wine, but not boyled therein, being drunke helpeth.

Item, a glistre made of Sope and Hony is a present remedy.

Item, a bagge stuffed with branne, and made very warm sprinkled a little with vineger, and applied to the belly is good.

Item, Goates milke, or other milke, boyled with hony, and applied to the belly with a sponge, or cloth warme, in manner of a foment, healeth the Collicke, and driueth away wormes, and ceaseth the paine.

Item, the gall of a bullocke, Salgemm, Aloes, common oyle, *ana partes equales*, mingle them, and make an oyntment thereof, wherewith annoint the fundament before the fire, that loseth the belly, and bringeth forth the hard feces.

Tenasmus.

T*enesmus* or *Tenasmus*, as *Hypocrates* calleth it in his sixth *Aphorisme* and in the seuenth booke, is a disease, The definition of Tenasmus. intention, or straining about the right gut called *intestinum rectum*, being opilate or stopped, and of some English writers

ters it is called Costiueneffe. This disease as *Galen* saith in his second booke *De methodo medendi* is when a man hath an extraordinary prouocation, lust, or desire, and a vehement straining to go to the stoole, but cannot voide any thing at all, except sometimes some small quantity of slimy matter, which now and then is mixed with bloud, or a bloody substance, and the extraordinary desire of egestion or going to the stoole not ceasing.

The causes of
Tenasmus out-
ward and in-
ward.

Outward as
Colde.

Heat.

Drought.

A corrupt aire.

Bathing in cold
water.

Narcoticall
oyntments.

Inward as
salt humors.

Too much drin-
king of wine.

Nature of *Tenasmus*.

Gal. de causis
& sympt. lib. 3.
Traian. cap. 8.
lib. 6.

The signes of
Tenasmus.

This disease proceedeth of diuers causes and accidents, both outwardly, and inwardly.

Outwardly by cold, comming accidentally to the hinder parts, or arsegut, as the long sitting vpon a cold stone, vpon iron, a bord, vpon the cold ground, or any hard thing, whereby the Sphincture, or round muscle compassing the straight-gut is pressed, or brused. It commeth also by intemperate heate, and drought, and corruptnesse of the aire and weather: sometimes by long bathing in cold water, and sometimes by much vsing narcoticall ointments, and such like. Also inwardly this disease proceedeth of salt biting humors abounding throughout the whole body of man: also by meanes of some hot or colde Impostume, or after a Disenterie, or Fluxe, whereas some chollericke matter remaineth behinde in the right-gut yet vneuacuated. And sometimes it happeneth here in our Countrey, as some English Writers affirme, by little drinking of beere or ale, and sometimes it commeth by drinking too much wine, and by eating of costie meats, and superabundance of choler adust. This disease is of the nature, or disposition of a Disenterie or Fluxe, but that the Disenterie paineth the Patient with grieuous tortions through all the guts, but *Tenasmus* paineth the Patient vually in the right-gut only, as appeareth by *Galen* in his third booke *De causis Simptomat.* And *Traianus* in his vj. Chapter, and viij. booke, who affirmeth the same, saying, *Tenasmus recti intestini est effectus &c.* The signes and tokens of this disease are chiefly to bee knowne by the Patients relation of the temperature of the body, slender diet, and

and egestions, whether it be hard or costive, or else thinne or liquid.

In *Tenasmus* the paine doth not ascend so high as the nauell, but is chiefly felt with heate, pricking, and burning with a desire of egestion in the end of the sphincture, the excrements being of a yellowish coulor in young men (like their starching now adaies) but in old persons the excrements are of a more pituolish slimie and bloudie substance.

*The paine descri-
bed.*

Another signe.

If the disease proceede of an Impostume, the Patient will feele a continuall paine, and the more augmented and grieuous when he gooth to the stoole.

Prognostica.

Tenasmus after a Disenterie is most harde to be cured.

*Necessary obser-
uations.*

Tenasmus in a woman with childe causeth oftentimes abortion, sobbing, yexing, or the hickoke is very pernicious; and betokeneth much drinesse.

Tenasmus long continuing, bringerh the Collica and Illiaca Passions: Sounding and diseases of the head.

Tenasmus is not numbred amongst long nor sharpe diseases, for that it is soone cured, and if the Patient do eate and drinke well there is no danger.

The cure.

Tenasmus is cured by taking away the causes thereof, from whence it doth proceede; as if it come by outward cold, then let there bee applied to the Osepecken, and hippes warme, resoluing fomentations and applications, as bagges of *millium* with salt, being rosted or fried, or sackes with branne sodden in wine, or water, and so applied as hot as may be suffered, and the fundament and parts annointed with oiles of Rew, Lillies, Bayes, *Vnguentum martiatum* and such like: *Alexander* in his 6. Chap. and 8.

*How to cure Te-
nasmus procee-
ding from cold.*

booke saith, *Tenasmus* is cured with fomentes of Fænigreke and the roots of Altheæ, being boiled and iniected into the belly, and also the Patients hinder parts well suffumigated with the same decoction, the Patient being compassed about close with clothes, and so set ouer it, and then the fundament afterward annointed with oyle of Roses, fresh-butter, or goose-grease, with wax dissolved, Beares and Capons-grease and such like.

Item, A fume of Frankenfence and pitch, being cast vpon burning coales, and the Patient set close ouer the fume, helpeth presently.

Item, To giue present ease to that paine, let two bags be filled with wheaten-branne, and steeped in boyling vinegar, and the Patient to sit thereon so hot as may be suffered, and to change them continually, as the one cooleth to take another.

Note that in this disease of *Tenasmus*, no colde things are to be applied at all.

A speciall instruction in administration of a glister for Tenasmus.

Item such glisters as are vsed in this disease should not exceede halfe a pound, and the glister-pipe to be put into the gut not about two fingers bredth at the most in length within the gut.

Concerning exitus, vel progressus, vel prociencia Ani, in English, the falling of the fundament.

THis disease for the most part is accidentall to our nation in hot countries, and that cheefely after or in the time of a great fluxe of bloud or humours, although it is manifest it also happeneth in all countries and places, both to young and olde, but cheefely to children vpon diuers feuerall occasions, which I list not heere to amplifie, hauing no intent to set out my worke in painted phrases, for I would onely arme the Surgeons Mate how to proceede in the cure therof at sea, and yet I know the same will take good effect also at land where that disease happeneth.

Children more subject to this disease then old people.

The Causes.

THe causes of this greefe are too many to bee named, the signe thereof is manifest, that it is a resolution or a relaxation of the muscles of those parts : whereby the gut slippeth or slideth downe lower then the naturall place therof, namely out of the body. Cause of the falling of the fundament.

The cure of this greefe is for the most part short, and likewise if the patient at sea be carefull & goe not out to the shrowdes or Beak-head of the ship to stoole, neither in going force the expulsive vertue of his body ouermuch, it will not easly fall downe againe.

It is cured as followeth, namely at the first going out, use no other remedie then a warme soft clowt and thy hands, and gently returne it into his due place, and let the party after it is reduced, sit on a hot board, or haue a very hot napkin doubled and applied to his fundament, and another to his belly : but whereas this disease for the most

part proceedeth from the fluxes of the belly, in such cases you must proceede to the cure of such fluxes, and that effected, you shall heare no more of this accident, but if it

vsually fall out, it is the more dangerous, then you may proceede as followeth, set the party ouer a close-stoole, and fume the place as warme as hee can suffer it, with a

fume of Thus, masticke, amber, rosin or pitch, or any one of these, and being fumed well and very warme, bestrew the gut fallen downe with *Album Grecum* well powdered, and fine, for this is precious though a homely medicine, but therewith this disease is cured, and many other infirmities also, but there is a great care to bee had to the powdering and well searling of the same, for that it is often full of sharpe peeces of bones very dangerous : I say therefore this being carefully prepared, and applied with warme soft clowts and warmed hands put it vp, and let the party as it were endeauour to draw in his breath in the doing therof, for it will with ease be brought vp : & being

The Cure if it proceed of the fluxes of the belly.

The Cure if it vseth oftent to fall downe.

The putting of it vp.

The Patients help required.

thus put vp into his place it falleth not easily out againe, the same effect hath burned Harts-horne powdered, or any other hard bones burned into white powder, are very good, powder of Gall-apples or Gals is thereto a good medicine strewed on as the former, Pomegranate Pils powdered doth the like, and Balauſties or, Sumach is also good, being powdered and strewed thereon. Also a fomentation very warme of stiptick drying things are good, as for example. R. fresh water, heat and quench peeces of iron or Steele often therein, if it can conueniently be done: if not, only faire water, a conuenient quantity about a quart, boyle therin the quantity of one large Gall, put to it a little Allum about ζ .ij. a little *Succus Acacia* some ζ ss. or lesse, cynamon if it may be had ζ ss. or pomegranate rindes ζ .j. if you haue them, or Balauſties a little, and therewith foment well the part, and after fomentation let it be very gently put vp to his place, but French wine or Aligant were better then water for the fomentation. Further, haue a great care that whatsoeuer you vse by way of fomenting or otherwise, each thing be actually very warme you apply, or they will endanger him. It will likewise not be amisse, if you adde a little good *Aqua vita* or *Rosa solis* to your fomentation after it is boyled, especially if your decoction be water. Beane flowre is also good to strew thereon when you goe to put it vp, but *Album Grecum* is the best thing you can vse, masticke in powder is also a very good medicine to strew thereon, vse as little force, as may be, in putting it vp, and haue euer ready a Chaffendish with fire, when you goe about that worke, to warme clowts, and your hands also. And if you finde it difficult to be reduced, let the pasty be set on his head and hands, with his legges abroad, and it will helpe somewhat, but beware hee stand not so too long, but rather let him rest and beginne againe, or kneeling on his knees and elbowes is also good, onely let him remember that he draw in his breath, as I haue said, for that auaileth much, and let him not seeke to close or draw together his fundament as

little

A Fomentation.

A speciall caution.

The Patients helpe very needfull and profitable to himselfe.

Let the patient beware.

little as he can, till the gut be reduced to his place. If vpon occasion of the fluxe you bee constrained to vse confortatiue or restraining glisters, which also your Laudanum you shall not neede to feare, but it will keep vp: or if these things helpe nothing, I feare he is hardly to be cured, but they haue neuer failed me, and so I conclude to the honor of the Almighty concerning this disease.

*How to prevent
it in the time of
the fluxe afflicting*

Of the Callenture.

THe Callenture by all my experience, or what I can gather from others, is no other thing then a contagious feur, for the most part suddenly assaulting Sea-men, sometimes it is with paroxismes, sometimes continuall, and hath fits hot and colde in some, and that very violent, euen to the losse of senses and life also.

*What the Callen-
ture is.*

The quality of it.

The Causes.

THe causes thereof are diuers, as namely the intemperature of the Climate, or degree of the world causing an euill habit in the bodies of men; when they come into such contagious aires, The euill nutriment the Sailers haue at sea strong obstructions, the abuse of them selues in diet and customes, and diuers other reasons too long to insist vpon.

*The causes
thereof.*

The signes.

The Signes.

TO be breefe, the signes are a strong feur, a generall and sudden distemper oft times, both of body and minde at one instant, or an inclination thereto.

*The curation
whereon is con-
sisteth.*

The Cure.

THe Cure consisteth chiefly in cordials, Alexipharmacs or preseruatues, that the animall, vitall, and na-

turall

rurall parts may be defended from the venomous danger of the disease in euacuation, and in regiment of diet, all these being as sodainely put in practise as time will serue, the disease being sodaine and fierce in it selfe.

Of Cordials.

A Cordiall pot-
ion for the Callen-
ture.

A Present Cordiall medicine fitting to be giuen in the Callenture is Venice Treakell or Mithridate ℥j. or London Treakle, or Diatesseron ℥ss. with Sirupe *Limoniorum* ℥j. Plantane water or faire water, ℥iij. oyle of Vittioill six drops, or so much as to make the drinke tart, and one hower or two houres after giue him another dose thereof, and fourthwith also let him haue suppository or glister giuen him, and so soone as he hath had one stoole therewith, let him bloud reasonable largely if his strength will beare it, let him also haue for his diet no other thing for two or three daies but thin broathes, pannadaes or the like, and if it be thought fit to take it, after the suppository, a glister were not amisse to be giuen him, namely a decoction of march mallow roots in water, adding in the end of the decoction of salniter ℥iiij. of *Species Hiera* ℥ij. *Oleum Sambuca* ℥ij. these will coole him well and cleanse him.

And if further neede of purging be, giue him a dose of *Aquilla Laxativa*, or *Aquilla vita*, a dose, which in this disease hath been approoued very good.

The *Aquilla Laxativa* is vsually giuen in Plantane or faire water ℥iij. with syrupe of violets or lemmons ℥j. the *Aquilla vita* with *Conserua Rosarum*, with *Diatesseron*, *Liquorice-powder* or alone. If you see these courses reasonably put in practise, doe not giue content, I meane the body being open, then in the name of God giue him a dose of *Laudanum*, you shall finde it often to procure perfect health without further help. For his drinke let him haue a decoction of French or common Barley, whereunto so much Liquorice, or *Succus Liquorice* may be added, as to make it of a gratefull taste, as also for the smell, a small quantity

His ordinary
drinke what it
must be, and of
what it is made.

quantity of Rose or other vineger, & Rose water a little, & therto so much oyle of Vitriol, as to giue it a taste somwhat tart, but not too much : Sirupe or iuyce of lemmons is also very fitting to bee put thereto if it bee to bee had in any plenty. But let mee aduise the Surgeons Mate in all the precedent courses, that he vse good discretion and moderation, for ouer purging, bleeding, and much thin diet will be very dangerous at sea, and will surely turne your patient into the Scuruy : For note this for a generall rule, that almost euery sicknesse at sea ends in the Scuruy, and the Scuruy oft times vnclades her selfe by a flux with death attending thereon, without Gods mercy, and the Christian commiseration, diligence and skilfull hand of the Surgeons Mate, which that he may the better be enabled in all difficult cases to practise and performe his duty, the God of all glory assist him with his grace. Amen.

Good Surgeon take notice.

Two principall obseruations.

1

2

By Gods mercy miseries are prevented, and are in curing blessed.

A



A
TREATISE OF SALT
 in generall : And first of the
Antiquitie thereof.

*Salt sure in ve-
 getables.*



*Health from salt
 by Gods prou-
 dence.*

*Scriptures.
 testifie.
 The sea and all
 creatures com-
 taine salt.*

It was created with the world in the beginning, for that it is easie to be prooued, that neither hearbe, bud, nor tree whatsoeuer groweth, which containeth not in it selfe a proper and peculiar Salt, which is easily and apparently by art to be separated from the other substances thereof, and through the wonderfull prouidence of our Almighty Creatour, each salt hath some needefull vertue contained in it for the benefit of his creatures. A further testimony of his antiquity, the sea which tooke his beginning, as Scriptures testifie, before mankinde, doth produce the substance thereof being wholly salt. And not onely the sea, but also all other creatures of God whatsoeuer vnder the whole heauens, whether they doe consist of Animall, Vegetable or Minerall parts, cannot, nor euer did subsist without a naturall inbred salt in them, whose nourishment and increase proceedeth from the earth, water, or aire, where the sayd creature breedeth and groweth. Therefore since it chal- lengeth a place with the most ancient and first creation of all things, I neede vse no more demonstrations, but conclude that the Antiquitie thereof, is as vndeniable, and as cleere, as the sunne-shine is at mid-day : thus much of the Antiquitie thereof.

Of the kindes and difference of Salt.

TO intreat of all the kindes and differences of Salt, is a worke so difficult and long, that no man whatsoever in the whole time of this short life, can make sufficient relation thereof, wherefore to auoid tediousnes, I will take a shorter course: namely, I meane to doe something therein, and leaue the rest for others of better capacity; that shall come after. Note therefore that there are three kindes of Salts in generall, to wit, animall Salt, vegetable Salt, and minerall Salt, and ere I digresse or goe any further, let me interpret my selfe in plaine tearmes, to young practitioners in Art, whom alone I desire to benefit.

*Prisious to
write of all salts*

*Three kinds of
salt.*

The animall salt is vnderstood to be that salt which proceedeth from creatures that beare life, and haue sence and feeling, or moouing, whatsoever, vnder which are comprehended all beasts, fish, foule, and worme, &c. vnder the name of vegetable salts, are comprehended the salts of trees and hearbs, and whatsoever else may grow by sowing or planting, or any other industry of man, as well the seed as the fruit, or the plant it selfe, or any part thereof. And vnder the name of minerall salt is comprehended the salts of all mettals, as of *Saturne, Iupiter, Mars, Sol, Venus, Mercurius* or *Lana*: as also the salts of all stones, with also all earths and their iuices and extractions, as likewise all other Minerall and Terrestrial salts whatsoever, without name.

*The three salts
explained.*

Thus much in breefe for explaining the three principall kinds of Salts, each of which haue a three-fold seuerall substance contained in them, viz: *A volatile salt*, a fixed salt, and a *Caput mortuum*, named also *Terra Damnata*, otherwise it may be tearmed to containe a Flegme, a spirit, an oyle, which againe is called, *Sal, Sulphur*, and *Mercury*, each deuidable, plainly, and easily by Art: Some may heere object, they will draw more then three substances, each being a good medicine from any one subiect, eyther

Animall, Vegetable, or Minerall, as for an instance from *Mercury*, you may extract infinite severall medicines, inwardly, & outwardly serviceable, as namely you may haue from *Mercury* Laxatiue, Vomitiue, Diaphoretick, Diaureticke, cordiall, preferuatiue, and sundry other needfull medicines to be ministred with great safety & comfort to the diseased, as elsewhere of *Mercury* is noted: which speech may seem very strange to some that all these, yea & many more varieties & diuersities are found in any one mineral: but though one substance make many medicines, yet it confoundeth nothing the *tria principia*, for euery medicine is not one principall, neither is there any principall tied to make but one medicine. But to returne being digressed, I say the kinds of mineral salts vsed at tables, & for seasoning meates, are to be esteemed three in number: one kinde is the Bay or Sea salt, dried meerey from salt sea-water by the heat of the Sunne. The second sort is that salt which we haue from the Sea coast, or from salt springs at home, made by decoction. The third is the salt that groweth concrete, hard and pure in the bowels of the earth, such is the *Sal Gemm*, and this last is held the best, both in meate and medicine, it is in colour like Christall transparent, and groweth in great quantity in Polonia, neere the City of *Cracouia*.

Answer.

Salts good in meates are of three sorts.

Of the necessity of salt, and of the generall vtilities thereof.

The necessity of Salts in all things.

