The surgions mate, or a treatise discovering ... 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 ... with a briefe explanation of sal, sulphur, and mercury; with certaine characters, and tearmes of arte / [John Woodall].

Contributors

Woodall, John, 1556?-1643.

Publication/Creation

London : E. Griffin for L. Lisle, 1617.

Persistent URL

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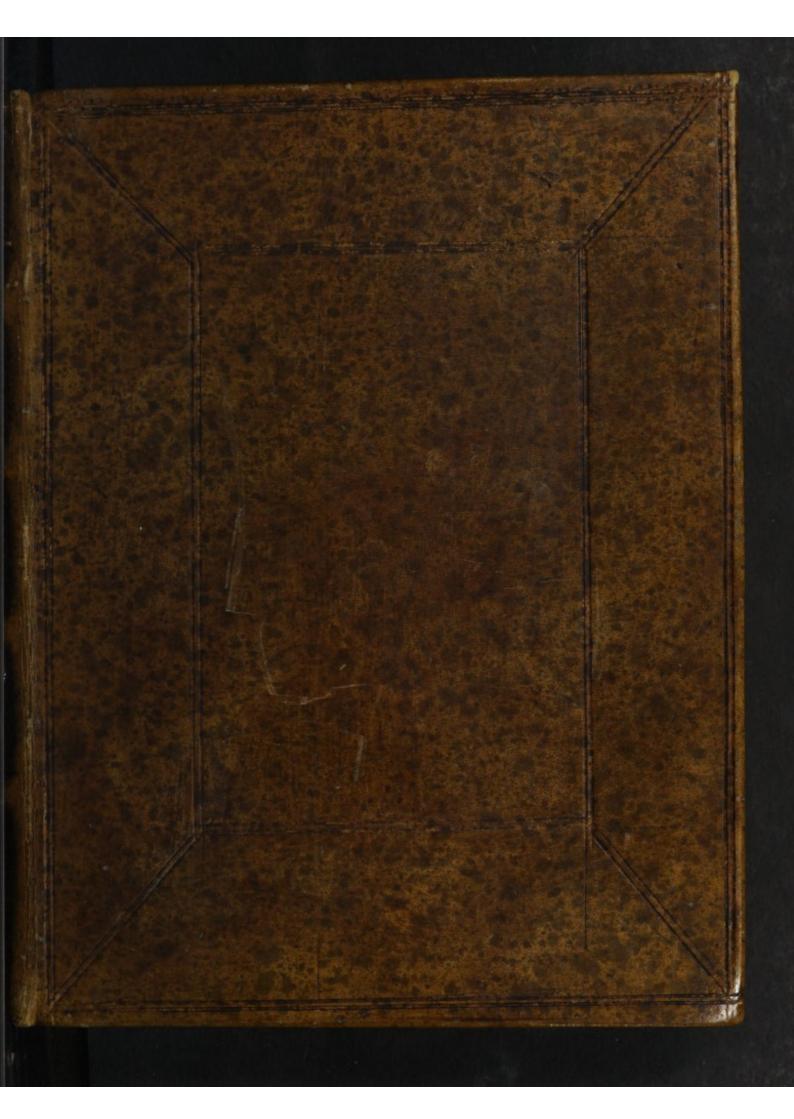
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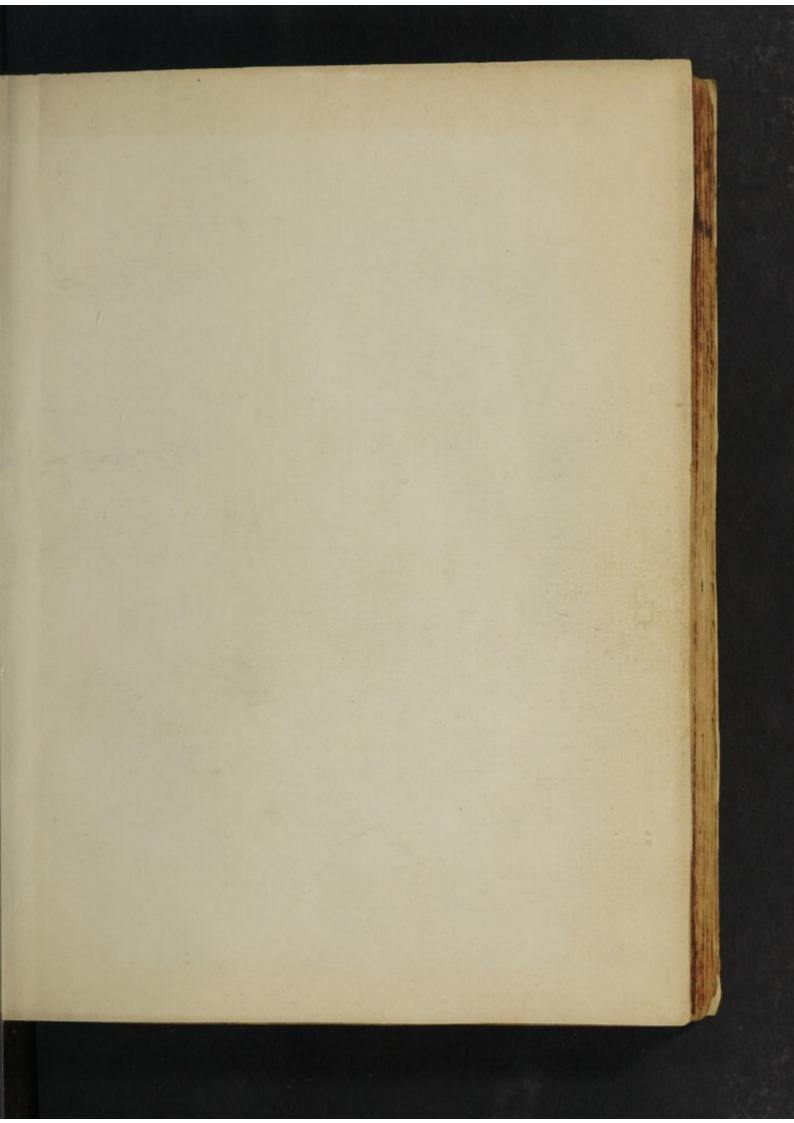