NO one thing which the Almighty Creator hath made for mans vse, excelleth Salt: as well for the sundry and most necessary vses it hath, as also for the abundant vertues thereof, without the which, nothing which is created vnder the sunne, as is said, could subsist in his kinde, beauty or vigor, as for example, man the excellentest of Gods creatures, without salt presently putrieth, or at the least falleth into some extreame disease, yea a small distemper in the Animal salt of man is able to kill the strongest man, which the simplest may in his owne reason comprehend

Example.

hend and know. And who liueth which at some time or other hath not tasted his owne blood, eyther from his gums or his nose bleeding, or otherwise, whereby he is able to affirme the same blood to be salt. I thinke none will deny it, but if any will be so simple or obstinate, then let him taste his owne vrine, and there questionles hee need not doubt to finde it salt: but without contradiction, the whole masse of mans body is full of salt, and if thou wilt not by all this reason be perswaded to beleue it, then search artificially, and thou shalt finde, yea two kindes of salt in mans blood, and so in all other creatures which beare life and haue blood as well as man, namely a Volatiue salt, and a fixed salt, which salt I say wanting in the body, that liuing creature which wanteth it presently putrieth. Some also wee see that by a salt rheume in their eyes lose their sights, some by a sharpe saltnes in the vrine, dangerous accidents ensue: some fall into the Scuruy, some haue the dropie, some the Leprosie, with infinite other the like offences hapning by the distemper or want of the Animall salt: the examples are very common: *Nihil sale & sole corporibus hominum vtilius*, saith *Paracelsus*; nothing is more profitable for mans body, then the Sunne and salt. It is the most precious Balsam for mans life in health, it maintaineth health and keepeth mans foode from putrefaction in sicknesse, sores and aches, few medicines to be compared to it: Minerall salt being brought to an examen in the fire, first from it is by Art exhausted a thin Minerall Phlegma, called the Mercury or fleagme therof: which past, then there ariseth a most fragrant spirit which openeth minerall bodies, and breaketh vp gold and siluer to make them potable, or otherwise according to the will of the discreet Artift, in which spirits is comprehended the cheefe medicine: the residence whereof, containeth the fixed salt, & the feces thereof: the feces are meere-ly good for no vse at all, that I know, and therefore of chymists are called *Terra Damnata*. *Paracelsus* speaking of the necessary vses of common minerall salt, affirmeth it to be

*How to discern
salt in man.*

*Certaine evils be-
falling man want-
ing salt.*

*Salt preserveth
from putrefactio.*

Salt helpeth digestion, and comforteth.

Salt the Balsamum of the earth.

the true correcter of all kinds of meates, and saith further, that meat, though being of meane nutriment, yet if it bee well salted, nourisheth much: for hee is of opinion, that whatsoeuer meat is eyther eaten without salt, or but meanly salted, turneth for the most part to the offence of man, and breedeth diseases, as the falling sicknesse and other great greefes: for, saith he, salt mightily helpeth digestion, and concoction, and likewise comforteth all the faculties of mans body, it is the Balsam of the earth, wherby mens bodies are preserued aliue, and so of all creatures which conteyne bloud in them, yea and all insensible Creatures also, as Vegetables and Mineralls haue their peculiar salt, which keepeth them in their vigor & strength from common putrefaction. *Iosephus Quercitanus* affirmeth salt to be a spur to all medicines, both outward and inward, with which it is mixed, stirring them vp and quickning them, the better to performe their offices, and the longer to retaine their vertues, by preseruing them from outward putrefaction of the ayre.

Temperature of salt in generall.

The temperamēt of common salt.

Diuers salts diuersly qualified.

Common salt by the most opinions of the learned writers is hot and dry, some affirme in the second degree, some in the third, this being spoken concerning common salt as it is vsed in meat and medicine without any further preparation: but let no man attribute to all salts one temperament, which I suppose none which is discreet will, because then he should mistake himselfe; for without al contradiction, no temperature can be named, but some salt may easily be proued of the same temperature, wherefore it is said concerning ordinary salts for meat vsed, whether they come from the Sea, or from salt water by decoction, or from the ground without mans Art as salt Gemm doth, or from the salt springs within the land, as our Worcester shire salt doth: yet all those haue no manifest differences in their temperature, but may be said to be hot and dry,

and

and yet according to the strength of them, they may one exceed another more or lesse in degree.

But salt-Peeter which is of excellent vse for medicine, as also for very many needfull occasions otherwise, whose substance and qualities are wonderfull being considered, yet it is apparent that the temperament thereof is cold by the effects, for it doth coole the violent boyling of the blood, no otherwise then if a man should coole fire with water, and yet his chiefest substance is spirituall, volatile, and combustibile, if it be pure: but in truth all mineralls shew themselves in operation to be specificall, and not truly to be distinguished by their heat or cold, & as for the spirit of common salt, the medicinall effects thereof are cooling the blood, quenching thirst, corroborating and refreshing the stomack, &c. the taste thereof being almost like the oyle of Vitrioll, or rather like good iuice of Lemons.

The quality of Salt-peeter.

The substance of Salt-peeter.

Further, the salts of animal and vegetable creatures may very well be said to haue their seuerall temperaments and differences, each according to his owne kinde, as the salt of wormwood is esteemed hot and dry like the hearb, and so of many other hearbs in like manner may be vnderstood.

Somewhat of the healing vertues of common Salt.

Common sea salt, boyled in the strongest beere to the consumption of three parts of the same beere and being made salt as Brine, is an excellent bath to ease the pains of the gout, as my selfe haue proued often. It is also good to cure the *Serpigo* of the hands, Tettors of hard curation. *Paracelsus* speaking of the vertues of salt, saith as followeth. All those which are vexed with any disease, proceeding of grosse crudity, or vnnaturall humidity, as rheumes, itch, scurfe, ring-worms, or the like noy some greefes: let them make a bath of common sea salt, and strong beere boyled together to a third part, and as warme as they can possible indure it, sit in it and sweate therein, and after go to a warm

Good for the Gout.

Serpigo. Tettors.

Good for cold aches.

The body to be purged before it be with a sale bath bathed.

The vertues of this Lixinium.

The Causticke stone is made of salt.

bed and sweat againe, and doing so sundry times, they shall feele helpe thereby. I haue had credit by it when diuers greater medicines haue failed me, especially in the paines of the gout and other aches, I haue done much good with it. And further, it is so harmles a thing, that none need to feare the vse thereof: whereas many other kindes of bathing, although they be good in one kind, yet hurt in another, but this is meereley harmelesse to any, prouided withall, before the vse of this bath, a due preparation and purgation of the body be thought vpon.

Moreouer, this is an ordinary *Lixinium*, made by expert Chirurgions, for the healing of Vlcers, which is Mundificatiue, Absterfiue, Discussiue, and very Sanatiue, performing much in Chirurgery, the chiefe ingrediencies whereof is vegetable and minerall salts, made by decoction with vulnerary herbes in faire water to a iust consistence, this *Lixinium* in Tumors, Vlcers, Fractures, Dislocations, as also in great Contusions, Obstructions, Gangrenes, and many other like infirmities, is a most sure and ready medicine, the description whereof is set downe in the cure of Fractures.

Also the Causticke stone, called commonly *Lapis Infernalis*, is no other thing, then meereley a Vegetable salt the vertues and making wherof, is not proper in this place to be spoken of, but shall in an other place be mentioned. Thus much at this time concerning common salt.

*Of Vitrioll or Copperas in Generall: And first
what is Vitrioll.*

Vitriole, called in Latine, *Calcanthum*, in English Copperas or Vitriole: but more commonly called Copperas, is a minerall salt, which for the worth and Vertues thereof doth farre excell many other kinds of salts, so that not without great reason, that worthy *Theophrastus Paracelsus*

selfus, who had truly anatomized that salt, affirmed and often repeated, that the fourth part of Philicke was contained in this Minerall salt, from whence the same author also, not vnjustly, doth compare it to wood, of which diuers formes may be formed, and diuers instruments also may be made for diuers operations and effects: for out of this salt many substances may be extracted and prepared, and many good medicines may be compounded, quite contrary in operation, and vtterly disagreeing in effects from each other, as for example out of this Minerall salt, medicines of great efficacy may be made, as well in purging, as also sudoriferous or diaphoreticks, Cordialls, Anodines, Narcotick, Stupefactiue, Stipticke, Corrosiue, Abstersiue, Repercussiue, Mundificatiue, and Sanatiue medicines, as also against the Epilepsie, or falling sicknesse and suffocations of the Matrix, good medicines are to be prepared thereof, and how these or some of them may be made by Art, and of their vertues, as time shall serue by Gods helpe I haue determined briefly to declare hereafter.

*A comparison
between Copperas
and wood.*

*The diuers vertues
of Copperas
both inward and
outward.*

But I confesse I am not able to discover the fourth part of the great vertues of this worthy salt, for I daily meet with some new medicine therein worth the noting.

Of the different kindes of Vitrioll.

Vitriole or Copperas we may haue heere in England of fixe, or at the least of siue kindes, namely, *Vitriolum veneris*, or Copperas made of Copper, which in diseases of the head farre exceedeth others, as writers affirme, and this kinde may easily be prepared and cheape, as hereafter shall beset downe.

The next thereto in vertue is that kinde of Copperas which growes in Hungaria, which to my knowledgewee cannot well haue in England, though some will affirme they haue of it.

The third sort of Copperas that is praised is the Roman Vitrioll or Copperas, in place whereof we doe buy a kinde
of

of blew Copperas in London, which is not the true Roman Vitrioll.

The fourth kinde is brought from Gosler, a Towne in Germany neere to the City of Brunwicke.

The fifth kinde is commonly brought from Dansk and is somewhat yellowish.

The sixth and last, or worst, is our owne common English Copperas. These are all the sorts ordinarily to be bought.

Copperas of diuers colours.

Though indeed many waies, and of many colours copperas may be made, yea and of many substances, as well Animall Vegetable, as Mineral, which if time would serue, and that it were to the purpose, should be further shewed, but to be short, the Copperas I would chuse for my vse, is that which commeth from Gosler in Germany, it is to be had in London, and is not dear, and is sufficiently good to draw a spirit or oyle from, or to make any medicine for inward vses, but for outward ordinary vses, the common sort of Copperas will serue well, and so it will doe reasonable well for oyle, but not yeeld so much.

*What Copperas
for outward
vses best.*

Note that the best Coppras as is said, is made of Copper, or of the Minerall of Copper. Note further that all copper and brasie will wholly be conuerted into Coppras, yea and turne againe into his owne first substance, namely into copper or brasie againe, though with losse. Also iron and siluer will make good Coppras, so will diuers sorts of stones and earths be conuerted into good Coppras, and springs neere Copper mines, they doe make Coppras of, much after the manner that salt peeter is made.

*The way to make Vitriolum Veneris, or Coppras of Copper,
is as followeth.*

R. Thin plates, or rather filings of Copper, what quantity you please, and Brimstone of each a like quantity, powder the Brimstone, and mixe it with the Copper, put these into an earthen pan vnglazed, and place them in a Char-

a Char-cole fire in a Chimny, and let them gently heat together till the Brimstone take fire. Then with an iron stirre it a little to and fro till all the brimstone bee consumed: then take it from the fire, and being cold, cast it into a gallon or lesse quantity of faire water, and it will make the water greene, and in taste like Coppras, poure off that greene water, filter and keepe it, and set the same Copper to be made drie againe on the fire, which done, mixe it with more Brimstone, and burne it, and quench it as before, continuing such worke, till all the copper bee consumed and turned into a pleasant blew or greene water: then mixe and boyle the waters till halfe or more be consumed, and set them to coole, and being cold, if it be sufficiently boyled, you shall finde Coppras therein; if not, boyle it more, and the Coppras will appeare: then take away the said Coppras which you finde, and lay it to dry, and boile the remainer of the water againe, and there will be more Coppras: take still the Coppras each time out, laying it to dry, and doing so till all be made into Coppras. This is the best kinde of Coppras, it is in colour of a pleasant blew, and is easily to be made, and will yeeld a good quantity, namely one pound of copper, if it be artificially prepared, will make three pounds of Coppras.

A note of the true height of the decoction.

Of Phlegma Vitriole, or of the first water drawne from Coppras.

Phlegma Vitrioli is made as followeth: R. Coppras, put it into an alimbecke, and place it according to Art in the highest degree of B. M. namely in a boyling water, drawing thereby from it all the humidity which by B. M. will be exhausted, provided you fill your alimbecke but 2. third parts full of Coppras, when ye put it to distill. This liquor as *Angelus Salus* a late Italian writer affirmeth, is good against paines of the head, proceeding of heat, namely the dose being two dragmes taken fasting for certaine daies together. It swageth also the burning and boyling

The rules in this worke.

The vertues of Phlegma Vitrioli

of the bloud. It strengtheneth all the bowels. It confirmeth the braine weakened with superfluous heat by the daily vse thereof in the springtime, the stomacke being purged a little before. Also it maketh a moist braine temperate. This first medicine of Coppras was by the Auncients not knowne: my selfe I must confesse haue made no great vse of this medicine, onely I haue vsed it as a cooling water against the heat of the stomacke, and sometimes haue found it good, as also to foment warme with it for any sudden inflammation in any outward part of the body, due Euacuations first considered of. The said Author ascribeth many more vertues to this first Phlegma, or water of Coppras, which, for that I would be loth to wast time, I will not trouble the Reader with.

*The Author his
experience
thereof.*

*Of the preparation of the second water of Vitrioll, commonly
called Spirit of Vitrioll.*

THis first recited water being well rectified, separated, and kept apart: then take the glasse, Alembeck mentioned, containing the Vitrioll, from out of the B. M. and place it in Arena, or a furnace with sand according to Art, the Vitrioll within being first made into fine powder, and distill it therein so long till all the rest of the Humidity shall be drawn from it which the B. M. had not force to exhale. This second water, you shall perceiue to be a cleere and odoriferous water, onely remember that thou force not the water ouer strongly, but doe it by a gentle fire.

*Rules in the
worke.*

The effects.

This liquor is good to purge the reynes: it appeaseth inward fretting and gnawing paines, taking one drachme thereof in the morning fasting with flesh broth.

It also causeth store of vrine, & moderately prouoketh sweat. It ceaseth the inflammations proceeding of blows or stripes taken in warme broth, & mittigateth the paine thereof, but if your fire be too strong, your liquor wil come ouer so strong, that your dose must not exceed ℥j, at the most: wherfore be wary thereof, for a good medicine euill hand-

A Caution.

led

led, may do much hurt, and so will this if you want iudgment to vse it. In times past they were wont to calcine Vitrioll till it was red, whereby it was depriued, not onely of the first, but also of this his second moist and most spiritfull substance, but that was vsed by them cheefely, when only they intended to prepare the sharpest spirit, or strongest oyle of Vitrioll, which strong oyle of Vitrioll hath all the vertues heereafter recited and many more.

How the Ancients prepared this Vitriol for the spirit.

The vertues of the strongest oyle of Vitrioll.

IT helpeth the infirmities of the lights, with the water of fennell or fumitory, It cutteth away the melancholly humors from the stomack, with Balm-water, and comforteth the stomack after a wonderfull maner, & doth defend the whole body from inward apostumes & inflâinations, & therefore it is vsed with good successe in the pleuresie, as also in vulnerarie drinks it is approoued good, for it attenuateth the blood wonderfully, and defendeth the parts greeued from feare of Gangrene or putrefaction of the blood. It conglutinateth ruptures as well of bones as veines, and doth exceedingly corroborate and comfort all the parts of mans body, and may well bee numbred as a principall amongst cordiall medicines. It is also a very good medicine not onely in preuenting the Scuruy taken inwardly, but also in the cure of the Scuruy many wayes, both inwardly taken with any comfortable wine, or with beere for neede, or to make a Beuerage therewith, and daily to vse it in small quantity, namely foure drops for a dose. In the Callenture it excelleth all other medicines taken in Plantane, Sorrell, or any other good cooling water, or onely in faire water. Other conuenient courses iudiciously held, as namely to procure to the party by suppository, glister or potion some looseness of body, with also phlebotomie in due season, and quantity according to iudgement.

It helpeth the Scuruy.

Callenture.

A Caution.

And likewise obseruing that a dose of *Laudanum* is in

The gummes o-
uergrowen.

such cases a fit helpe, laying the party to rest : a loosenesse of belly, I say, first had by nature or art. Moreouer, for the ouergrowings of the gummes in the Scuruy, Vitrioll or Coperas hath no fellow, namely, a strong decoction of Vitrioll, with a little *mell*, or *mell'rosarum*, and the gums after they are let blood well rubbed therewith very hot, helpeth well. Also if a stronger lotion bee required, you may touch the rotten gummes warily once with the oyle it selfe, but beware you touch not the whole skinne with the oyle recited or strong spirit, for if you onely but rubbe the teeth therewith, it is hurtfull, for it will offend and much decay them, although I confesse it maketh them white, I haue had the experience thereof, as well by making blaekc teeth white, as also in lotions for the teeth : wherefore I know that the much vse thereof consumeth the teeth, in vlcérations of the throat or mouth that resist ordinary cure, by other good lotions vsual, touch the vlcera- ted part warily but once therewith, and then the vlcera- tions wil heale very fast afterwards with any ordinary medi- cines & helps, remēbring as cause shall require, to vse due euacuations or phlebotomy. Also this strong spirit is good for inflammations of the throat, namely against *Squinan- cis* or *Angina* vsed certaine drops in a fit Gargarisme or Lotion, namely, to make it somewhat sower, and then gargarize warme therewith, for it mightily quencheth in- flammations, and tempereth well the blood, and being likewise a little thereof giuen to drinke, namely, six drops in such a case, it is much the better, alwayes remembring that all such diseases require loosenesse of the belly, and sometimes phlebotomie.

A Caution.

Vlcerations of
the mouth and
throat.

A Caution.

Inflammations
of the throat.

A Caution.

Wcers and fis-
sula's.

Purgings medi-
cines.

Moreouer in vlcers and fissula's scarce a better medi- cine is found, to enlarge a strict orifice, remooue a callow, or truly to correct and prepare any inusterate vlcer to good healing, onely by touching it with lint on the end of a probe, thereby putting the medicine to the place where the cause is, This strong tart spirit or oyle of Vitrioll is al- most generally in all purgatiue medicines, a notable cor- rectiue,

rectiue, and, as it were, a good helpe to them to doe their office, for it comforteth the whole body, and it giueth a gratefull taste almost to any medicine.

It is also good to a weake stomacke oppressed with phlegme or slime, and helpeth appetite taken in conserue of roses, it hath infinite other vertues too long heere to relate, and indeede aboue my reach to search out. *Abid appetite.*

There is no medicine more precious in pestilentiall feuers, then this strong oyle or spirit is, my selfe haue often vsed it to others in that case, and taken it my selfe with good successe. *Pestilentiall feuers.*

The true and vtmost dose is onely so much thereof, as may make the vehicle or medicine wherein you giue it somewhat sower, but not too tart, for no man can say iustly, giue five, six or seuen drops, for that one sort is five times stronger then another, but when either your purge or other medicine is ready to be administred, adde certain drops thereof to alter onely verie little, the taste sower like, but in the Callenture, strong feuers, or pestilentiall feuers, a greater dose may well be taken, according to discretion and iudgement. but take this caueat for a fare-well in the vse thereof: note that if you put it into a medicine liquid, it will sinke downe to the bottome, so that when you giue it shake it, otherwise you may leaue the most of it in the glasse behind, and when you mix it with a quantitie of Barlie water or Iulep, whereof you intend to make manie doses, deceiue not your selfe, for if you neuer shake and stirre it, the last dose will be vnreasonable to be taken, and dangerous.

Of white Coperas.

WHite Coperas is easilie made of other kinds of coperas, it is generallie called Vitriol, or white Vitriol in English, as if it were worthy a higher or more particular name, or respect, when in truth, as white waxe is made of yellow wax, by the bleaking it in the aire, and washing it oft, *Whereof and how it is made.*

White Coperas
weaker then
greene.

oft, so is white Coperas made of greene Coperas, and is thereby, in my conceit, the weaker, onely the superfluous humiditie is thereby euaporated, and it begetteth a new kinde and shape, in all lotions it may serue in place of the other kindes of coperas, but to draw spirits from, it is weaker then anie other coperas that I know.

The vertues
therof, for the
dies excell any
other medicine.

The cheefe vses I haue made thereof, is for Collyriums or Lotions for the infirmities of the eies, namelie, against itchings, akings, smartings, defluctions, and ophthalmia's of the eies, wherein I finde it to exceede either *Lapis Calaminarius*, *Tutia*, or *Camphire*. The salt thereof maketh also a singular vomitiue medicine, which I first learned out of the daily practise of that worthie and famous Physician *D^r. Peter Turner* dwelling in *S^t. Hellens*, who highly commended it to mee, and I haue found it worthy his commendations in many great infirmities, the dose is from ℥ss. to ʒss. and to ʒij. it is safely giuen.

The effects of
the Salt are for
the taking sick-
nesse.

It may verie well bee taken in Betony-water with sugar, or in want thereof, in faire water with Rose-water, one spoonefull. It is good against the falling sicknesse, and in diuers occasions of purging the head, also in feuers proceeding of crude and vndigested humours. It prouoketh appetite. One receipt of my experience for outward infirmities of the eyes, I will heere bestow vpon the Surgeons Mate made of white coperas, which is as followeth. R.

Feuers.

Stomach.

A receit for the
eies ill-affected.

Vitriolum Album in powder ʒj. one new laid egge, or found egge, boile the egge hard, shell it, and cleaue it through, and take out the yolke, and in place thereof put the powder of coperas mentioned, and let it so remaine closed together two houres or more, then put it into a cleane soft ragge, being still so closed together, and straine it hard, and a water will come out which is greene in colour, keepe it in a glasse close stopped, and when occasion is, drop one drop or two at once into the greued eye. It is good in many infirmities of the eyes, and it will keepe seuen yeeres without putrifying. It cureth all itchings smartings, immoderate rheumes, the Ophthalmia's in their beginnings,

beginnings, with many other infirmities happening to the eyes, and it strengthneth well the sight. Thus much for this time of white Vitrioll or Coperas.

Of Burnt Vitrioll.

THis is made as burnt allum is, of any sort of coperas, and is of great vse in Surgerie, namely, to abate spongie flesh in vlcers, and also in all restrictiue powder for staying of fluxes, and it helpeth well with other simples sitting to siccatrize, and also in Lotions and Gargariſmes, as is sayd, it is of good vse.

The vse of it.

Of Liquor, or rather Mel Vitrioli.

THis Liquour, or rather honey prepared from Coperas, so called, because it is in thicknes and colour not vnlike honey; It is an excellent remediē against any lachrimous or weeping vlcers, or fistula's, to stay defluxions of humours in them, for it is very astringent, and doth well fortifie a weake member, it is made of calcined Vitriol infused in spirit of wine, and the tincture of the coperas thereby drawn out, and then the spirit of wine euaporated *per B. M.* and so it is excellent for to cure rotten gums or any purred or corrasie vlcers of the throat or mouth, or elſew here, and hath many other speciall vertues, which when I set down the preparation and vse of my other chemicall medicines shall be further handled.

The vertue.

Whereof it is made.

Other Effects.

Of Colkethor or Dead-head.

FOr want of time I heere come to the last medicine of Vitrioll ere I haue touched the fourth part. This Colkethor is of two different kindes, the one is from the feces of *Aqua fortis*, and the other from coperas, after the strong oyle is extracted from it. The first is most in vse amongst Surgeons, and indeede is most forcible, because

The kindes.

cause

The force or effect of Colkehor.

cause therein is a great part of the fixed salt of Salt-peeter, and of Allum mixed with the coperas, it is a medicine astringent by reason of the coperas and allum, and absterfue by reason of the Salt-peeter, and therefore it is good for to prepare stubborne vlcers to siccarize. Thus for this time I conclude of Coperas.

Sal Absinthij.

The dose for a pestilent fever.

SALT of worme-wood is a cordiall medicine, and is very necessary in the Surgeons chest. It is very good against the heat of a burning & contagious feur, ℞. thereof taken in a decoction of Sentaury best, or in Plantane, or faire water, to which for to amend the taste, you may adde sugar a little: giue the party at the least three doses of the medicine at feuerall times, and sweat thereon, you shall finde it an excellent helpe also in the dropsie or swellings of the Scuruy, ℞. thereof giuen first and last on a peece of tosted bread for fise daies together.

The dose for the Dropsie.

It is good and fit to adde a few graines thereof into e- uery cordiall, for it is Diaphoreticke, Diaureticke and partly Laxatiue. It is a very good medicine against a quotidian feur, ℞. thereof taken in Sentaury-water, or rather in a decoction of Sentaury & sweat thereon. In all stop- ping of vrine, it is a sure good medicine taken in wine. Thus much for this time for *Sal Absinthij*.

The quality.

The dose for a Quotidian.

Good for stop- ping of the vri- nal passages.

Sal Gemma.

SEARCH in the differences and kindes of common Salt for *Sal Gemma*.

Sal Natri

The purity.

The Nature.

IS the Christalline salt purified from grosse Salt-peeter known to be pure by that it doth containe no common salt therein, being also wholly combustible of tempera- ment

ment it is either hot or coole, as is plainly seene by his office and vertue: doe I say vertue? yea and vice both, I may say, for in truth for wounding and killing salt goeth beyond *Mercury*, this is the dangerous part of gun-powder, which giueth it the force of piercing to the heart, which God deliuer all Christians from feeling it, and accursed be that hellish Germane Monke which taught it first in Europe. This or Salt niter is either animall or vegetable, or both, and may also not vnfitly bee tearmed minerall, growing in mines, and it is euery where, for euery creature liuing may bee sayd to haue a part thereof: man and beast, I am sure hath a great part of it. It is a most medicinal subiect as any is in the world, and no man can liue without it, for our bloud and vrine hath it in it, yea, and our very excrements are mixed therewith, it is also in caues, in mountaines and plaines, and where not?

Germane Monkes Europes Doctors. Sal Nitri of two sorts.

The spacious Kingdome of Sal Nitri.

But to leaue such discourse, whereto I haue not appointed this little time, I say, *Sal niter* in the Surgeons chest is a worthy medicine, and the purer it is, the better it is for all vses: Touching the inward vses thereof, it is good against Hemoragia, or bleeding of a veine, whether it bee by the nose, or any inward vaine of the body, taken ζj . dissolved in Plantane or faire water.

The inward vertues of Sal Nitri. The dose for Hemoragie.

In the Callenture it is approued good to coole the boyling of the bloud taken as afore sayd, the dose for a neede, if the heat bee great, may bee giuen euery foure houres, or the party may haue a barley water rather made, wherin two dragmes or more may be dissolved to drinke at will, it will not offend him, onely if hee take too great a dose at once it may cause him to vomit, but it will not hurt him. It is the best thing I doe know for the furring of the mouth and the throat in feurs, the place gently washed therewith dissolved in water, it presently bringeth away all the whitenesse & furring, without offence. It is not vngratefull of taste: but so soone as you haue taken such furring away, I aduise that you haue readie some gentle sanative lotion to iniect, to take away the acrimonie thereof,

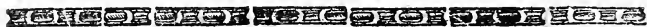
Helpeth the Callenture.

The dose.

Cleanseth the mouth furred, used in water.

The mouth cleansed a Lotion needfull.

for it is abſtergent, and yet without violence or danger, you may uſe therefore the ordinary lotion one part, faire water two parts, and ſo iniect to cleaſe the mouth after the uſe thereof. I haue expreſſed other uſes of *Sal Niter* proper in the cure of the Scuruy, to which I referre the Reader.



CERTAIN E PLAINE
Verſes for the uſe of young Sur-
geons by the Author gathered,
In praiſe of Salt.

SALT with the world did beginne,
whoſe end exceedeth time:
In it lie hidden ſecrets rare,
which no tongue can define.

Our Sauour his Diſciples deere,
to ſalt did oft allude:
Who by their bleſſed voices fill'd
the earth with ſpirituall food.

Salt many iewels farre exceeds,
ſalt guideth health and life:
Salt Author is of all increaſe,
'gainſt ſalt there is no ſtrife.

Salt and his force, his place, his time,
his power in life and death:
His choyce, his change, his actions ſtra
admire we may on earth.

What liuing creature can want salt,
what plant or tree may grow :
What mettall perfect doth endure
if salt it doe forgoe.

His feuerall kindes are infinite,
his vertues without number :
His quantitie so large in all,
as to man seemes a wonder.

The aire, the earth, the Ocean deepe,
with salt are seasoned so :
As wanting it fowle, beast, nor fish,
nor man could breath I know,

And for one instance doe but note,
in bloud what taste you finde :
Note vrine eke how salt it is,
if it digresse not kinde.

Yea sweat and spittle though they be,
but excrements indeede,
Haue store of salt, which thing we find
by nature so decreed.

The earth produceth salt in all
her creatures more and lesse :
Yet different each in some degree,
experience doth confesse.

Both hot and colde, yea moist and dry,
is salt in temperament :
Yea volatile and fix also
obseruing each intent.

Some fowre, some sweet, some sharp is found,
some bitter eke in taste :

Yea liquid, solid, corrasive,
and purging salt thou hast.

All colours strange in salt are seene,
true healing therein stands:
And poyson strong abounds in salt,
salt looseth mettals bands.

The spirit of salt makes liquid *Sol*,
and *Luna* at thy will:
That potable they may be wrought,
a worke of worth and skill.

By salt are cured many greefes,
though hidden and profound,
Yet the exceeding vse thereof,
is certainly vnfound.

Salt doth preserue the food of men,
that trauell farre by sea,
And seasoneth well our meats at home,
which else would soone decay.

Of gaine that doth thereby arise,
all people haue a part:
It maketh barren land beare fruit,
which cheeres the Plow-mans heart.

The Marchant is enricht thereby,
and all that fish in lakes:
Great store of food is gain'd by salt,
all things it sauiory makes.

In Physicke and Chirurgie,
it hath the greatest part:
It doth containe an essence true,
which glads the fainting heart.

It causeth appetite at neede,
it quencherh thirst at will:
It ceaseth paine of raging gowts,
it feours hot doth still.

Thereby are bleeding wounds made
and that without delay:
Yea, fordid vlcers it makes sound,
and tumours takes away.

For meat and medicine there's not oug'
with salt compar'd may be.
Wherefore Ile cease to praise a thing
aboue capacitie.

God grant we all may seasoned be,
with salt deuoyd of strife,
That while we liue we may doe good,
and gaine eternall life.

Sal metallorum, est lapis Philosophorum.

Mm 3 SVL



OF SULPHUR.

*Sulphur is taken
in generall three
manner of waies.*



Sulphur is generally taken for every fatty, oilie, or any way combustible part of any creature, whether it be Animall, Vegetable, or Minerall, namely in Animall it comprehends *Adeps, Axungia, Pinguedo,* and what else is combustible. In Vegetables it includes *Rosine, Terebinthine, Gum, Oyle, Waxe, Vinum Ardens,* or *Aquavita.* Touching Mineralls or Mettals, it includes all sorts of Bitumens, with also the oyles of Mettals, as of *Gold, Siluer, Iron,* or any other, together with all sorts of Brimstone. Also it comprehends all sorts of Minerall salts, I mean their Oiles, as the oyle of Vitriole, of Allome, or of common salt, &c. And further it is to be considered, that every Animall, Vegetable, or Minerall substance whatsoever, is said to containe his own peculiar and different Sulphur, as for example, in wine or beere, or any other liquid thing vegetable, that spirituall part which is combustible, though it be liquid, is termed the Sulphur thereof, viz. *Aquavita* is the Sulphurous part of Wine, and so also of beere is to be vnderstood.

*A speciall obser-
uation.*

Example.

A generall rule.

it is to be considered, that every Animall, Vegetable, or Minerall substance whatsoever, is said to containe his own peculiar and different Sulphur, as for example, in wine or beere, or any other liquid thing vegetable, that spirituall part which is combustible, though it be liquid, is termed the Sulphur thereof, viz. *Aquavita* is the Sulphurous part of Wine, and so also of beere is to be vnderstood.

Of Sulphur in particular.

What it is.

Sulphur in particular is that vsuall Sulphur or Brimstone which with vs is common, of which Artists make diuers excellent medicines viz: *Flos, Oleum, Lac, Arcanum,* and *Balsamū Sulphuris,* as also *Essentia Sulphuris,* with many other profitable preparations.

This

This Sulphur or Brimstone is tearmed the Balsam of the Earth, of some others it is tearmed a Minerall Terbinthine, of other some a Rosin or Gum of the earth, and is plentifull in all the world, for if you but note for one meane instance, the sea-coles, as we terme them, which we burne, euen they are full of Brimstone, whereby they kinde so soone, and burne so noysome, that were they not burned in Chimnies, none could liue and indure their sulphurous fume. As also the Turfes in some places vsed for fuell, and generally, all the earth is replenished with brimstone.

*The diuers in-
pellations of
Sulphur.*

*The plenty of
Sulphur.*

Moreouer note, that there is no mettall, whatsoeuer it be as is said, but containes a naturall Sulphur in it, otherwise it were no mettall, for intruth many of the ancient writers doe affirme that Sulphur is the Father of all mettalls, and notwithstanding all mettals containe a part of Brimstone or Sulphur in them; yet wee see Sulphur or Brimstone also to be an ordinary substance of it selfe without the helpe of any mettall to it. Further it is apparent that Sulphur or Brimstone is of many different kinds as is said, and thus much breefly of Sulphur or Brimstone.

*Sulphur the Fa-
ther of mettals.*



In praise of *S V L P H V R*
or *Brimstone*.



His Sulphur from the Horrid deepe,
dame Nature did ordaine
A fearefull scourge for sinne to be
as Scripture doth explaine.

A taste whereof we may perceiue,
 for his infernall fire
 Hath millions slaine in towne and field,
 by *Mars* his furious ire.

Yet though it seeme most mercilesse,
 our God will haue it so,
 That from the selfe-same subiect shall
 great choice of medicines flow.

Yea it one chiefe mongst three is held
 in all that liue and breath,
 And Vegetables it maintaines,
 yet burne in Caues beneath.

A Father it is of Mineralls,
 Philosophers say so,
 By help whereof they're made concreat,
 from Chaos whence they grow.

The Sulphur that's in Animals,
 in fatnes cheefly stands,
 Each order be it good or bad,
 is linck't in Sulphurs bands.

The Vegent Sulphurs many are,
 each answering to his kinde,
 Some Gummy, Oylely, watery
 and Ayry eke inclin'd.

Yea *Sulpur vini* glads mans heart,
 his courage it doth whet,
 And many a strong man it puls downe,
 it can inebriate.

I meane the sulphurous spirits of wine,
 fir Barly-corne also

Hath shewed himsef a man at Armes
each plow-man that doth know.

But to returne being wide digrest
from what I haue in hand,
The minerall Sulphur was my scope,
well knowne at Sea and Land.

Which Brimstone crude gainst itches tri'd
in country and in towne,
And to kill wormes in man and beast
is vs'd of euery clowne.

The oyle of Sulphur well prepar'd,
a iewell is of price:
His balsam precious is also,
these are no new deuice.

The quintessence thereof is pure,
and cheeres each vitall part,
Yea being prepared faithfully,
it doth reuiue the heart.

The flowres serue 'gainst pestilence,
'gainst *Ashma* and the *Murre*,
'Gainst Feauers and 'gainst Plurifies
to appetite a spurre.

Vnto the Lungs a Balsam 'tis,
the Collicke it doth cure,
From falling sicknes it defends
and is both safe and sure.

In Phisicke and Chirurgerie
great helpe it doth produce,
To him that hath it well prepar'd,
and rightyl knowes his vse.

But **Chimicke** medicines are to fooles
 like swords in mad mens hands,
 When they should aide, oft times do kill,
 such hazard in them stands.

Let **Surgeons** mates to whom I write,
 be warn'd by me their friend,
 And not too rashly giue a Dose,
 which then 's too late to mend.

For many a good man leaues his life,
 through errors of that kinde,
 Which I wish young men would auoid
 and beare my words in minde.

Though *Sulphur, Sal,* and *Mercuris*
 haue healing medicines store,
 Yet know the' haue poyson and can kill,
 prepare them well therefore.

Of



*My shape and habit strange you see,
my actions best can witness me:
About the world I take my way,
with Sol in circuit once a day.*

*From earth to skie with oft returns,
from substance to a blast:
From good to bad and good againe,
hence winged, I flye in hast.*



OF MERCVRFE

in Generall.

Mercurie commended and disprayed.



Mercurie is generally taken by Chymists for one of the three principles whereof each compleat creature is framed by nature, and it is also the first which forsaketh his fellowes, being assailed by *Vulcane*, it is in truth a fugitiue and vagrant substance, which in the preparing of diuers simple medicines, is scarce to be esteemed worth the glasse which containes it, it being also the faintest and weakest part of the three, for performing any good thing of it selfe, yet if you passe higher in Art then to a simple worke, and that you would make a true essentiall medicine, in such a case it is worthy of equall respect with the rest: namely either with the Salt or Sulphures part of the medicine. It is of some Artists tearmed a Flegma, a water or a dew, as being the most watrish part of a medicine, it is so easie to be exhausted from his fellowes, that the very warmth of the Sunne will raise it, yea warme aire without fire or other helpe in some simpies is sufficient to dry their humidity, though not alwaies wholly: but note this that all the humidity in medicines is not to be tearmed Mercuriall or Mercury: for any humidity, though it be not oylly, yet if it be combustible, it is tearmed Sulphurious, to wit, *Aquavita* as is faide, euen so much thereof as will burne is held Sulphur vinj. Thus much of Mercury in generall.

A speciall obseruation.

Of Mercury in particular.

Mercury is a special name which wise Philosophers of
 M^ancient time haue thought meet to grace quickesil-
 uer withall, the reason whereof in my opinion was, for that
 quickesiluer is an vnstable or vncertaine Metalline sub-
 stance fugitiue, and not well any way to be made fixe or
 faithfull, as triall will teach thee to know. And yet of
 quicksiluer is made many feuerall sorts of medicines, each
 in their names and operations much differing, according
 to their vertues, feuerall vses, and effects which they per-
 forme: Sublimed *Mercury* is called onely by the name of
Mercury, & by the vulgar speech, some call it white *Mar-*
cury & *Markry*. This corrosiue medicine is made of quick-
 siluer, salt, and the Colcother of Vitrioll only by sublima-
 tion or distilling them together with the quicksiluer, which
 quicksiluer flieth vp to the top of the helme or head of the
 Still, together with the spirits of salt, leauing the substance
 of the salt, as also the Colcother in the bottome of the
 glasse which is therby said to be sublimed, yet neuertheles
 though it seeme easily to be made, let none attempt to
 make this medicine without good direction or experience,
 for there is no small danger in the working thereof, and
 yet it is a good medicine well vsed, and hath much hel-
 ped the Surgeon in the outward cures of desperate disea-
 ses as namely fistulaes and rebellious vlcers.

*Mercury taken
for Quicksiluer.*

*Quicksiluer
very medicina-
ble.*

*Mercury subli-
mate white Mercu-
rie.*

*Whereof it is
made.*

*The subtle qualie-
ty of Quicksi-
luer.*

Of Precipitate.

Precipitate is also Quick-siluer distilled in *Aqua fortis*,
 which by reason of the strong spirits contained in the
 said *Aqua fortis* or strong water, it is coloured red, or gliste-
 ring, or yellowish, as experience sheweth, the vapors pro-
 ceeding from this kind of preparation are also dangerous
 and so are the medicines made therewith beeing often
 without due respect administred, yea ʒj of *Precipitate* or

*How Precipitate
is made.*

more often Pill-wise. But some Artists, And againe, some others which would be esteemed more excellent for invention haue this medicine a little remooued. And then they stile it *Turbith* mineral, attributing thereto the perfect cure of the Pox, perswading themselues none can doe like wonders to themselues, but they are children in vnderstanding, and know it not, onely they are opinionated and bold, and more often kill or spoile, then heale, as their consciences know; for Mercury is a fox, and will be too crafty for fooles, yea and will oft leaue them to their disgrace, when they relying vpon so vncertaine a medicine, promise health, and shall in stead of healing make their Patient worse then before.