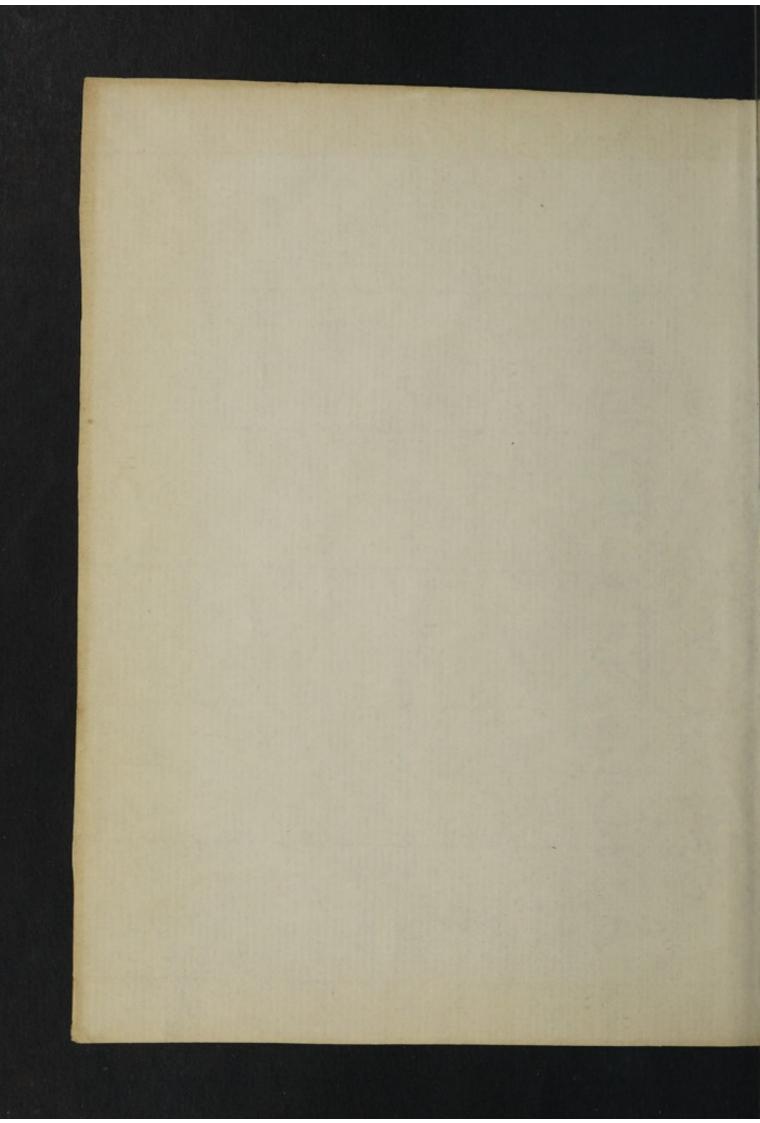


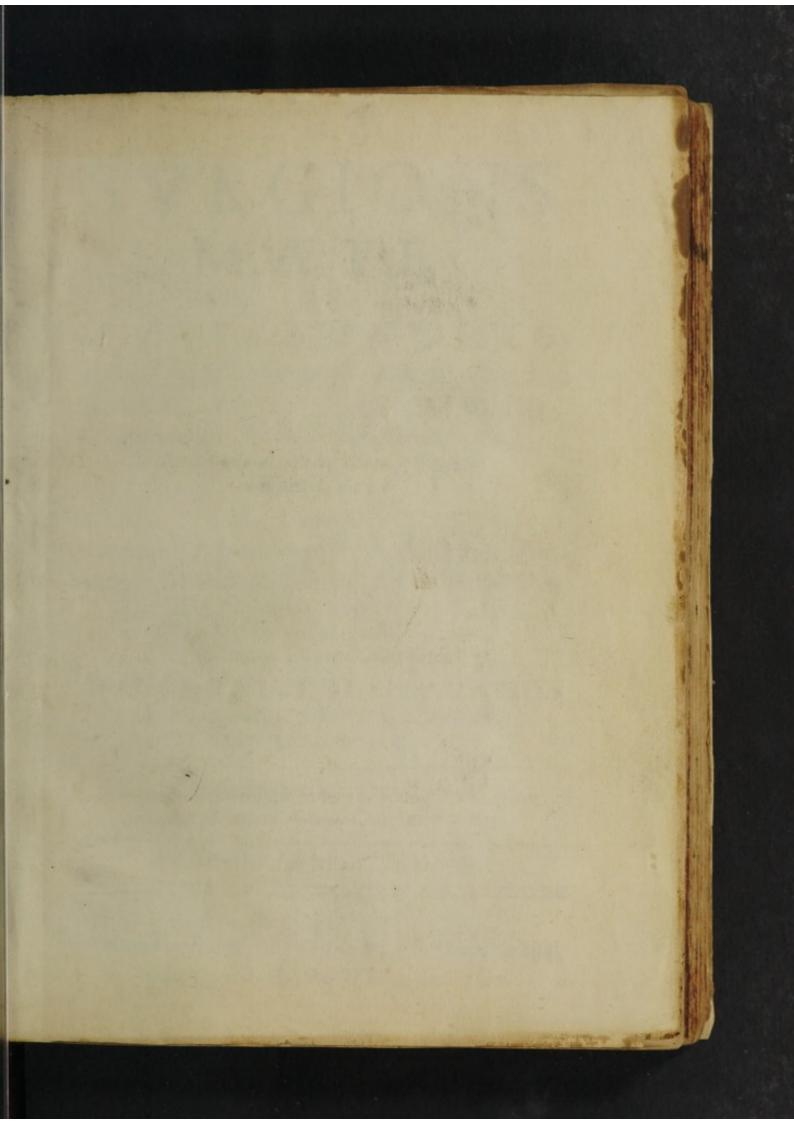


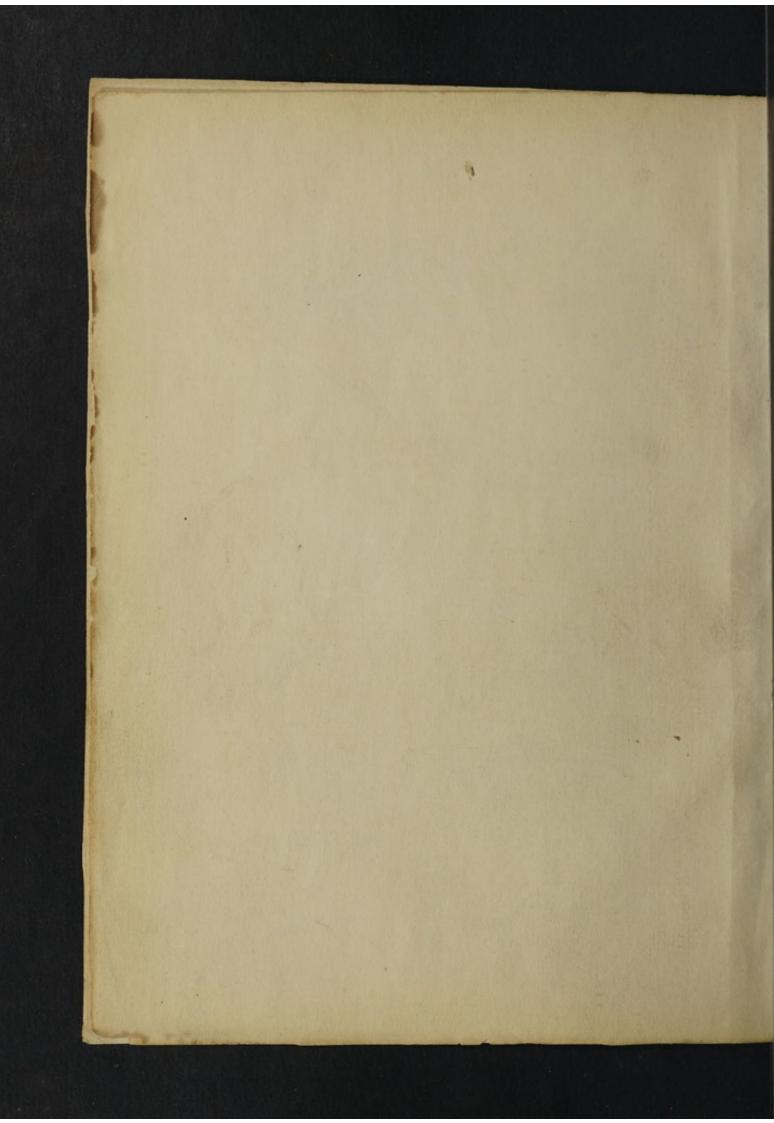


6774 B Wanting Digs. N2, X3, Cc4, Ff2, Tt4 (blank) Engr port of Sir Thomas Smythe not present, but stub appearently between 9384 Conly present in 2 copies according to Hirkup Conly present in 2 copies according to Hirkup Copy brought in by RD Gurney 11/9/87 has Tt 4 (blank), also a folding plate of instruments between pp38/39 Similar but not identical to plate in 2 ed (page seps differ)









THE SVRGIONS MATE, OR

A TREATISE DISCOuering faithfully and plainely the due contents of the SVRGIONS (best, the voses of the Instruments, the vertues and operations of the Medicines, the cures of the most frequent difeases at SEA:

Namely

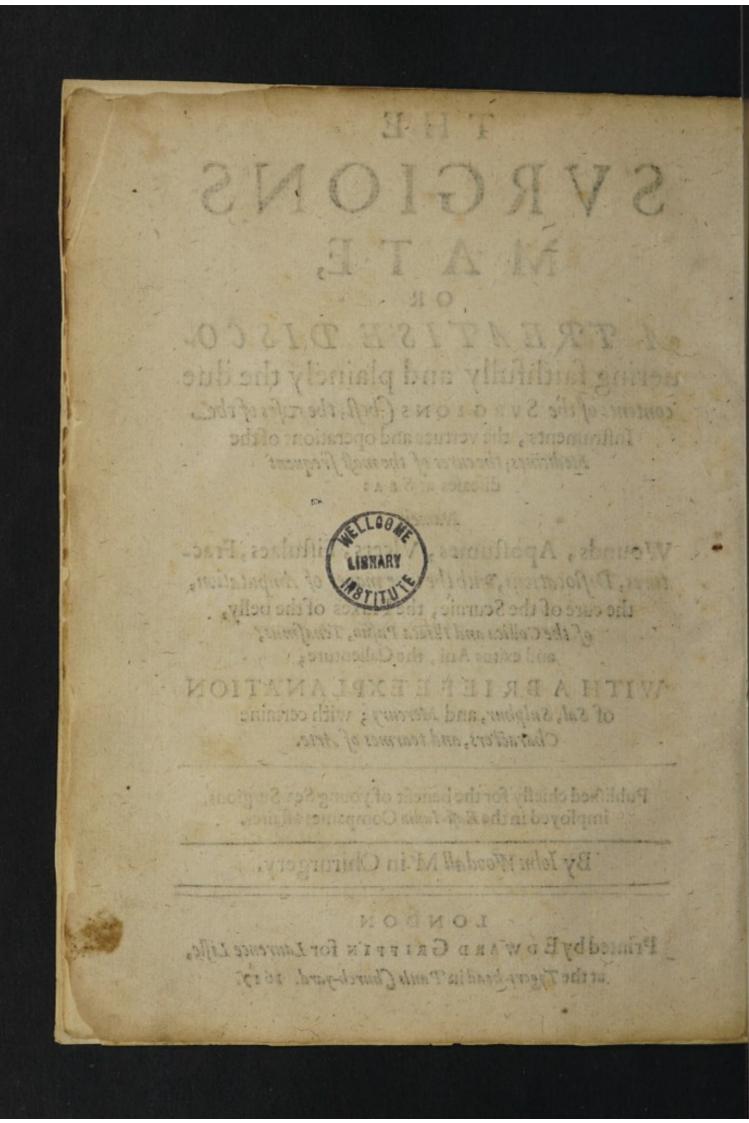
Wounds, Apostumes, Vlcers, Fistulaes, Fractures, Diflocations, with the true maner of Amputation, the cure of the Scurule, the Fluxes of the belly, of the Collica and Illiaca Passio, Tenasmus, and exitus Ani, the Callenture;

WITH A BRIEFE 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 Iohn Woodall Mr in Chirurgery.

LONDON Printed by EDWARD GRIPPIN for Laurence Liste, at the Tygers-bead in Panis Church-yard. 1617.



TO THE FARRE renowmed, vertuous, and worthy

Knight, Sir Тномаs Sмітн; Gouernour of the East-India Company, my fingular good Patrone.

RIGHT WORSHIPFVLL,



Hen I call to minde the many great fauours which you haue beene pleafed from time to time to conferre vpon me; and do confider that Ingrati-

mon-weath haib fo

tude euen amongst the Heathen people hath euer been esteemed Inhumanity; I cannot but reprehend my selfe of flacknesse and g 2 negli-

The Epistle Dedicatorie.

negligence in not performing that dutie whereunto I am lo farre obliged: wherfore studying how I might best teltifie my gratefull affection, I have here prefumed with the poore Gardner who presented Alexander with fuch fruits as his garden afforded, to present you with the first fruits of my poore studies and practice, humbly requesting that as Vliffes vnder the sheild of Aiax was defended, so these my vnworthy lines may by your Honourable accustomed fauour be patronized from the enuie of malitious Detractors. By whose honourable vertues of vigilance, prudence, and bounty the Common-wealth hath fo 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 especial! prouidence and great care for the health and preservation of such as haue beene or hereafter may be imployed in your feruices, who have for the same purpose not onely appointed me, and with an annuall flipent renegliwarded

The Epistle Dedicatorie.

ded me, for to ouer-fee and prouide 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 reafonable coste : the which confidered, and feeing by my experience that many young Surgions, (who by reason of their youth and lacke of practile 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 have 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 give 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 Chefts, and profitably to practife as occasion shal require. And for their better furtherance and knowledge therein, I haue reduced the same into a methode, and therein deciphered the severall Instruments, and Medicines with their particular vies : which

73

againe

The Epistle Dedicatorie.

againe I humbly craue your Worthip with a fauourable construction to accept of, as an vndoubted testimony of that dutifull refpect which by particular obligation I am bound euen to acknowledge to so honourable a Patrone, to whom with my best indeuours I shall remaine most deuoted, and Surgions, (who by realon of thhey rous and lacke of practife have not attained to

that perfection of know ledge, that were te-

-wood to tables sais feruant during life

or fucial argrons, that they may the better

beableges virdertake their charge, and alfo

aue anedirections for the weaker fort

aunice) vor nonertheiche areimploved in about a Your Worships obliged

I.W. Chirurgus. on malirequire. And for their better furthe.

rance and know ledge therein ? I have reduces theftmomte a methode, and therein detiphered the reactall Inframents, and Meanines with their particular vies : which 5

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TO THE WORSHIPFVL M. Chriftopher Frederick, M. John Kerrell, M. Lewis Rogers, M. Iasper Aris, Masters and Gouernours.