The subtilty of
Mercurie.

Of *Sinaber.*

S*inaber* which is vsed in fumes for the pox, is a deadly medicine made halfe of quicksiluer, and halfe of brimstone by Art of fire: I meane by distillation. I know the abuse of these three recited medicines hath done vnspeakeable harme in the common-wealth of England, and daily doth more and more, working the vtter infamy and destruction of many an innocent man, woman, and child, which I would my wits or diligence knew to helpe; for euery hoise-leech and bawd now vpon each trifle will procure a Mercuriall fluxe, yea many a pittifull one, whereby diuers innocent people are dangerously deluded, yea perpetually defamed and ruinated both of their good names, goods, healths and liues, and that without remedy. Methinks I could spend much time if I had it, euen in setting downe the good and bad things of quicksiluer, and yet I confesse I am too weake to describe the tenth part of his wonders.

Wherof *Sinabriti*
is made, and the
use and abuse
thereof.

The medicines
that are made of
Mercurie.

There are also from *Mercury* of late yet diuers other good medicines in vse, which for their forces and vertues are admirable, as namely Mercury water, which is made of sublimed Mercury, and called *Lac Mercurij*, *Mercurius*

rius dulcis, Mercurius vita. There is also both Diaphoreticke Mercury, yea Diaureticke, Vomitiue, and Laxatiue medicines of diuers sorts out of Mercury both safe and good to be made, the preparations and vses of which, when time serues I meane to publish.



In Laudem Mercurij:

OR IN PRAISE OF
Quicksiluer or Mercurie.

WHereto shall I thy worth compare?
whose actions so admired are,
No medicine knowne is like to thee,
in strength, in vertue and degree.

Thou to each Artist wise art found,
a secret rare, yea safe and found:
And valiantly thou plaist thy part,
to cheere vp many a dolefull heart.

Yet makest thy patient seeme like death,
with vgly face, with stinking breath:
But thou to health him soone restores,
although he haue a thousand sores.

The perfectst cure proceeds from thee,
for Pox, for Gout, for Leprosie,
For scabs, for itch, of any sort,
These cures with thee are but a sport

Thou

Thou humors canst force to sublime,
 and them throw down when thou seest time,
 Yea from each end diseases flie,
 when thou art prest thy force to try.

Sweat to prouoke, thou goest before,
 and vrine thou canst moue good store,
 To vomit for diuersion best,
 in purging downe thou guid'st the rest.

Mans body dry thou canst humeckt
 performing it with due respect,
 And being too moist thou mak'st it dry
 who can that secret cause descry.

Quid non men terme thee, wor's thou why t
 thou canst be faithfull yet wilt lye:
 Thy temperament vnequall strange,
 is cuer subiect vnto change.

For thou art moist all men may see,
 and thou art dry in th' highest degree:
 Thou'rt hot and cold euen when thou please,
 and at thy will giu'st paine in ease.

Yet thou hast faults, for I dare say,
 thou heal'st and kil'st men euery day,
 For which I will not thee excuse,
 nor hold them wise that thee abuse.

But for my selfe I doe protest,
 as trusty friend within my brest,
 Thy secrets rare most safe to hold,
 esteeming them as finest gould.

And why? thou art the Surgeons friend,
 his worke thou canst begin and end:

For tumors cure, yea hot or cold,
thou art the best, be it new or old.

For recent wounds who knoweth thee,
hath got a peereles mysterie :

A Cauticke thou art strong and sure,
what calous flesh can thee indure?

In Maturation wheret 'is dew,
thou art the best I euer knew :

For repercussion thou win'st praise,
by dissolution thou giu'st ease.

Whar's virulent thou do'st defie,
and fordid Vlcers dost descry :
Yea fistulaes profound and fell,
thou searchest out and curest well.

No vlcer can thy force indure,
for in digestion thou art sure :
Mundification comes from thee,
and incarnation thou hast free.

To sigillate thou do'st not faile
and lest strange symptoms should assaile
The greefe late heal'd, thou canst conuay,
th'offending cause an other way.

The Alchymist by *Vulcan* sought,
from volatile thee fixt t'haue wrought :
But thou defiest his trumpery,
and changest him to beggery.

Had I but all thy healing Art,
it would so much aduance my heart,
I should not doubt equall to be
in wealth to Lords of high degree.

But from thy venemous vapours vile,
 thy corosiuve sting that bones defile,
 Thy noysome sauors full of paine,
 God giue me grace free to remaine.

For when thou ragest Bird, nor Tree,
 nor fish, nor fowle can withstand thee:
 What minerall so stout can say,
 she can withstand thy force one day?

In *Saturns* brest thou seem'st to dwell,
 by *Iupiters* foyle thou dost excell,
 Thou Lion-like surprisest *Mars*,
 rich *Sol* thou mak'st as pale as ash.

Thou *Venus* beauty canst allay,
 thou Hydrarge dost Elipse *Luna* :
 And though thou seem'st to wrong all fixe,
 not one without thee can be fixe.

Thou art their Mother, so saies *Fame*,
 which giues them cause t'adore thy name:
 Ready thou art as women be,
 to helpe poore men in misery.

Humble ; to dust, and asheat will
 water and oyle from thee men still :
 Tost vp and downe in fire thou art
 yet subull *Mercurie* plaies his part.

Meeke as a Lambe, manly eake,
 soft as the Wool, Tiger like :
 Millions in one, onc in a Million,
 Male and Female in thy pauillion.

Thou Hermaphrodite as Fathers know,
 seeming solid, truely not so :

Thoult be in all, none rests in thee,
thy boldnes brings Calamity.

Thou Idoll of the Chymists ould,
who shall thy secrets all vnfold?
Swift is thy tongue, none can thee stay,
when thou seem'st dead thour't flowne away.

If thour't in all things as men say,
daily produced and fled away,
Vp to the skie, downe to the graue,
a wonder like thee, where shall men haue?

But mend thy faults or thou shalt heare,
I'll blaze them out another yeare:
For many a guiltles man thou hast lam'd,
and many a modest wight defam'd.

And yet t'is sinne to wrong a theefe,
th'Impostures fault therein was cheefe:
For he that would be bold with thee,
'twere meet he knew Philology.

For thou to such art knowne and true,
but hatest fooles that men vndoe,
Handling thee without due cause,
thou being not subiect to their lawes.

Now to conclude, one boone grant mee,
I will requite it gratefully:
If th'old wife kill thee with fasting spittle,
suruiue to make her patient cripple.

For well I know it is in thee
to cause disgrace effectually:
His throat and nose see thou defile,
for thou thy Father canst beguile.

Force out his teeth, close vp his iaw,
 and leaue scarce entrance for a straw :
 Yea deafe, or dumbe see thou him make,
 with ache and woe, with palfie shake.

Regard not thou though he should curse,
 whose greefes th'hast chang'd from ill to worse :
 It's knowne by thee ther's many sleepe,
 for whom it is too late to weepe.

I'le leaue thee lest thy anger rise,
 thy fauours let no man despise :
 For as sword drawne, I know thou'r't prest,
 men to offend, or yeeld them rest.

To any mou'd at these meane rimes,
 I answer'twas my idle times,
 And loue to youths in Surgery,
 vrg'd me t'vnmaske olde *Mercurie*.

If *Zoylus* deeme I stretch too wide,
 in praising thee what heeres descri'de,
 I nothing doubt to proue each line,
 to him that quarrels in due time.

The conclusion touching *Sal*, *Sulphur*,
 and *Mercurie*.

*Whereof mans
 body consist.*

MAny learned writers haue through their whole vo-
 lumes, left to future ages as a trueth ratified, that
 next the Almighty hand which createth all things, *Sal*,
Sulphur, and *Mercurie*, are the three principles whereof
 euery naturall body is composed, whether it be Animall,
 Vegitable,

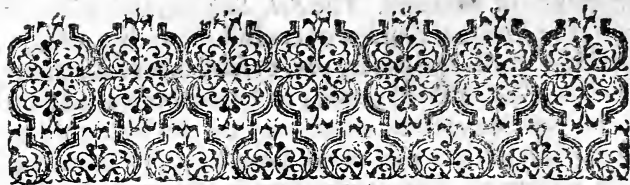
Vegitable, or Minerall. The *Sal*, *Sulphur*, and *Mercury* are by the Ancients diuided out as followeth: they affirme the thin Volatile and watery part or substance of any thing whether it be animall or not; to be the Mercuriall part thereof; the fatty, oilely, or any way combustibile part to be the Sulphurious part of the same medicine, and the ashes remaining after combustion is esteemed the Salt part thereof. *Example.*

Each of these three substances are well to be diuided from the other by Art, and to be reunited, the pure part being separated from the impure. But in this part resteth the whole Chymicke Art, the artificiall effecting whereof sheweth great perfection in the Artift, these things are talked of by many, but performed truely by few, for in this it may be truly said: *Aliquid Latet quod not patet: hic labor hoc opus.* *A Paradoxe for Artifts.*

Also the diuision of Animall, Vegitable, and Minerall creatures is as followeth. All whatsoever hath life, whether it be in Sea, Land, or Ayre, liuing it is esteemed an Animall. *What creature is Animall.*

All whatsoever groweth vpon the vpper face of the earth by nature, or mans industry; whether it be Tree, Plant, Hearb, or what thing else so euer from the Cedar to the Thistle, cyther branch, barke, or roote, is accounted for a vegetable creature. *What the vegetable creature is.*

And all whatsoever is meere earth, stone, iuice, or liquor of earth, as Salt, whether it be of the Sea, or Land, together with all metalls or mineralls whatsoever, are reputed for the Minerall part. *What a minerall creature is.*



OF THE SEVEN PRINCIPALL Mettals ascribed to the *seven Planets.*



Here are seven principall Mettalls in Chymicall, Phisicall and Chirurgicall vse, and they are by many famous writers which are delighted in the preparation of medicines, named and noted downe vnder the vsuall names or Characters of the seven Celestiall planets, as namely Lead is tearmed Saturne, and noted by the Character of Saturne. Tinne is ascribed to the planet Iupiter, and marked with the Character of Iupiter. Iron is marked out with the Character of Mars.

Gould is set downe by the Character of Sol; Copper by the Character of Venus: Quicksiluer by the Character of Mercury: Siluer is deciphered according to Luna. Which things the learned haue thought fit so to doe, no doubt for many good reasons; one of the least of which is for a more breefe distinction in their writings at all times.

Theophrastus Paracelsus in a treatise of Sulphur, as *Michael Toxites* sometimes of Stransburge, Doctor of Phisicke noteth, hath these words of the seven Mettals and their vertues: saith he, the Sulphur contained in the seven Mettals, inricheth or endoweth each of them with medicinall vertues, appropriating them to seven principall members of mans body for the curing the feuerall greefes

of

The names and Characters.

A reason of these Characters

of the same members, as namely.

The medicines prepared artificially from Gould, are noted chiefly to respect and cure the diseases of the heart. Those of silver to respect the braine chiefly. The medicines from Copper to respect the kidneyes. Lead and the medicines thereof to the milke.

Seven peculiar effects in these 7. Mettals.

Iron to the Gall.

Tinne to the Liver.

Quicke silver to the Lungs.

But note further that notwithstanding these mettals are said to respect these principall members mentioned, yet from any one of them may be made medicines that doe respect all the parts of mans body, as namely, *Aurum potable*, and so of others: for in truth these mineralls can do wonders both in Physicke and Chirurgery, being rightly prepared and applied, and the contrary being abused. Thus much in breefe touching the seven principall Mettalls.

How farre generally the effects extend.

A worde or two touching the foure Elements. The foure Elements are Fire, Ayre, Water, and Earth. But the diuision which the Chymists of these times pleade for touching the Elements, *Iosephus Quercitanus* expresseth in these words following: saith hee, the whole world is diuided into two Globes, to wit, into the superiour Heauen, which is *Ætheriall* and *Ayrie*, & into the Inferiour Globe which containeth the water, and the earth. The superiour Globe which is *Ætheriall*, hath in it fire, lightning, and brightnesse, and this fiery Heauen is one formall and essentiall Element; the water and earth are the other two Elements: so he concludes, there is but three, and with him all the Chymists of latter times subscribe, affirming that number most perfect which agreeth with the euerlasting Trinity.

The whole world contained in two globes.

What is cembred in the superiour globe. What the inferiour containeth.

Paracelsus in a treatise of his, called *Meteorum*, cap. I. mentioning the difference betwixt foure and three Elements, hath these words. Touching fire; saith he, fire which is esteemed one of the foure elements, can stand with

with no reason so to be: but as touching the Earth, the Water, and the Ayre, they are truely elements; for they giue element to man, but as touching fire, it giueth no element, it hath no part in the breeding of man-kinde, for it is well possible for a man to be bred, and to liue without fire; but neyther without ayre, water, nor earth can man liue, for in truth from the Heauens, by helpe of the other two elements doth proceed sommer and winter, cold and heat, and all nourishment and increase whatsoeuer without the helpe of fire. Therefore are the heanens the fourth element, yea and the first, for the sacred worde sheweth vs that in the beginning God made heauen and earth, shewing that heauen was the first made, and in the outward heuens are included the water and earth, which saith *Paracelsus* may be compared to wine contained in a vessell, for wine is not gathered and prepared without a vessell first had and ready, prouing also many waies that the fire is included within the Element of Ayre, & is no Element of it selfe. To proue the like opinion, touching the foure elements, I could rehearse the names of many famous writers if I had leisure, and that the occasion were worth it, but the question little concerneth the cure of diseases by young Surgeons, wherefore I will conclude this point my selfe, intending neyther to quarrell for to proue three, nor foure, let there be foure or three, eyther of both shall content me.



A PREFACE TO THE
Treatise of the Characters and
 tearmes of Art following.



Vrteous Reader, considering with my selfe that young men, in long voyages are full of leisure, I thought it not lost labor to adde these treatises to the former, for that they not onely containe profitable instructions for youth, but by their nouelty and varieties doe partly refresh the minde of those readers as delight themselues in that part of practise. It was part of my gleanings in the time of eight yeares trauell by land in forreine regions. If the matter and form thereof be not worth thy acceptance, yet I pray thee accept the good will of the giuer.

J. W.

P p C H A



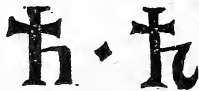
CHARACTERS AND their Interpretations.

And first of the seauen Planets.

Saturnus.

Plumbum

nodine, sanatine, laxatiue, mundificatiue, and yet full of deadlie vapors.



Lead

Cold, desiccatiue
sweet, discussing,
mollificatiue, a-

Iupiter.

Stannum

Mars.

Ferrum

for fluxes of blood; and a great opener of obstructions.

Sol.

Aurum

heauy hearted, and is reputed the best medicine.

Venus.

Cuperum

health, Physicall and Chirurgicall, viz: *oleum, spiritus, & terra cum mul-
tis alijs.*



Tinn

Diaphoretick, la-
xatiue, desiccatiue
sanatiue, &c.



Iron or

Steele

The greatest
shedder of blood
a sure medicine



Gould

A great and sure
Cordiall, for it
comforteth the

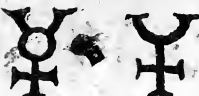


Copper

Maketh sundry
needfull medi-
cines for mans

Mercury

Mercurius.



Quick-
Silver

Is hot, could, a friend, a foe, healing, killing, ex-

pulling, attracting, coroding, & quid non?

Luna.

Argentum



Silver

A medicine neuer too often taken, a good re-

floratiue, a comfortable, and an anodine medicine, &c.

Other Characters Alphabetically.

Acetum.



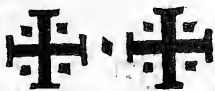
Vineger
of Beere

Good against inflammatio, discussiue, de-

fenfatiue, comfortable, anodine, &c.

Acetum

Vini.



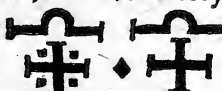
Wine
Vineger

A discusser, a cooler, a heater, a piercer, anodine,

a consumer, a causticke, and a vesicatory medicine, &c.

Acetum

Distillatum.

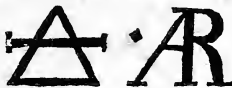


Distil'd
Vineger.

Is a vehicle that openeth mineral bodies

and extracteth tinctures, &c.

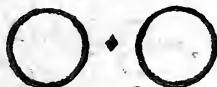
Aer.



One of the 4
Elements

Without the which no creature subsisteth.

Alumen.



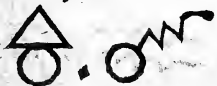
Allum
Crude

Desiccatiue, astringent, corrosiue, mundifica-

tiue sanatiue, refrigeratiue, &c.

Alumen

Combustum.



Allum
Burnt

An easie and a good corrosiue medicin, which

also induceth a good sicatrix.

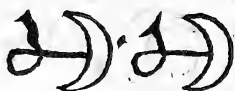
Alumen
Plumosum.



*Allum
Plume*

A secret in restoring a withered member by a

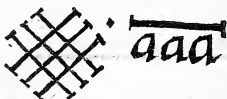
Albumen
Ouorum.



*Whites
of Egges*

Cold, defensatiue, mollificatiue, healing, &c.

Amalgama.



putting together, viz: *fiat Almagama*, but more particularly it is meant of Mercury, with any other metall.

A putting things together, or a terme of Art for

Antimoniũ.



Antimony

Vomitue, laxatiue, sanatiue, dia-

phoretike, diaureticke, anodine, causticke, and full of deadly vapors, if it be not preuented, yet exceeding precious in healing, being discreetly vsed.

Antimonij
Virum.



Glasse of Antimony or Stibium.

A forbidden medicine, and yet of doctors

vsed, and praise-worthy, if not abused.

Antimonij
Regulus.

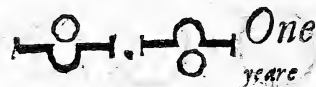


Antimony precipitate

This is but halfe a medicine, which

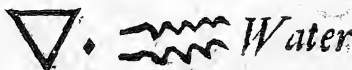
afterward is vsed to be conuerted to Flores, Tincture, or some other good medicine.

Annus



From March the 25. till the returne of the same.

Aqua.



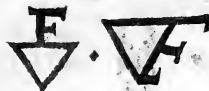
One of the foure elements of quality could and moist.

Aqua.

Aqua

Fortis.

and Salt-peeter, and diuelli otherwaies.



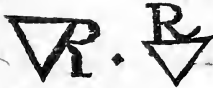
Strong
Water

Made by Vulcans Art of Coppras, Allome,

Aqua

Regis.

salt, or rather Sal Armonizcke.



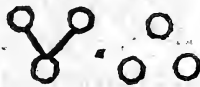
A water to
diuide gold.

This is made as the former, adding common

Aqua

Vita.

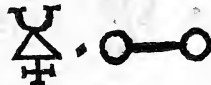
excellent vſe for healing, and the cheefe cordiall in cheering the heart of man.



Aquavita
of Wine.

Aquavitz distilled out of wine is of

Arsenicum.

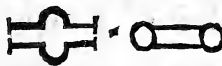


Arsnick

In taste not vni-pleasing, in tri- all deadly, yet

a good outward healer many waies.

Auripigmentū

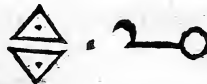


Orpi-
ment

In taste dead-ly, yet vſed of some inward-

ly for the cough, by fume with amber mixt, and outward in many medicineſ profitable.

Autumnus.



Haruest

Or as it were an entrance to the winter quarter.

Auricalcum



A chalk that
contains
gold

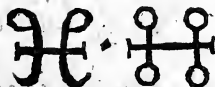
Also gold cal- cined into pou- der being an

entrance to Aurum Potabile.

Aurum

Potabile.

very often adulterated, which being true, is precious.



Potabile
Gold

A Principall cordiall medicine, but

Æstas.

and sometimes for heate.



Sommer

This character is sometimes vſed for sommer.

Æs.



Brassæ

This is but copper mixed with
Lapis Calaminaris

and prepared by *Vulcanus Art.*

Balneum
Mariæ.



Balnea
Mariæ

Is an Artificiall
distilling by a
glasse Stil set in-

to a furnace in a kettle of water, by the boyling of which, the subiect contained in the glasse is distilled.

Bolus

Armenus.



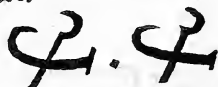
Fine bole

Is cordiall, de-
siccativæ, re-
stringent, sa-

natiue, refrigeratiue, &c.

Bolus

Communis

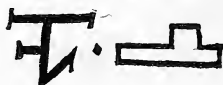


Common
bole

Imitating the
former, but
farre weaker.

Borax

Venetix.



Borax

This is a great o-
pener of obstru-
ctions of young

women, and is excellent to lute glasses, and as a second hand to Goldsmiths.

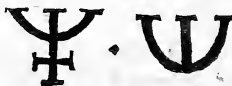
Calidus



Or rather
Warme

Neither hot
nor could.

Calx.

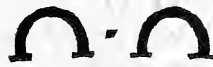


Lime

Is abstersiue, de-
siccativæ, cau-
sticke, sanatiue.

Calx

Ouorum



Lime of
Eggeshels

Is sometimes v-
sed in strong
restrictiues, &c

Calx

Viva.

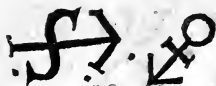


Vnslaked
Lime

Chiefly vsed
in Causticke
medicines.

Chalibs

Chalibs.



Steele

The most valiant Sonne of Mars, it openeth

obstructions, and stayeth the fluxes, &c.

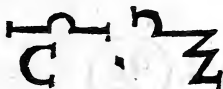
Calor.



Heate

This Character serueth not only for fire, but also for great heate.

Calcinare.

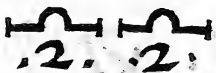


To calcine

Sometimes to burne to powder, &

sometimes to prepare by fire to a certaine height and colour.

Cementare



To Cement

Is by a mixture corrasive

to adde to any mettall pure, as Gold or siluer, a higher tincture, and also to purifie the same yet further.

Cerussa



Venice

One of the offspring of Saturne, fanatine, cooling,

Venetia.

Ceruce

anodine, desiccative, &c.

Cera.

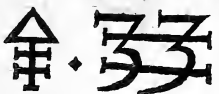


Waxe

A blessed medicine outwards & inwards, of a

temper neither exceedingly too hot, nor too cold, molificative, sanative, &c.

Cinnabriũ.

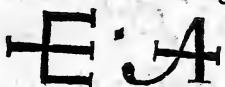


Cinnabar

Found naturall & also compounded

of Sulphur and Quicksiluer, and vied in Fumes, it spoyleth many, and healeth by chance some one in killing tenne.

Cineres



Ashes

Hereof are prepared many different medicines

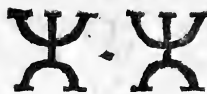
Ligni.

of Wood

of value, in Physicke and Chirurgery, amongst which the causticke stone, the ordinary Lixiuum, &c.

Corallus.

Corallus
Corallus Albus.

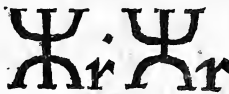


Corall
white

Is Cordiall, cooling, drying, and being prepared

Chimically, hath wonderful vertues comfortatiue.

Corallus
Rubeus.



Redde
Corall

This is as the former, but in vertues it farre exceedeth it.

Paracelsus ascribeth vertues infinite and wonderful to red Corall, if it be perfectly red.

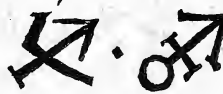
Colcothar.



Burnt Vetricioll, or Colcother

A good caustick medicine, and also cooling, exsiccatig, sanatiue, mundificatiue, &c.

Crocus
Martis.



Safron
of Iron

Good against dysenterium, Gonore Diarrhea, & generally all fluxes.

Crocus
Veneris.



Safron
of Copper

Or refined Verdigrease, and sometimes taken for refined Aes Vstum, it expelleth, drieth, mundifieth, and healeth.

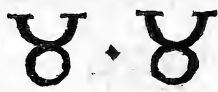
Decoctio.



Boyling

Is the boyling or decocting any medicine.

Digestio.



Digesting

Good digestion prefageth good

healing, but Chymicall digestion, est gradus spagyricus similis ventriculo per quem gradum materia coquitur melius ut puri ab impuro separatio fieri possit.

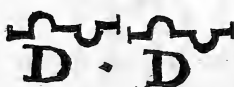
Dies
Et nox.



Daie
and Night

Containing 24. houres.

Distillatio.

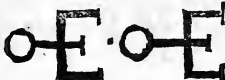



Distilling


Is the separation of the pure from

the vnpure, performed by sublimation, and precipitation, but after many kindes and fashions.

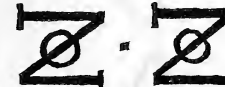
Element.

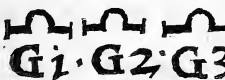
Elementa.  Not one of the four Elements But a pure medicine made by Chymicall Art, out of any good thing eyther Animal, vegetable, or minerall, *quere Libavij, lib.2. Alchym. chap. 49.*


Filtrum.  A felt This filtering with a felt, is a kind of preparation of medicines liquid, to purge them from their terrestriall parts.


Fimus Equinus.  Horse dung. Chymists vse to fet their medicines in Horse-dung to putrifie, and is an ancient and worthy worke rightly vsed, *Uicarius eius est, MB.*


Fixatio.  Fixing, or perfecting This is that al good Chymicks desire in their workes, but few truly attaine it, but in stead of *fixatio*, they find *vexatio sativ.*


Flos Aëris.  Verdigrease Called commonly *viride as*, and Vardigrece, being the rust of Copper, it is a good astringent disiccative, and corrosiue medicament.

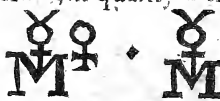
Gradus.  A degree first, second, or third, as you see them described with their severall figures.


Gummi.  Gum Of any kinde is so described, but the single Character is most vsed. Hyems


Hyems. -  Winter This Character is also vied for cold by some writers.


Ignis.  Fire As well natural as artificial, actual as potentiall, but the first is most in vse.


Lapis Magnetis.  The Load stone A iewel pretious, for value farre exceeding the Diamond of the tribe of *Mars*, in quality attractiue and fanatiue.

Lues Veneria.  The veneriall disease This is a Catholike plague containing almost all diseases in one, being seldome perfectly healed.

Luna Crescens.  Moone increasing Or the first and second quarter of the Moone.

Luna Decrescens.  Moone decreasing Of the two last quarters of the Moone.

Lapis Pruncella.  A stone made of Salnitre. This is good against toothache and inflammations, and for sores of the mouth and throat, and also against hot feuers inwardly taken.

Lapis Calaminaris.  Chalamint stone Is a stone which chaungeth Copper into Brasse, it is desiccatiue, and excelleth in Lotions for the eyes, &c.

Lapis
Hematites.



Bloud Stone This stone is vsed to stench bleeding inwardly &

outwardly, and hath many other vertues medicinable.

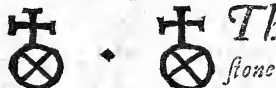
Lapis
Sabalofus.



This is a great secret in curing a fracture being daily giuen the

party, ʒ.ij. and also mixed with the outward medicine and applied to the greefe.

Lapis
Granatus.



The granat stone This is a luellpre-tious in

medicine, but not commonly vsed.

Lateres.



Stones Or bricket for farnaces or other waies.

Lateres
Cribrati.



Powder of Bricketes It is often vsed in preparing medicines as well to

make good Lute, as also for diuers other needfull vses.

Lixiuum
Lixiuum.



Lye made of Ashes This is many waies vsed very profitable in hea

ling outwardly and inwardly, and for causticke medicines it is the best.

Limatura
Martis.



Filings vsed for the making of Crocus Martis.

Lutum
Sapientix



Lute vsed Some suppose that the pinching of glasses to-

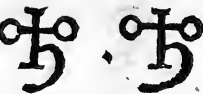
gether is it, but it is taken for a man, and so meant by diuers learned men.

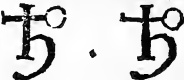
Lutum
Communis




Lute Made of good Clay, with flakes of wool, & salt


commonly, but there is as many feuerall Lutes as Chymists vse.


Lythargirus  *Litharge of Gould* One of the sons of Saturne, & is partly so tear-leade, after are
 Auri.
 med, for that the tests which refine gould through made into Litharge, I meane the Saturne into them.

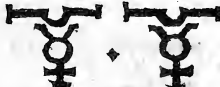
Lythargirus  *Litharge of Silver* One of the sons of Saturne, supposed to
 Argenti.
 proceed of Luna as aforesaid, but indeed these and the first are sent daily from Holland, made onely of Lead.

Lythargirus  *Litharge of Leade* One other of the sons of Saturne, & is made
 Plumbi.
 by every Plumber out of that part of Saturne which wasteth to a hardnesse in melting.

Marchasita.  *Vnprepared Minerals* Of any kind, as we vulgarly say silver oare, or lead oare, &c.

Mercurius.  *Quicke Silver* The hottest, the coldest, a true healer, a
 wicked murderer, a pretious medicine, and a deadly poyson, a friend that can flatter and lie.

Mercurius  *Quicksilver sublimed.* This fellow hath deserued much praise & dispraise, as till more scope I omit, for hee hath done me both credit and shame.

Mercurius  *Quicksilver precipitate.* A worthy medicine of true Artifts with
 Praecipitatus
 praise vsed, of Empericks shamefully abused, for healing and killing he is knowne.

Mercurius Solis.



Mercury of Gold

Hic Labor, hoc opus : quod supra me nihil ad me,

true Philosophers onely are capable of this mystery.

Mercurius Lunæ.



Mercury of Silver

This & the former haue one way of preparation,

or not greatly different, but are past my reach.

Mercurius Veneris.



Mercury of Copper

I haue heard many brags of this medicine, and to

be precious, but I neuer could see it, &c.

Mercurius Martis.

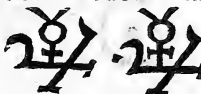


Mercury of Iron

It is said that with this medicine, the vertue of the

Loadstone is strengthened aboue measure.

Mercurius Iouis.



Mercury of Tinne.

This is reported able to make of lead tinn ; but I haue not seene it.

Mercurius Saturni.



Mercury of Lead

This is easily drawn from Lead in a good quantity,

per se, onely by Art of fire, as writers affirme.

Mensis.



One month

Containing 28. daies, and 28. nights, or foure whole weekes.

Minium.

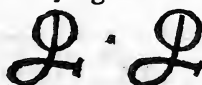


Or red Leade

Is one of the sons of Saturne, cooling drying,

repelling, healing, mollifying, discuffing, &c.

Minutum.



One Minute

The sixtieth part of one houre.

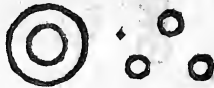
Mell.



Honey


Honey is Laxatiue, mundificatiue, mollificatiue,

fanatiue, &c.


Oleum.  Oyle of *any kinde* And sometimes taken for Sulphur, is as if you would say, take from *Guaiacum* his Sal, Sulphur, and Mercury, by his Sulphur you must vnderstand his oyle part, &c.


Phlegma.  *A Flegma* It is vsed for any distilled water which is void of Spirit, as rose water.

Piger Henricus.  *Slow Henricke* An instrument for distilling, so called, for his exceeding slownes.

Plumbum Philosophorum.  *Philosophers Leade* This preparation is mysticall, & aboue my reach, the same Character is also vsed for the Philosophers stone.

Puluis.  *Pouder of any thing* Any fine powder, and sometimes it is taken for subtile flores, and fine spirits of any medicine.

Purificare  *To purifie* Eyther by sublimation or by precipitation, or any kinde of purifying or cleansing.

Putrefactio  *Putrifie* - Is dissolving or opening of mixed minerals bodies by a naturall, warme, and moist putrefaction, namely by *simus equinus, vel eius Vicarius, MB.*

Quinta Essentia.  *Quinta Essentia* A permanent Essentiall well digested medicine, without grosse superfluities, drawne from any subsistence eyther animall, vegetable, or mineriall.

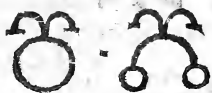
Quinta
Essentia vini.



The quint- This is also cal-
essence of led *Aquavita*, &
Wine *Aqua Celestis*, &

Alcole vini, and *Aqua Ardens*, with many other names.

Realgar.



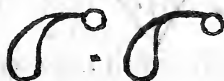
A kinde A thing sel-
of *Ratsbane* dome vsed in
sometimes vsed in Alchemy. healing, thogh

Reuerberatio



A preparation Chymical by fire.

Retorta.



A retort of Glasse

Sublimare.



To sublime

Or to cause to ascend by fire or Art of distilling very many waies.

Sulphur.



Brimstone

Discussive, sanative, desiccative, anodine, repercussive, &c.

Sulphur
Philosophorum.



Perfect Sulphur vix cognitum

A true essential, perfect, and vniuersall medicament out of Sol.

Sal

Commune.



Common Salt.

Discussive mundificative, sanative, & most

Sal

Gemma.

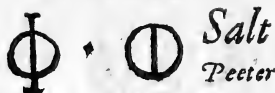


Precious Salt like Christall

A Christaline Salt, naturallie growing in mines

in Polonia, neere the City of Cracouia, &c.

Sal
Petra.



A salt of a wonderfull kind and breeding, with effects admirable both good and euill.

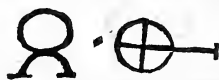
Sal
Amoniackum



Growes naturally in Turkey, but is comonly made

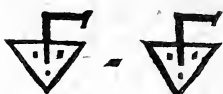
of Sal Alkali, common Salt, Vrin &c. Teste Andrea libanio.

Sal
Alkali.



A Salt of an A kinde of vegetable Salt, heard called Kali but Paracelsus tetmeth euery vegetable Salt Alkali.

Sal
Colcotharis.



A salt out of Dead-head from the Caput mortuum, and

commonly called Dead head, which is exceeding astringent and drying.

Sal
Tartari.



A Salt of Tartar or wine Lees a medicine of many

great vertues, both of it selfe, and also for making other medicines.

Succinum
Album.



Commeth from Prutia and is a Cordiall medicine,

diaureticke, diaphoretike, laxatiue, and generally opening all obstructions.

Succinum
Citrinum.



Like the former, but not so good, yet from this is

an excellent Oyle drawne, seruing for many especiall medicines inward and outward.

Spiritus
Vini.



A pure and essentiall substance, cordiall, and of

infinite other vertues Liquid, yet wholly combustibile.

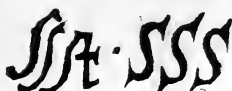
Sopo.



A good medicine attractiue, mollicatiue, &c.

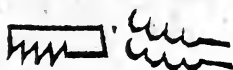
Stratum

Stratum
Super Stratum.



Two medi- A terme of Art
cines laid one often vsed viz:
or other fiat stratum, su-
per stratum, that is, first put in of the one, and then of the other till all
bee in.

Solutio.



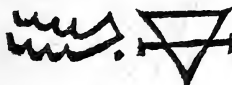
Opening The opening of
mineral bodies di-
uersly by Vulcans
Art.

Sigillum
Hermetis.



Hermes A kind of Lu-
ting or sealing
his Seale of Glasses by
a more excellent manner.

Terra.



Earth Commonly ta-
ken for potters
earth to make
Lute of.

Tigillum.



A melting
pot A pot wherwith
Gold-smiths &
other Artifts vse

to melt mettals or medicines in, called also a Crucible.

Talcum.



Talke This mineral is
scarce well known
yet, the oyle ther-

of is much extolled for beautifying the skinne.

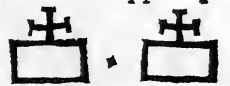
Tutia.



Tutty A medicine com-
monly knowne,
and is made of

the scumme of copper, or of Copper by combustion.

Tartarus.



Argall Is the Lees of
wine dried, wch
maketh many

profitable medicines, artificially prepared.

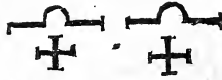
Tumores.



Tumors

And also any
Apostume or
swelling, wher-
soever in mans body.

Turbith



Turbith

This with
some addita-
ments artifi-
ciall.

Minerall.

Minerall

all, well prepared, is precious in the cure of the French pox.

Vlcus

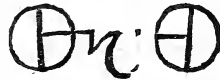


An Vlcus

This is the anci-
ent character for
an Vlcus, & some

Authors haue vsed the same for a wound.

Vitriolum.



Coppras

It is best which
is made of
copper.

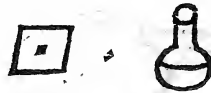
Vitrum.



Glasse

It is vsed for a
Glasse Still, and
also for any other
kinde of glasse.

Vrina.



Urine

Mans vrine or
Childrens vrine,
it is commonly


vsed in Alchymy, and some vse it in fomentations, and otherwise in
Chirurgery andphyicke.

CER-



CERTAIN E CHIMI-
CALL VERSES, OR GOOD

will to young Artists, from
the Author.

ome verses plaine at vacant times,
I fram'd and layd aside:
Intending youths which leaifure haue,
might view what I haue tride.

And as occasion them should leade,
might search, yea finde and know :
The principles which follow heere,
from which great treasures flow.

Three principles the Chymists hold,
Each creature doth con aine,
And foure the Methodists haue taught,
and learnedly maintaine.

Three must I needes confesse I finde,
confirmed all by reason :
And yet from foure to vary ought,
I doubt 'tis petty treason.

Vpon this Theame two schollers might
Well feuen yeeres good time spend :
Continuing still in argument,
vntill the time had end.

Wherefore ambiguously to wade,
 within a sea of strife:
 I like it not for feare of knockes,
 I loue a quiet life.

All worthy Artists I adore,
 and duty bindes me so:
 Yea thankfully Ile learne of each,
 the thing I doe not know.

And ere Ile seeme once to contend,
 my will shall be so euen:
 I know there's three, I yeeld ther's foure
 to make the summe vp seuen.

But wil you know why Chymists cal
 their principles but three?
 With heauenly number it agrees,
 from all Eternitie,

A Trinity in Deity,
 most sacred and most sure:
 All should confesse in vnity
 is, was, and shall endure.

From which as from a perfect guide,
 each man his worke should frame,
 And in his conuerfation true,
 alwaies respect the same.

In honour of which Deity,
 true Chymists daily finde.

A tripart subllance for to be
 of all things following kinde.

Which in the earthly spheare are found,
 each one in his degree.

And these by Artifts stiled are
Sal, Sulphur, Mercurie.

Who calling vnto reckoning all
 that Animals doe seeme,
 Of Vegetables in their kindes,
 They make no small esteeme.