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

To my fellow brethren of the clothing, or Livery : And to all the rest of that worshipfull myfterie and fellowship of Barber-SVRGIONS. this labours n



ORSHIPFVLL, reverend, and beloued, be that hideth bis finnes from the Almighty indangereth his owne Soule, and he that would hide his illiterate weaknesse from the worlds venequall censure sheweth no discretion to lay himselfe open in print. In this worke I follow not the course of some worldly wife, that cary a wallet about their neckes with their neighbours faults before them, observing every 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 orged mee thus rashly on the suddaine to put my selfe forward, and in this weake manner to shew forth my homely extenspore altogether undigested; my defires climbing not 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 underwood, defirous to be shrouded from terrible blasts by green Cedars : If therefore by my just and onfained acknowledgement my onworthie labours may finde a fauourable passage, and be acceptable, I have attained my defire with comfort. And fo I take my leave, withing you all the fruition of unfained love with perfect happinesse, externall, internall, and eternall.

retion to fay bundelfe open in print. In

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TO THE BENEVOlent Reader.

I A MALLENT LA TANKA



Wrteous Reader, when I had entered into confideration with my (elfe of my own weakene (Je and in sufficiency, I became) much discouraged from vitering the same to the worlds censure, knowing how ma-

ny learned Artifts this me affordath of farr more excellent gifts then my (elfe: yet waighing againe the fundry benefits might arile by such plaine helpes as this homely treatife affordeth to young practitioners, o. the filence of my betters in undertaking the like, 1 imbolaned my selfe thereunto in discharge of Christian duty to God and my Country, being appointed by the Honourable fociety of Merchants trading to the East Indies, to furnish with medicines, such Surgeons as they employed thither, among ft which number, though I must confesse I finde divers learned and skilfull men farre beyond my felfe : yet againes very many fo weake and infufficient, as I cannot but lament their infufficiency to the great offence of God, and the danger of many mens lines. Wherefore in this regard I held it a charitable worke, how soever the world taketh it, to instruct such young men as were imployed to the East Indies the best 1 could, as well for Conscience sake, and for the comforts of their charge : numely for the safe 50000 guard

To the Reader.

guard of the lives of such as should be imployed in the few busines (les; which Ihaue from time to time done by writing, and being wearied with writing for every shippe the same instructions a new, I held it my best course to put them in print which done, will ferse for any that have occasion of the like, till some of deeper indgement 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 vlual amongst our Artists, though neyther new nor inuented by mee, I purpose, God willing, as soone as 1 can have time to publish: alfo their true preparations or vies, having received some of them from learned Physitians, and expert Surgeons among ft my good friends beere and there as I could gather them, being things of their owne experience, and to me now confirmed by mine alfo. And if any one of my brethren doe finde himselfe not satisfied at this fodaine and undigested worke of mine, let him onely ceale to centure it till be have put forth fomewhat of his owne. Lam not ignorant that a fort of Carpers thefe times afford, who though of them sclues they will pare no time from their pleasures or profits, to aduantage others, yet are they (o sharpe of wit, and can fo well dispute, and fo wifely reafon, that they can eafily make Candida de nigris & de candentibus atra; their words being as Oracles to their owne applauders, in whofe opinions they onely have the keyes of Art at their girdles : but to any fuch I fay as a learned Divine lasely faid to the like .

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

SHANG

Some

To the Reader.

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

Werns gliebt gefelt bud nút; fein wirde Dem felbigen fey es preparirte Wer aber buwill hat daruon Der behalt fein gelt abud lafz es ftan.

ning the chiefe Surgion, who is his Mate, rowards

for he ought to be to hum in eucry point ready to o-

whom he must be carefull to behaughtin, felle wife iv, lo-ingly, and diligently: . 82 and arraunal obliged to his Mate, as the wife is to ber husband.