Likewise from minerals each one,
 great medicines they deriue :
 Which do root out inueterate greefes
 and keepe men long aliuie.

The *Mercurie* thats volatil, the
Sulphur burnes like fire :
 The *Sal in fundo* doth remaine,
 as christals their desire.

Each of these three to three againe,
 The Artift can produce,
 Which done & ioyn'd the medicines pure,
 and fit for each good vse.

Thus haue I in one Period
 anatomized plaine :
 True medicines how thou maist prepare,
 if thou wilt take the paine.

But if that any further seeke,
 in true Philosophie :
 The Minerals fix and pure to make
 that is no worke for me.

I to my Latchet will returne,
 and rest me in a meane :
 Good medicines onely to prepare,
 I holde sufficient gaine.

And vnto young men that haue minde,
 in Alchymie to venture :
 He shew them to the Labyrinth,
 which who so list may enter.

Fowle hands and face he must not scorne,
 if ought good he would finde :
 With coales and fime to be besmeerd,
 it is the Chymist kinde.

The trowell, bricke, with hammer oft,
 and shouell he must vse,
 The cliffes, the ronges, and bellowes eke,
 he no way may refuse.

His grates of iron he must fit,
 his rings to cut his glasse :
 With pots of iron, brasse or clay,
 his furnace he must passe.

The Retort and the Alembicke safe,
 with lute he must defend :
 And vaprous ventils haue in care,
 those must he often mend.

And why, in vaine he makes a fire,
 which cannot rule the same :
 For therein resteth all the art,
 the pleasure, gaine, and fame.

Yet thats not all he ought to know,
 that would a Chymist bee .
 A thousand things are yet behinde,
 as he shall finde and see.

But hee that takes delight in ought,
 regar deth not the paine:

So he may haue the thing he seekes,
although it be but vaine.

A Chymist that would duely worke,
must readily define
The characters, which he shall reade,
and spels of ancient time.

Each Minerall he ought to know
his malice, force, and might,
Or he may soon beshrew himselfe,
if he mistake the right.

The twelue signes of the Zodiake,
he ought to know by heart,
Coniunction, Opposition too
of planets, though in part.

The sextile, Trine, and Quadrileeke,
the Dragons head and taile,
The planets orders how they raigne,
and where their force may faile.

In termes of Art which diuers are,
instructed he must bee,
Amalgamate, alcolizate,
and cohobate must he.

To calcine and for to cement,
to circulate also,
To colliquate, coagulate,
and congelate I trow.

To colorate, to corrodate,
conglutinate likewise:
Coagmentate, coadunate,
whereby to win the prize.

Some-

Sometime digestion needfull is,
 and deliquation too,
 Diuaporation is a worke,
 the Alchymist must doe.

Where distillations doe preuaile,
 Distraction takes the head,
 Then by Elaboration,
 wise men may be misled.

Election needfull is in all,
 euaporation too,
 Expression and extraction are
 two things that he must doe.

In exhaltations he must striue,
 and Ebullitions make,
 His fermentation often times
 will cause him to awake.

His filterations many are,
 His fumagations eke,
 And most in his fixations,
 the good man is to seeke.

Gradations then are thought vpon,
 and granulation more,
 Incorporation hath his time,
 Ignision pincheth fore.

And Leuigation hath his place,
 and Liquefaction vse:
 Then to Lutation haue a care,
 therein be no abuse.

For all mortification
 can doe, or else can say.

I hope multiplication,
the cost and paines will pay.

He suffers Mafaration,
and Maturation both,
Embracing putrifaction fowle,
which many a man would loth.

Precipitation was forgot,
purgation goeth before,
And by projection he shall finde,
if he be rich or poore.

But if his hopes yet chance to faile,
Reduction thought vpon,
Restriction, Reuerberation,
and Resolution strong.

Then Repurgations often had,
with Segregations fine.
Some Sublimations duely vs'd,
may well become the time.

Stratifications in due place,
Solutions eke in time.
Subduction neuer wanting is,
a Chymist to define.

Of Torrefactions he hath store,
Viufications hope,
But findes vitrification,
or vanisht all in smoke.

What shall I say ? this is not all
the Chymist must abide
This Labyrinth out, his glasse then breakes,
his patience there is tride.

Yet grant to this although twere more
 there's no man neuer knew,
 A worke so slight and cheape as this,
 such rare effects to shew.

In gaining health to sicke and fore,
 preferuing men from woe:
 Yea fundry waies expelling greefes,
 which in mans body grow.

By true Elixers of much price,
 by *Quintessences* high,
 And many famous medicines more,
 which I for haste passe by.

Though once a *Galenist* ill led,
 deuis'd a slanderous rime,
 Which he in Latin verse put fourth,
 I know not well the time.

And this it was that followeth next,
 which if it prooue a lie,
 Ile no way seeme him to excuse,
 you haue't as chepe as I.

*Alchimia est ars sine arte,
 cuius subiectum est pars cum parte,
 Proprium eius probe mentiri,
 & ultimo mendicatum iri.*

But lest I should be deemed one,
 'mongst birds that file their nest,
 Ile leaue this doubtfull verse as 'tis,
 and haste to end the rest.

Common it is with Chymists true,
 their house-doues them withstand:

Fearing all will be spent in smock,
time, goods, yea house and land.

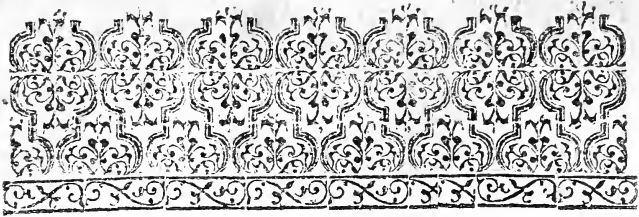
A noyse domesticke shrill I heare,
and I dare stay no longer:
Good friends adue till further time,
I must obey the stronger.

You Chymists wife that wiued are,
be warned heere by mee,
Search not into this mysterie,
except your female gree.

For I haue found to my great smart,
when she list to contend,
Then downe goes pot, yea glasse and all,
and I vow to amend.

And neede sayes yeelde, there's fault in him,
that stubbornely stands out,
Till breech and iacket all be torne,
by searching secrets out.

Vale.



THE
 TERMES OF ART
 RECITED FOR-
 MERLY IN VERSE, ARE
 heere againe repeated Al-
 phabetically, and more plainly
 interpreted.



Ablution is the abstraction of dust moths, gret, adhering to a thing with an hares foot, feather, spather, knife, or the like.

Ablution is exaltation, cleansing vncleane things by often-infusion, reducing them to purity.

Alcolismus is an operation by calcination, ribellation, and other meanes, which reduceth a matter into Alcool, the finest powder that is.

Amalgamation is the putting together, solution, or calcination of familiar metalls, by *Argentum viuum*, &c.

Aromatization is an artificiall manner of preparation, whereby medicaments are made more suauolent and odoriferous for the oblectation and strength of the palate, and vitall faculty.

Attrition is a certaine manner of preparation, like grinding on a conuenient stone with some humidity, wherby *Lapis Iudaicus*, *Collyria*, and the like are prepared.

Buccellatio

Buccellatio is diuiding into gobbets, or by peece-meale.

Calcination is solution of bodies into Calx or Alcohol, by desiccation of the natiue humidity, by reuerberate Ignition, by Amalgamation, by *Aqua fortis*, the spirit of salt vtrioll, Sulphur, or the like.

Calsfaction is a certaine manner of preparing simple and compound medicaments, not by boyling or burning, but by the moderate heat of the sunne, fire, *simus equinus*, *vel eius vicarius*.

Cementation is gradation by cementing.

Cementum is a minerall matter like lute, and penetrating, wherewith mettals spred ouer are reuerberated to cement.

Ceratio is the mollification of an hard thing, vntill it be like wax at the fire.

Cinesfaction is ignition conuerting Vegetables and Animals by a very vehement heat into *Cineres*.

Circulation is the exaltation of pure liquour, as spirit of wine by circular solution, and coagulation in a Pelican, a moderate heat forcing it.

Clarification is the expurgation of sodide grosse matter from liquid medicaments.

Coadunation (sometimes termed by the name of a more excellent species, *Coagulation*) is a perfect and skilfull working, whereby disgregate things are vnited.

Coagmentation like to glutination, is by liquate things, on which dissoluing powders are cast, and afterwards are made concrete by laying them in a colde place, or by euaporating their humidity.

Coagulation is the coaction of things agreeing in nature from a thin and a fluid consistence into a solid masse, by the priuation of moisture.

Cocien is the alteration or commutation of a thing to be boyled.

Cohobation is frequent abstraction of liquour oftentimes affused vpon a dead head or drie feces by distillation.

Colation is the transmission of that which is humid thorough a strainer, that the liquour may bee had separated from the drier substance.

Colliquation, or *Colligefaction*, is the coniunction of many fluids or liquables to make one compound by eliquation on the fire.

Coloration is, whereby the perfect colour of golde, silver, Philosophers lead, &c. obscured by any sulphurous vapour, is renouated and illustrated by maceration, frequent ablution, in sharpe liquour of Salt, Argal, spirit of wine, wine vineger, or by an acute paste layd on the sayd mettals.

Combustion is ignition, conuerting bodies by burning them into calx.

Comminution is the reducing of any matter into such fine powder by delution, filtration, exiccation, contusion, calcination, cribration, or any other meanes, that no roughnesse or corpulency be felt, as Alcool.

Complexion is the nature of a part hot, colde, moyst, or drie.

Composition is the coadunation of diuers things.

Concretion is diuaporation of humidity in fluid things, by gentle decoction on fire.

Confriction is a certain light *Attrition*, by which puluerable things, with the rubbing of the fingers, or a more solid body, are quickly leuigated, as *Cerusa Amylum*, &c.

Confusion is properly a mixture of such liquid things as are fluid, and of one and the same nature (as of diuers waters by themselves, and so of oyles) liquid things (as wax, rosin, pitch, &c.) may likewise bee confused, but by Eliquation.

Congelation is often performed by a precedent decoction of things to a certaine height or iust consistence, which after set into a celler or colde place, doe congeale into a transparent substance, not vnlike ice, as is seene in the making of Coperas, Salt-peeter, or the like.

Conglutination is the ferrumination or compaction of mettals,

mettals, iewels, glaffes, &c. by gummess, glue, whites of egges, and the like, the nature of the conglutinated remaining.

Contusion is the beating of grosse bodies into smaller or very subtill part.

Corrosion is calcination, reducing things coagulated, by the corroding spirits of salt, sulphur, wine-vineger distilled, *Aqua fortis*, &c. into calx.

Cribration is the preparation of medicaments by a siue, or searce.

Deliquation is a preparation of things by melting on the fire.

Deliquium is the liquation of a concrete (as salt, powder calcined, &c. set in an humid and frigid place (externall humidity, resolving the siccitie) that it flow, hauing a watery forme, as is apparant in the preparation of salt of Tarter.

Descension is when the essentiall iuyce dissolved from the matter to be distilled, is subducted and doth descend.

Despumation is when spume or froth floating on the top, is taken away with a spoone, feather, or by colation.

Distillation is, whereby an essence is extracted in the forme of liquour, and being coagulated, is carried by the *stellidium*, translated out of the vessell of the matter, into the *excipulum* sublocated.

Difflation is, when through heat, spirits arising, are with a kinde of folles blown into the aduerse camera, and there are found coagulated.

Digestion is simple maturation, whereby things vncocted in artificiall digestory heat (as food by a naturall heate in the stomacke) is digested.

Dissolution is a preparation of medicaments simple, and compounded by some conuenient humidity to a certaine consistence.

Distraction is a certaine diuulsion or disunion of diuers things before vnited & agreeing together (no respect of one existing or comprehended in another had) euery one remaining in his own nature.

Dinaporation

Divaporation is exhalation by fire of vapour, remaining in liquid substances, till all aquosity bee consumed or in more drie, but fumed by torrefaction.

Dulcification is the correction of minerrall medicaments by ablutions, and the like.

Duration is either when things mollified at the fire are set in a colde place to harden : or by boiling to an high consistence or admixtion of dry powder withthem, doe wax hard.

Elaberation is a manuall operation, whereby we extract from a substance the most excellent matter, the ignoble parts remooued.

Election is of simples according to time & season wherein they are gathered, and according to the region wherein they grow, that so the best may be had, and their vigor appear in vse according to expectation.

Elevation is subtiliation, when spirituall parts from the corporall, subtil from the grosse, the not fixt from the fixed, like smoke by the force of fire are eleuated, and adhering to the colde concaues of the Alymbecke, doe thicken and conuert into water.

Elixation is coction in *humido* by a moderate heat.

Elution is the preparation of common Bole, *Talcum*, *Crocus Martis*, *Terra Lemnia*, &c. by puluerization, calcination, lotion, &c.

Evaporation, See *Divaporation*.

Exaltation is an operation, whereby a medicament changed in his affections by gentle dissolution, is produced to an higher dignity of substance and vertue, and a greater degree of purity.

Exhalation is when the spirit of anie matter sollid, or in powder (being put into a platter, or any other conuenient vessell set on coales) is eleuated through heat, and vanisheth into the aire.

Expression is extraction by a presse, wherein hearbes, amigdales, &c. compressed, powre foorth their substances (as iuyces and oyle) in a liquid forme.

Extinction

Extinction is the suffocation of a matter fiery and hot into some humidity.

Extraction is a segregation of an essence from a corporeous concretion, by digestion in *Balneo his feces*, left in *fundo*, as *Rhubarbarum* in spirit of wine infused, manifesteth.

Fermentation is the exaltation of a massie substance, by the admission of *Fermentum*, which doth penetrate it wholly (his vertue distributed by a spirit) and inuerteth it into his owne nature.

Ferrumination is the joining together of a fracture in one & the same mettall, or of diuers mettals, by a minerall flux.

Filtration called percolation, by *Filtrum* a chymicall colum is subduction of thin aquosity in humid things, the thicke and oily substances resisting.

Fission, see *Section*.

Fixation is the assuefaction of volatill and spirituall bodies to fire by calcination, gentle and continuall decoction, frequent sublimation, solution, and coagulation often iterated, or by addition of a matter fixed, that so they may endure fire and not flie away.

Fraction is the breaking of some matter with ones hand, or with an instrument,

Frixion is the preparation of some medicaments, with oyle, butter, wine, vineger, &c. in a conuenient vessell, for the correcting of bad qualities in them.

Fulmination, deriued of *fulmen* a Lattin word, signifying fire breaking out of the clowdes, causing a sudden light great and bright, is a metallicall gradation, with excoction to an absolute perfection in *Cineritio*, whose purity is declared by an effulgent splendor.

Fumigation is calcination of mettals, by the sharp corroding vapour of *Mercury*, *Philosophers leade*, &c. boyling in a crucible, the mettals cut into plates, & either laid ouer the *Orificium* of the crucible, or hanged ouer the fume.

Fusion is liquation by heat violent or moderate, for the separation of the pure from the impure.

Gradation is an exaltation of mettals in the degree of affections, whereby waight, colour, and constancy are brought to an excellent measure, but the substance vnaltered: so golde is rubified, fixed and purified.

Granulation proper to mettals, by infusion on fire, and effusion into water is their comminution into *granula*, or very small drops like *Grana Paradisi*.

Humectation, see *Irrigation*.

Ignition is calcination, the fire reducing violent bodies into calx.

Illiquation is the commition of terrene bodies with metalline (as of *Lapis cadmia* with *cuprum*) but so as each retaines his owne substance.

Imbibition, a philosophicell operation is ablution, when liquour adioyned to a body is eleuated, and not finding vent, doth fall backe vpon the same, and often washeth it with humectations, so long as it being coagulated, can no more ascend, but remaineth wholly fixt.

Imbutien, see *Infusion* and *maceration*.

Inceration is the mixture of humidity with that which is dry, by a gentle and not hasty combustion to the consistence of mollified wax.

Incineration, see *Cinesation*.

Incorporation is a sudden addition of so much humidity to siccate matters as is required in the true consistence of a mixt body, past, or a masse.

Infection is the giuing of a tincture or colour to a medicament by immersion.

Infusion is the preparation of medicaments, cut or bruised in some humidity conuenient for the purpose, a little or longer time, whether it be an houre, one day or many, a weeke or a moneth, &c.

Inhumation is the setting of two pots (the head of the vppermost being very well couered and lured, but his botome boared full of little pin-holes, and sure fastened to that which is vnderneath in the ground, and burying them with earth to a certaine depth, hauing a circular fire made for

for distillatory transudation *per descensum*.

Insolation is the preparation of simple compound things by the heat of sunne in the summer, a gentle fire in the winter, *in Balneo*, or *in furno equino*.

Irrigation not much vnlike immersion is an aspersion of humidity vpon things that are to be dissolued, that so they may the more easily deliquate.

Lenigation is the reduction of any hard and ponderous matter by comminution, and diligent collision into fine powder, like Alcohol.

Limation proper to mettals (as Steele, iron, brasse, leade, &c.) is a preparation with a file, whereby they yeelde dust for diuers vses.

Liquation is when as that which shall bee made into one body, is dissolued, that it can flow abroad like waues.

Liquefaction is the dissolution of a minerall body, by the force of a very gentle fire.

Lotion is a preparation of medicaments in water, or some other liquour to remooue some euill and hurtfull, and to procure some good and profitable quality in them.

Lutation right worthy the name of *Sapientia*, is a medicine thin or thicke according to the heate and continuance of the fire, which stoppeth most exactly the *orificium* of the vessell, if no vapour must passe out.

Maceration is preparation of things not vnlike to *Humectation* in the manner of working, but in time, for some are infused 3. 4. or moe moneths, and some a shorter space.

Maturation is exaltation of a substance, rude and crude to that which is mature and perfect.

Mistion is such a composition of bodies, as inceration, incorporation, colliquation, and confusion doe declare.

Mollition is the beginning of liquation, yet some things are mollified (as onions, conchæ, corall, iuory, vngula, &c.) which cannot liquate.

Multiplication by projection, is of a body amalgamated from 7. to 10. from 10. to 50. from 50. to an 100. &c. according to the force and quantity of the tincture.

Mundification is the purgation of any matter by few or many operations from that which is sordid & vicious, that onely the most excellent may be admitted to the worke in hand.

Nutrition is the permission of humidity by little and little, for the alteration of the quality of the medicament.

Precipitation is when bodies corroded by *aqua fortis*, or *aqua Regia*, and dissolued into water, Salt Armoniacke or *Mercury* cast vpon them, either by the abstraction of the corroding vapour, are reuerberated into calx.

Probation is the examination of any matter, whereby we discerne what is excellent and perfect, and what corrupt.

Proiection is an exaltation cheefely in mettals, by a medicine cast vpon them which will suddenly penetrate and transfigure, giuing them another tincture.

Prole Nation is extraction by attenuation of subtrill parts, so that by the inclination of their rarified nature, they may be carried from the more grosse parts into a contrary place and there consist.

Purgation like to separation, is the clarification of impure liquour, hauing a thicke sedement and spume by decoction.

Putrifaction is the resolution of a mixt body by a naturall putritude in *calido humido*, or *fimo equino*, &c. whereby it may be made more excellent.

Quartation is the separation of golde and siluer mixt together by foue vnequall parts.

Quinta essentia is an absolute, pure and well digested medicine drawn from any substance, either animall, vegetable, or minerall.

Rasion is the scraping or paring of a thing, either for expurgation of that which is vnprofitable or for easier puluerization.

Reduction common to many operations doth restore a thing changed to his former estate and condition.