-nosenidini plano oneoni VV ood a LL.

euen in couering his Mares washnelle : in ongha alto to begentle, and kinde in the echons tak Ts all : pietiful for m that are difeated, and differnt in minificing to them fuch hating remedies as he finall teccine, or be druc fted to gue them trom his Mare, bue none without his o det, for that THE OFFICE AND DVTY OF THE SVR-GIONS MATE.



Auing an intent to fet downe instru-Ations for Surgions Mates, out of my loue to them, I thought it meete in a word or two to put them in minde alfo of their duties. The office and du-

the of the Surgions Mate may (in my opinion) well be divided into three parts, whereof the first concerneth his duty to God, who feeth not as men fee, who is a fearcher of the heart, and knoweth mans thoughts long before, whom if hee and I have the grace to honour with our whole hearts, and feare, he will direct our waies aright.

The fecond duty of the Surgions Mate, is, concerning the chiefe Surgion, who is his Mate, towards whom he must be carefull to behaue himselfe wifely, 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 eucry 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 weakneffe : he ought alfo to be gentle, and kinde in speech, and actions towards all : pittifull to them that are difeased, and diligent in ministring to them such fitting remedies as he shall receive, or be directed to give them. from his Mate, but none without his order, for that his

of the Surgions Mate.

his Mates order is his difcharge, or warrant whateuer happen, yet let him privately lend his beft aduice to his Mate, vpon euery needful occafion kindly, fubmiffiuely, & louingly, euer as vnder correction 3 for if comparisons or opposition take place twixt them, it is not onely dangerous totall the Company, but also a difgrace to themfelues and a great fcandall to their calling : for anoyding which, it is inft that the younger obey the elder, & beware of the contrary left it bee repented toolate. S. PAVL aduifeth feruants to obey froward Mal fters, fo I aduife Surgions Mates to doe the like to froward Surgions, for it theweth no excellent thing in a young man to please an honeft quiet man but to live in love with an ambitions or otherwife a froward vicious man theweth wildome in the fuf ferer. I would not fo stand vpon this point but that my experience hath knowne too much the great harm that hath infued by the diffention of the Sura gion and his Mate in long voiages, the which with diferetion and loue might have beene prevented if but one of hem both had beene wife. The Surgions Mate ought also daily to visite the Cabines of men, to fee who hath any fickeneffe or imperfection alfo to have ready again frod cafion Lint made; Plafters spread, Splints armed, Needles prepared, for flitching wounds; Rowlers and Boulfters, Dorffels, Tents , Buttons, Cappes , Pledgeros, Tape & rowling Needlesd and Thred prepareds and each other needfullching for his calling readie intheir councaident places, placed against occasion be. Likewife his dare must bee tokeepealliche In-WEFE ftruments 993

The office and dutie

fruments of the Cheft, and of his owne box cleane from rufting, and to fet his Landets and Rafors as oft as neede is, it may be he will fay to himfelfe it is a bafe office belonging to meere Barbers and Grinders, I neuer gaue any miode to it, &c. But let mee frienly tell the Surgions Mate, it is the credit of a young Artift to take a vaine (moothly and neate, as alfo to fhaue well is praife worthy, wherfore I with him to practife to doe it, and to be euer learning, for I afflire him he fhall neuer know halfe hee ought to know though he doe his beft. I does a way of 2

of Thirdly if he enterinto confideration wherefore he goeth to Sea, and hazardeth his life, I suppose it is to gaine, or he is vnwife vifto gaine, the chiefe gaine he can intend being a Marey is knowledge in his calling, then let him confider wifely how hee may best apply himselfe to effect such gains, namely by obferning the whole paffages of the difeafed people, confidering both when they began to bee ficke, as neere as he can, the canfes thereof, what hath beene applied either inwardly or outwardly, what operation the medicine had, and fo of every discafed perfon, and every medicine given, and to keepe a lornall in writing of the daily pallages of the voiage in that kinde, and that as well of the vnfucceffine applications, as of the fucceffine, he shall finde great benefit in both : Likewife what alterations of operations he findeth in each medicine, and what medicines keepe their force longeft, & what perifh fooneft. Alfo what variety the climate caufeth, of the Dofes as well of the laxatiue as opiate Medicines. I heartily with each Surgions Mate were Regionates S TH IP

of the Surgions Mate.