Repurgatio

Repurgation is, whereby mettals and other substances are purged from superfluities of another nature, adhering to them.

Resolution (the way to most excellent operations of Alchymie, causing both elements and cœlestiall essences to separate from their elementaris composition) of things commixt, is when the parts one with another (the vessell wherein they are, being very close stopped) depart; heat working, and resolving them by moisture.

Refinction is a gradation, whereby mettals or the like, candesied by fire, are restinguished in liquor of exaltation, and thereby made more noble, by how much a more excellent tincture and glasse is set vpon them.

Reuerberation is ignition reducing bodies (the fire quick reuerberating and reflecting) into a very subtile calx.

Section is the cutting of things great into lesser parts, for the present occasion.

Segregation is the solution of that which was whole and perfect into parts diuided, which flow not together as colliquables dissolued

Separation is, whereby parts distracted are separated euevery one alike hauing his seuerall being in himselfe.

Siccation is the drying vp of excrementall humiditie in bodies, before the fire, sunne, in the shade, or the like convenient place.

Solution, a principall part of chymicall practice, wherby the incorporation of things coagulated, is dissolued and attenuated.

Subduction is an abstraction of iuyces, oyles, and other liquid matters downward by percolation, filtration, and the like.

Sublimation is when that which is extracted is driuen to the sublime part of the vessell, and there subsisteth, or when as betweene that which is sublimed, and the dead head an aëry space doth intercede.

Subtiliation is dissolution, separating the subtile parts from the grosse.

Stratification, or *stratum superstratum* well known to Chymists, and used in cementation, is strewing of corroding powder, or the like, vpon plates of mettall by course.

Torrefaction like siccation, but more violent, is an operation drying, speedily, parching and scorching that which is to be dried before, or ouer the fire.

Transmutation is the mutation of a thing in substance, colour, or quality.

Transudation is when in descensory distillation, the essence prouoked, sweateth through, and is carried *guttatim* into the receiuer.

Vitrification is *Combustion*, conuerting calx and cineres into transparant glasse.

Ustion is a preparation of things for easier puluerization, mutation of colour, faculty, &c. by burning them in a crucible, or in the fire.

The Epilogue.

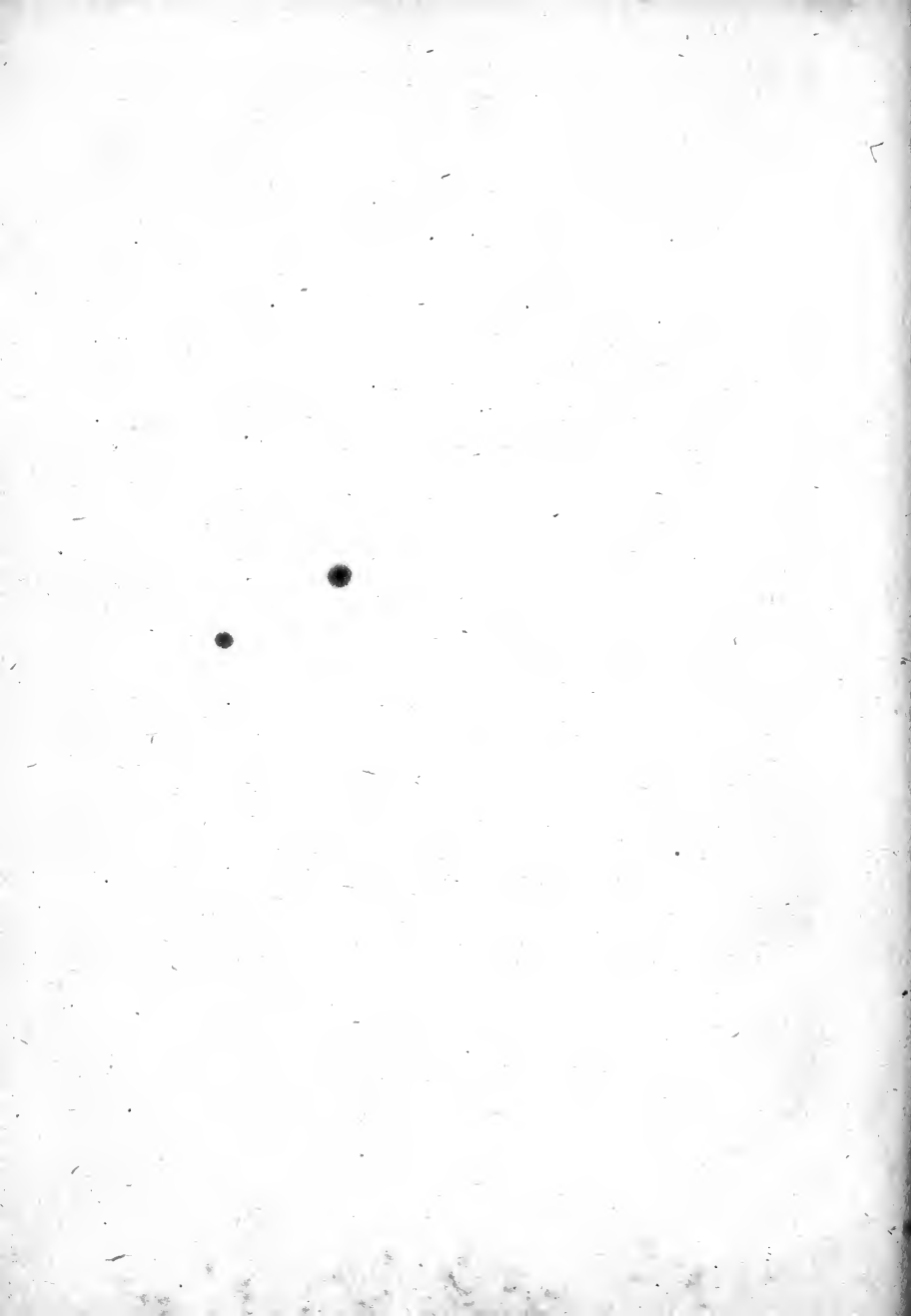
Gentle Reader, I had intended much more in my Gloue to young men, to haue written by way of instruction, namely, a Dispensatory touching the precedent particulars, with somewhat also concerning the cure of the French Disease, with symptomes thereof, namely the Gonorrœa, the Bubo veneria, the Hernia Humoralis, &c. But time hath ouertaken mee, so that now I am forced to pause a little, and to see what acceptance this first part hath in the world, and accordingly I will haste to the next.

Thine in the Lord,

J. W.

FINIS.








THE TABLE.

A

| | | |
|----------------------------------------------------------------------------------|--------------------------|------------|
|  | <i>Blution.</i> | 338 |
| | <i>Absinthium herba.</i> | 120 |
| | <i>Acetum Rosarum.</i> | 64 |
| | <i>Acetum vini.</i> | 64 65. 313 |

| | | |
|----------------------------|---|-----|
| <i>Acetum commune,</i> | } | 313 |
| <i>Acetum distillatum.</i> | | |

Aer. 313

Æs. 316

Æs viride. 114

Æstas. 317

Agaricum, 94

Albation, 338

Album Græcum, 122

Albumen Ovis. 316

Alcolymus, 338

Aloes, 94

Alumen, 123. 313. Combustum, 313

Et plumosum, 316

Amalgama, 316

Amalgazatio, 338

| | | |
|-----------------|------------|-------|
| <i>Amigdale</i> | } Dulces } | } 102 |
| | | |

Amputation, vide dismembring

Amylum. 107

Angelica water. 57. 58

Aniseed water. 57

Antimonium }

Animon: vitri }

Animon: regulus, }

Annus. 316

Apostumes of the mouth how opened, 2

Apostumes incised by causticke, 63

Apostumes and matter must not be so dainely forced out, nor kept in by tents, 63

Apostume what it is, 147

Apostumes times, 147. 148. 149

Apostume how to repell; 151. 152

Apostume broken by a causticke, 152

Apostumes cures, natures benefite, 153. 154. 155

See more in tumors.

Aqua, 316

Aqua Cardui benedicti, 38

Aqua Calestis, 54

Aqua Cinnamon, 55

Aqua Doctoris Stephani, 55

Aq. Falopij. 60

V v

Aq. Fer.

The Table.

| | | | | |
|-----------------------------------------|------------------|---------------------------------------------------------------------------------------------------------|--------------------------------|-----|
| <i>Caus ticke liquid,</i> | 63 | <i>Compositio,</i> | 348 | |
| <i>Caus ticke stone,</i> | 63.67.68.276 | <i>Concretio,</i> | 82.83 | |
| <i>Cementare,</i> | 317 | <i>Confectio</i> { <i>Hamech,</i> | 84 | |
| <i>Cementatio,</i> | 347 | <i>Alchermes,</i> | | |
| <i>Cementum,</i> | | | | |
| <i>Cera.</i> | 317 | <i>Confrictio.</i> | | |
| <i>Ceracitrina,</i> | 108.109 | <i>Confusio.</i> | | |
| <i>Ceratio,</i> | 347 | <i>Congelatio,</i> | | |
| <i>Cerassa,</i> | 112.113.317 | <i>Conglutinatio,</i> | | |
| <i>Chasing-dish,</i> | 27 | { <i>Anthos,</i> <i>Citoniorum,</i> <i>Liniula,</i> <i>Prunellorum,</i> <i>Rosarum rub:</i> | | |
| <i>Chalibi,</i> | 317 | | <i>Conserua</i> | 81 |
| <i>Characters usuall with Chymists,</i> | | | | 82 |
| 312.313. &c | | | | 80 |
| <i>Cinefactio,</i> | 347 | <i>Contusion,</i> | 349 | |
| <i>Cineres ligni,</i> | 317 | <i>Convulsion,</i> | 130 | |
| <i>Cinnabrium,</i> | 115.300.301.317 | <i>Copperas, vide Vurioll,</i> | 112 | |
| <i>Cinnamomum,</i> | 103 | <i>Copper, vide Venus.</i> | | |
| <i>Circulatio,</i> | 347 | <i>Corallus</i> { <i>Albus,</i> | 318. | |
| <i>Clarificatio,</i> | 347 | <i>Ruber,</i> | | |
| <i>Clours,</i> | 37 | <i>Cornu Cervi,</i> | 95 | |
| <i>Close stoole,</i> | 38.39.205 | <i>Corrosio,</i> | 349 | |
| <i>Coadunatio,</i> | 3 | <i>Cortex granatorum,</i> | 98 | |
| <i>Coagmentatio,</i> | | <i>Costiuenes,</i> | 14 | |
| <i>Coagulatio</i> | 347 | <i>Cribratio,</i> | 349 | |
| <i>Coctio,</i> | | | <i>Crocus.</i> | 97 |
| <i>Cohobatio,</i> | | | <i>Crocus</i> { <i>Martis,</i> | 318 |
| <i>Colatio,</i> | 348 | <i>Veneris,</i> | | |
| <i>Colcothar,</i> | 285.286.318 | <i>Crowes bil,</i> | 11.17 | |
| <i>Collica Passio what it is</i> | 236. | <i>Cupping glasses,</i> | 33 | |
| <i>what it is</i> | 236. | <i>Cupping,</i> | 33.34 | |
| <i>signes,</i> | 237.238. &c | <i>Cups for Physicall potions,</i> | 37 | |
| <i>cure,</i> | 238.239.240.241. | | | |
| <i>Colliquatio,</i> | 348 | | | |
| <i>Colophenia,</i> | 107 | D | | |
| <i>Coloratio,</i> | 348 | <i>Decoctio,</i> | 318 | |
| <i>Combustio,</i> | 348 | <i>Deliquatio</i> | 349 | |
| <i>Comminutio,</i> | | | | |
| <i>Complexio,</i> | | <i>Deliquium</i> | | |
| | | V v 2 | Desces. | |

The Table.

| | | | | | | | | |
|-----------------------------------|-------------------------------|-----|--|--|----------------------------------------|--------|-------------------------------------|------------------------------------|
| Descension | } | | | | Elevation, | | | |
| Despumatō. | } | 349 | | | Elixation, | 342 | | |
| Dens Elephantinus, | | 86 | | | Elution, | | | |
| Diacedion, | | 87 | | | Emplestrum | } | | |
| Diamoron, | | 80 | | | | | Callidum, | } 43 |
| Diapennum simplex, | | 82 | | | | | De lapide Calaminari, | |
| The fluxe Diarhea, and cure, | | 204 | | | | | De Minio, | |
| 205. 206. 217. 218. 219. 220. 221 | | | | | | | Diacelsitheos, | 41. 42 |
| Diascordium, | | 86 | | | | | Diachilon | } Cura gummis, } 41 & Paruum, } |
| Diatrion piperion, | | 83 | | | | | Meliloti & splene, | |
| Dies, | | 318 | | | | | Oxicroceum, | 42 |
| Diet pot, | | 35 | | | | | Stipticum Paracelsi, | 40 41 |
| Difflation, | | 349 | | | | | Esker when to be pricked in an Apo- | |
| Digestion, | 318 | 349 | | | stume, | 68 | | |
| Dislocatiō, | 167. 168. 169. 170. 171 | | | | Esker lying long, is a good signe, | 68 | | |
| Dismembriug, | 171. 172. 173. 174 | | | | Eskers fall must not be hastned, where | | | |
| | 175. 176. 177 | | | | nature hath breathing, | 68 | | |
| Dissolution, | | 349 | | | Esker cannot by Art be kept in an A- | | | |
| Distillation, | 318. 349 | | | | postume, | 68. 69 | | |
| Distraction, | | 349 | | | Evaporation, | 342 | | |
| Duaperation, | | 342 | | | Euphorbium, | 95 | | |
| A Drinke for the Cullenture, | | 36 | | | Exaltation, | | | |
| A Drinke for the Laske, | | 36 | | | Exhalation | } 342 | | |
| Dulcificatiō | | | | | Expressiō, | | | |
| Duration, | | 342 | | | Extinctiō, Extractiō, | 343. | | |
| Dysenteria and cure, | 206. 207. 108 | | | | | | | |
| | 209. 210 111. 212. 213. 216 | | | | | | | |
| | 217. 218. 219. 220. 221. 222. | | | | | | | |

E

| | | | | | | |
|-------------------|---|---------------|--|--|--------------------------------------|-------------|
| Eare pickers, | | 17 | | | | |
| Elaboration, | | 342 | | | Farina | |
| Election, | | 342 | | | | } 117. 118. |
| | | | | | | |
| | | | | | Hordei, | |
| | | | | | Tritici, | |
| | | | | | Volatilis, | |
| Elecluarium | } | 82 | | | Fermentation, Ferrumination, | 343 |
| Diacatholicon, | | 82 | | | What a Fevor is, and the cure in ge- | |
| Diaphenicon | | 84 | | | nerall, | 129. 130 |
| De Ouo, | | 84 | | | Files with their uses, | 14. 15. 17 |
| De succo Rosarum, | | 83 | | | Filtrum, | 319 |
| Elementa, | | 309. 310. 319 | | | Filtera- | |

The Table.

| | | | |
|----------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------|-----------|
| Filteratio, | 343 | Ginger, vide Zinziber. | |
| Funus, | 319 | Glasses, | 37 |
| Fiffion, | 343 | A Glifter pot, | 19 |
| Fiftulaes and the cure, | 157.158 | A Glifter how to prepare and admini- ster it, | 19.20.190 |
| Fixatio, | 319.343 | Gould, vide Sol. | |
| A medicine for the fluxe approved, | 39 | Goose bills, | 11 |
| Flos, | 319 | Gradation, | 344 |
| Flores | } | Anthos, | 115 |
| | | Balustiarum, | 115.116 |
| | | Centauri, | 116.117 |
| | | Chamomeli, | 116 |
| | | Hyperici, | 117 |
| | | Mecliloti, | 116 |
| | | Sambuci, | 117 |
| The Fluxes of the belly, vide Liente- ria Diarrhaea, Dysenteria. | | Granatorum cortex, vide Cortex Granatorum, | 344 |
| The signes and causes of the Fluxes of the belly, | 216.217.218 | Granulation, | 14.15.17 |
| Folia Senna, | 93 | Grauers, | 37 |
| Forcers, | 14.15 | Gray paper, | 98 |
| Forceps, | 26 | Guaicum lignum, } Guaici cortex, } | 320 |
| Fraction, | 343 | Gummi, | 105 |
| The cure of Fractures | 161.162.163.164.165.166.167 | Ammoniacum, | 105.106 |
| Frixion, | 343 | Galbanum, | 104 |
| Fulmination, | 343 | Guaici } Opoponari, } | 105 |
| Fumigation, | 343 | Sagapenum, | 107 |
| The falling downe of the Fundament, to whom it is most subiect, 244. the causes, 245. the cure, 245. 246 | 247 | Tragacanthum, | 107 |
| A Funnell, | 37 | Gums ouer grown and rotten, their remedies, | 282 |
| Furfur Tritici, | 118 | Guttigamba, vide Cambogia. | |
| Fufion, | 343 | H | |
| G | | Hamules, | 17 |
| Galle, | 111 | Hemorrhagia, 129. & vide bleeding at nose. | |
| | | Hermodactili, | 95 |
| | | Hookes, | 17 |
| | | Hordeum } Commune, } } Gallicum, } | 199 |
| | | Humection, | 344 |
| | | Hyems, | 320 |
| | | U v 3 | Ignis |

The Table.

Knives for incision,

1.2.31

I

| | |
|---------------------------------------------------------------------------------------------------------------------------|-------|
| <i>Ignis,</i> | 320 |
| <i>Ignition,</i> | 344 |
| <i>Iliaca passio, what it is 232. the causes</i> <i>232.233. the signes, 333.334. the</i> <i>cure, 334.335.336.</i> | |
| <i>Illiquation,</i> | } 344 |
| <i>Imbibition,</i> | |
| <i>Imbution,</i> | |
| <i>Incarnative medicaments,</i> | 131 |
| <i>Inceration,</i> | } 344 |
| <i>Incineration,</i> | |
| <i>Incision,</i> | 1.2 |
| <i>Incision by Causticke,</i> | 1 |
| <i>The forme of Incision by a causticke</i> <i>stone,</i> | 68 |
| <i>Incke,</i> | 37 |
| <i>Incorporation,</i> | 344 |
| <i>Infection,</i> | } 344 |
| <i>Infusion,</i> | |
| <i>Inhumation,</i> | |
| <i>The deliuey of an injection into the</i> <i>yard,</i> | 21.22 |
| <i>Iniections of Mercury not good for</i> <i>the yard.</i> | 22 |
| <i>Insolation,</i> | 345 |
| <i>What intemperature is,</i> | 129 |
| <i>Iron, vide Mars,</i> | |
| <i>Irons to Cauterize,</i> | 10 |
| <i>Irrigation,</i> | 345 |
| <i>Jupiter,</i> | 312 |

K

Knives for dismembriug,

| | | | |
|------------------------------------|-----------------------------------|---------------------|-------------|
| | | L | |
| <i>Laudanum,</i> | | | 106 |
| <i>Lanthorne,</i> | | | 37 |
| | | <i>Calaminaris,</i> | 320 |
| | | <i>Granates,</i> | 321 |
| | | <i>Hematites,</i> | 321 |
| <i>Lapis</i> | | <i>Magnetis,</i> | 320 |
| | | <i>Prunella,</i> | 320 |
| | | <i>Sabulosus,</i> | 321 |
| <i>Latres</i> | | <i>Integri,</i> | } 321 |
| | | <i>Cibrati,</i> | |
| <i>Laudanum Opiatum Paracelsi,</i> | 86. | | |
| | 228. 229. the vertues, 225. 226. | | |
| | the dose, 226. the way to admini- | | |
| | ster it, 226. 227. How to prepare | | |
| | the ingrediences of it, 229. 230. | | |
| | 231. and how to discern the true | | |
| | from false, | 231. 232. | |
| <i>A Launcet,</i> | | | 28 |
| <i>Lead, vide Saturnus.</i> | | | |
| <i>A Lenatorie,</i> | | | 7.32. |
| <i>Leuigatio,</i> | | | 345 |
| <i>Limation.</i> | | | 345 |
| <i>Limatura,</i> | | | 321 |
| <i>Limon iuice,</i> | | | 185 |
| <i>Limon-water.</i> | | | 36 |
| <i>Linimentum Arcei,</i> | | | 51 |
| <i>Liquation,</i> | | } 345 | |
| <i>Liquefaction,</i> | | | |
| <i>Liqueritia,</i> | | | 99 |
| <i>Lixiuium</i> | | <i>Forte</i> | } 63.321 |
| | | <i>Commune</i> | |
| <i>Lotion commune,</i> | | | 62. & 345 |
| <i>Lues Venerea,</i> | | | 320 |
| | | | <i>Luna</i> |

The Table.

| | | | | |
|----------------------------------------------|---------------------------|-------------------------------|-----------------------------------------------|----------------------------------------------|
| <i>Luna</i> 313. & { <i>Crescens</i> } 320 | } { <i>Decrescens</i> , } | 320 | } <i>Sublimatus</i> , 115. 298. 299. 306 | |
| | | | | 313. 322 |
| <i>Lupini</i> , | | 109 | } <i>Veneris</i> , | |
| <i>Lutation</i> , | | 345 | | 323 |
| | | | <i>Mercuries</i> praise in generall, 301. 302 | |
| <i>Lutum</i> { <i>Sapientie</i> } 321 | } { <i>Commune</i> , } | 321 | 303. 304. 305. 306 | |
| | | | | <i>Mithridatum</i> <i>Damocratis</i> , 84 85 |
| <i>Lyenteria</i> a fluxe, the cure, 212. 213 | | 214. 215. 216. 217. 218. 219. | } <i>The 7. principall Mettals</i> with their | |
| | | 220 221. | | <i>proper vertues</i> , 308. 309. & their |
| | | | <i>Charaacters</i> , | |
| | | | 312. 313 | |
| <i>Lytbargiriū</i> { <i>Argenti</i> , | } { <i>Auri</i> } | 113. 322 | <i>Minium</i> , | |
| | | | | 113. 323 |
| | | | | <i>Mini Water</i> , |
| | | | 58 | |
| | | | <i>Minutum</i> , | |
| | | | 323 | |
| | | | <i>Mystien</i> , | |
| | | | 345 | |
| | | | <i>Mollition</i> , | |
| | | | 345 | |
| | | | <i>Morter and Pestell</i> , | |
| | | | 37 | |
| | | | <i>Mullet</i> , | |
| | | | 17 | |
| | | | <i>Multiplication</i> , | |
| | | | 345 | |
| | | | <i>Mummiā</i> , | |
| | | | 109 | |
| | | | <i>Mundification</i> , | |
| | | | 346. | |
| | | | <i>Myrabolans</i> , | |
| | | | 96 | |
| | | | <i>Myrrha</i> , | |
| | | | 106 | |

M

| | | | | |
|-------------------------------|----------------------|---------|----------------------------------|------|
| <i>Macis</i> , | | 103 | <i>Mullet</i> , | 17 |
| <i>Mecceration</i> , | | 345 | <i>Multiplication</i> , | 345 |
| <i>A. Mallet</i> , | | 8 | <i>Mummiā</i> , | 109 |
| <i>Marchasita</i> , | | 322 | <i>Mundification</i> , | 346. |
| <i>Manna</i> , | | 312 | <i>Myrabolans</i> , | 96 |
| <i>Masticke</i> , | | 106 | <i>Myrrha</i> , | 106 |
| <i>Maturation</i> , | | 345 | | |
| <i>Mel simplex</i> , | | 53. 323 | | |
| <i>Mel</i> { <i>Saponis</i> , | } { <i>Rosarum</i> , | 47. 48 | | |
| | | | | 79 |
| <i>Melissa</i> , | | 120 | <i>ster Siring</i> , | 18 |
| <i>Mellilotum</i> , | | 119 | <i>Nippers for Dismembring</i> , | 8 |
| <i>Mensis</i> , | | 323 | <i>Nutrition</i> , | 346 |
| <i>Mentha</i> , | | 119 | <i>Nux Moschata</i> , | 104. |
| <i>Mercurius</i> , | | 322 | | |

N

| | | | | | | | | | | | | | | | |
|------------------------|--------------------|-------------------|---------------------|----------------------------------------------|--------------------|--------------------|------------------------|-----------------------|----------------------|----------------------|------------------------|---------------|---------------|---------------|-----|
| } { <i>Mercurius</i> } | } { <i>Iouis</i> , | } { <i>Luna</i> , | } { <i>Martis</i> , | } { <i>Præcipitatus</i> , 115. 299. 300. 306 | } { <i>Oleum</i> , | } { <i>Oleum</i> } | } { <i>Abſynthij</i> } | } { <i>Communis</i> , | } { <i>Chymici</i> , | } { <i>Dulcium</i> , | } { <i>Auzararum</i> , | } { <i>73</i> | } { <i>77</i> | } { <i>74</i> | |
| | | | | | | | | | | | | | | | 323 |
| | | | | | 322 | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

O

Anethi-

The Table.

| | | | | | | | |
|-------------------|----------------|-----------------------------------------------------------|--------------------------------------------|--------------|------------|----------------|---------|
| | Anethinum, | 69 | Phlegma Vitrioli, | 279. 324 | | | |
| | Anisi, | 76 | Phlemes, | 15. 17 | | | |
| | Antimonij, | 77 | Piger Henricus, | 324 | | | |
| | Agarici, | 71 | | | | | |
| | Chamomalinum, | 70 | } | Aggregatina, | | | |
| | Gariophylorum, | 75 | } | Aurca, | | | |
| | Hypericon | 70 | Pilule | Cambogia, | | | |
| | | 71 | | Cochie, | | | |
| | Juniperinum, | 76 | } | Euphorbij, | | | |
| | Laurinum, | 72 | } | Puffi. | | | |
| | Liliorum, | 70 | How to malaxe Pills hardened and dried up, | | | | |
| | Lini, | 72 | | 187 | | | |
| Oleum | Lumbricorum, | 70 | Piper mirum, | 103 | | | |
| | Macis, | 75 | Pipkins, | 37 | | | |
| | Origani, | 77 | Pix | { | Burgundia | | |
| | Ouorum, | 72 | | | | } | Græca |
| | Papanerinum, | 73 | | | | | Naualis |
| | Petrolei, | 73 | A Plaster boxe, | | 26 | | |
| | Philosophorum, | 75 | Plumbum | } | Album, | | |
| | Rosarum, | 69 | | | } | Philosophorum, | |
| | Sambucinum, | 72 | | | | Vstum, | |
| | Scorpionum, | 73 | Polypodium, | | 95 | | |
| | Spica, | 76 | Porringers for blond, | | 34. 35 | | |
| | Succini. | 77 | Gallypots, | | 37 | | |
| | Sulphuris, | 75 | Præcipation, | | 346 | | |
| | Terebinthina, | 76 | Probation, | | 346 | | |
| | Vitrioli, | 74 | Probes, | | 12. 13. 26 | | |
| | 281. 282. 283 | Procedentia Ani, videt the falling down of the fundament. | | | | | |
| Opium, | 97 | Projection | | } | | | |
| Oximell simplex, | 79 | Prolestation, | | | | | |
| | P | Pullicans, | | 14. 15 | | | |
| Pæces, | 14. 15 | Pulpa Tamerinderum, | | 89 | | | |
| A Pale of Brasse, | 39. 205. 206 | Puluis, | | 324 | | | |
| Philonium | } | 87 | Puluis Arthreticus | | | | |
| | | 87 | Punches, | | | | |
| | | 87 | Purgation, | | | | |
| | | | | 14. 15 | | | |
| | | | | 346 | | | |
| | | | | Puri- | | | |

The Table.

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Putrificare, 324 Putrefaction, 324.346</p> <p style="text-align: center; font-size: 2em;">Q</p> <p>Quartations, 346 Quicke siluer his different operations, 346. vide Mercurie.</p> <p>Quils for stitching, 27.37</p> <p>Quinta { Essentia, 324.346 Essentia vini, 325</p> <p style="text-align: center; font-size: 1.5em;">R</p> <p>Radix { Althea, 121 Angelica, 122 China, 97 Consolida, 121.122 Pirethuum, 121.122 Raphanus siluestris, 122</p> <p>Rafson, 346 A Rasor, 3 Rauens bills, 11 Realger, 325 Reductio, 346 Repurgation, 347 Resina, 108 Resolution, 347 Restriction, 347 A Restrictiue, 162 Retortum, 325 Reuerberation, 325.347 Rhabarbarum, 94 Rob { Berberum, } 81 Citoniorum, }</p> <p>Rosa solis, 55 Rosa rubra, 116 Rosemarie, 119 Rosemary water, 56</p> <p style="text-align: center; font-size: 1.5em;">S</p> <p>Sabina, 121</p> | <p>Saccharum, 102 Absinthij, 69.286 Alkali } Amoniacus } 526 Colcotharis, }</p> <p>Sal { Communis, 325 Gemme, 69.272.325 Nitri, 69.195.286.287.289 Petre, 275.326 Tartari, 326</p> <p>Salt, the antiquity, 250. the kinds, 271 What Salt is good in meates, 272 Salts necessity and utility, 272.273 Salts temperature, 274.275 Salts healing vertues, 275.276 Salts praise, 288.289.290.291</p> <p>Salvia, 119 Saluatorie, 24.25 Sarsaperilla, 97.98 Sassafras water, 56 Saturnus, 312 A Saw for dismembring, 7 Sawe for the head, 7 Scammonium, 94 Scuruie what it is, 178. the names of it, 179. the signes, 181. 182. the cure, 183.184.185.186.187.188. 189.190.191. the cure by lotions, 191.192.193. by oyles, 193. by vnguents, 193.194.196. the cure for the vlcers of the Scuruie, 197. 198.199.200.201.</p> <p>Searces, 37 Section, 347 Segregation, 347</p> <p style="text-align: center;">X x</p> <p style="text-align: right;">Anethi</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The Table.

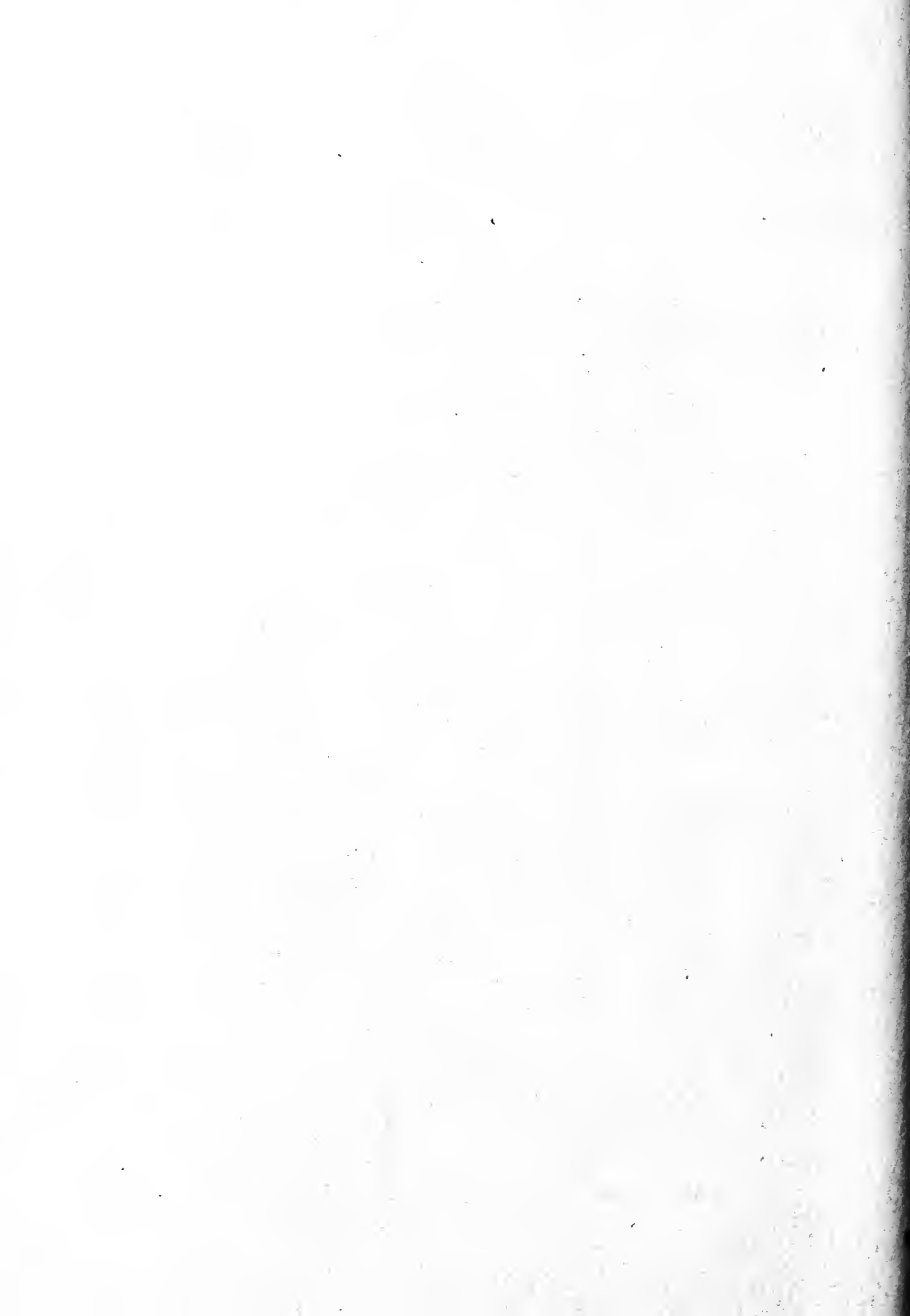
| | | | | |
|-------------|---------------------------|-----------|-----------------------------------------|---------------|
| Semen | Anethi, | 201 | Spunges, | 39 |
| | Anisi, | 99 | Stercus caninum, | 122 |
| | Cervi, } Camini, } | 100 | Stibium. | 112 |
| | Foeniculi, | 99.100 | Of Stitching, | 27 |
| | Fenigraci, | 100 | How to finde out the stone in the blad- | |
| | Lini, | 100 | der, | 23 |
| | Papaveris, | 101 | Storkes bills, | 11 |
| | Petroselini, | 100 | Strainers, | 37 |
| Semen | Plantaginis, | 101 | Stratification, | 348 |
| | Quatuor frigid, ma, | 101 | Stratum super stratum, | 327 |
| A Sering | Quatuor frigid, min, | 102 | Styrax | 106.107 |
| | Large, | 18.19.20 | } Calamite, } } Liquida, } | |
| Separation, | Small, | 21 | Subduction, | 347 |
| | Sheeres for incision, | 347 | Sublimare, | 325 |
| Siccation. | Sigsillum Hermetis, | 12 | Sublimation, } | 247 |
| | Sikes, | 347 | Subtiliation, } | |
| Silke, | Succinum, | 327 | Succinum, | 108 |
| | Silver, vide Luna. | 17 | Succinum | 426 |
| Sizers, | } Album, } | 27 | } Citrinum, } | |
| | Skeller, | 26 | } Absinthij, } | 88 |
| Sol, | } Acacia, } | 37 | } Glicirrhizæ, } | |
| | Solution, | 312 | Limoniorum, | 89.194 |
| Sopo, | Sulphur, | 327.347 | Sulphur, | 112.325 |
| | Sorrrell, | 326 | How diversly Sulphur is taken, | 292 |
| Spatulae, | the divers names thereof, | 195 | The praise of Sulphur, | 293.294 |
| | Spatula Mundani, | 13.26 | Sulphur Philosophorum, | 295.296.297 |
| Speculum | } Ani, } | 14 | Sulphur | 325. vide ol. |
| | } Lingna, } | 9 | Sulphuris. | |
| Spiritus | } Oris, } | 9 | Sumach, | 110 |
| | } Terebinthina, } | 66.67 | What Syrupe is, | 129 |
| Splints, | } Vini, } | 65.66.326 | } Absynthij, } | |
| | } Vitrioli, } | 66 | } Cinamoni, } | 78 |
| Spodium, | Syrupus | 33 | } Limonum, } | |
| | 110. | 110. | } Papaveris, } | 80 |
| | | | } Prunellorum, } | |
| | | | | 80 |
| | | | | Raphani |

The Table.

| | | | | |
|------------------------------------------|-------------------|---------------------------------------|---------------------------------------|---------|
| Inguentibus | Contra Ignem, | 48 | Wounds penetrating are not to be kept | |
| | Martiaton, | 52 | open long, | 32 |
| | De Mercurio, | 49.50.51 | What a Wound is, | 125 |
| | Pectorale, | 46 | The diuers names of wounds, | 125 |
| | Populeon, | 47.194 | The diuers formes of wounds, | 125 |
| | Potabile, | 49 | How to fide out a wound, | 125.126 |
| | Rosatam, | 46 | The symptoms of wounds internali, | |
| | Contra Scorbutam, | 48 | | 126.127 |
| | Vrina, | 328 | The cure of wounds, | 128.129 |
| | Ustum, | 348 | The accidents cōmon to wounds, | 129 |
| Uua-Passa. | 102 | The cure of wounds in the braine with | | |
| | | with the symptoms, | 130 | |
| | | The cure of wounds contused, | 130.131 | |
| The immoderate use of hotte-waters | | of wounds venemous, | 132 | |
| hurteth, | 98 | Of Wounds in the Arteries, | 131.132 | |
| To whom hot waters belong, | 58.59 | Nerues and ligaments. | 133. 134 | |
| The common dose of hot waters, | 59 | and Head, | 134.135. 136. Face, | |
| The fittest time to take hotte waters in | | | 137. Nose, Eares, Eyes, Necke, | |
| | 59 | | Shoulder, Armes, 138. Hands, 138 | |
| The diuers manner of taking hott wa- | | | 139. Therax, 139. Belly, 139.140 | |
| ters, | 59 | | Scrotum, Hippe, Knee, Anckle, | |
| Hot Waters may bee used in Glisters, | | | Footte, and Soale of the footte, 140. | |
| | 59 | The cure of Wounds by Gunshot, | 140 | |
| Waxe lights, | 22.23.24.27 | | 141.142.143.144.145. | |
| Weights and scales, | 37.38 | The difference betweene wounds by | | |
| White paper, | 37 | gunshot, & contused Wounds, | 142 | |
| Worme-wood Water, | 57 | How to preuent putrefaction in | | |
| New Wounds must auoide corrodng | | wounds. | 143 | |
| medicines, | 31 | | | |
| How to siccatrize and cure new | | | | |
| wounds, | 31 | Zinziber, | 104 | |

Viue, vale, Lector. Si quid scis rectius istis,
Candidus imperti: si non his vttere gratus.





COUNTWAY LIBRARY OF MEDICINE

RD
30
185

RARE BOOKS DEPARTMENT

GREEN DRAGON
BINDERY
C.A. & W.W.
Carpenter, Jr.
Shrewsbury, MA