were carefull in these points. Another good way forhim to learne is, to read much, I meane in Chirurgery and Philicke, and well to confider & 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 otherwife what vie nath a man of reading if he forget it prefently ? If a Surgions Mate spend his time wifely in the premiles he may do good feruice to God, his Countrey, and himfelfe, 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 fake. And were it northat I have intended this plaine treas tife wholly to the Surgions Mare, Iwould in a word ortwoput the young fea Surgion himfelfem mind of his charge, by admonishing him of fome enfors too groffe, which I have obferned to have beene committed by fome, that he might audide the like might haue cut their Patient his throat allalmid ni

The first error fome young Surgions are possel with, from which infinite others grow, is the want of the feruice of God, the example where to their Mates is very infectious, and this bringeth with it a blass being the name of the Almighty, a generall deboist and base kinde of habite on them, ready for all vaprofitable, tele, and vose mity actions, and vnapt for to profecute any good thing, either in their callings, or otherwise : and if they feem to be any thing, it is in boasting and braue phrases, cenfuring 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 fuch an vnreafonable measure that therby they become in themfelues bale, despising vertue and commending vice. And to their Mates they fhew them felues most vnkind, keeping that little knowledge they have from them, not instructing them at all in their Science, and holding them in more base subjection then their Masters euer did in their Apprentiships. And of a proud lasse disposition, commaunding them without due instructions, to doe the whole bufineffes when indeed themselues ought to put to their hands, euen to those parts of Surgery which they efterme bale ; for the most lamentable difeafes of poore men require the most care of the Surgion, as for example, the vicerations & flidings downe of Ani or the Arf-gut, which fome in difdaining to do their office of fomenting, comforting, & restoring thereof to the due place most inhum anely have cut it off, when with as good a confcience they might haue cut their Patient his throate, and the fame I fay to him that is negligent, & fuffereth fuch to perifh in their infirmities, without doing his vtmost diligence. I could name some of the parties that have fo much difgraced themfelues and the noble Science ; but I will bee charitable, hoping they will amend. And conclude with an old Grammer verle worthy the remembrance of all men :

Fælix quem faciunt aliena pericula cautum.

ing .W.F. spidTs, but not feeing their, owner



A NOTE OF THE PARTIcular Ingrediences due to the Surgeons Chest, and of other necessary Appendexes feruing for Chirurgicall vses, whereof these next recited may be placed on the lidde of the Cheft, if the Surgeon will haue it fo.

Ncifion knines. Dismembring knines. Catlings. Rafors. Trapans. Lenatories. Head-Sawes. Difmembring Sames. Difmembring Nippers. Mallet and Chizell. Speculum Oris, Speenlam Oris with a Screw. Speculum Lingue. Speculum Ani. Cautrizing Irons. Storks bills. Rauens bills. Crowes bills. Terebellum,

Incision fbieres. Probes or flamules. Spatulaes great and small. Spatulum Mondani,

Paces. Pullicans. Forcers or punches. For teeth. Crowes bills. Flegmes. Grauers. Small files. One bundle of mall German Inframents. Glifter Sirings. Small Surings. Cathetor. Waxe Lights. These for the lidde of the Cheft. A

The

The particulars of the Surgeons Cheft.

The reft that follow are not leffe neceffary then the former for their particular vles, namely. The Saluatory furnished with such Vnguents as hereafter in their places are named. The Plaster boxe furnished with the Gray paper. due instruments and medicines White paper. thereunto belonging. The Instruments for the Plaster box Glasses. are as followeth. Sizers. Forceps. Spainle. Probe. Stitching guill and needles. Lancet. Burras pipe. Lenatory. Voula Spoone, &c.

Cupping glasses. Brasse Bason. Bloud porringers. Diet pot. Skillet. Chasing-dish. Glister pot. Funnell. Cups to give potions in. One board to spread plasters. Morter and Pestell. Waights and scales. Sives. Searces. Strainers.

Splints. Inncks. Tape. Towe. Spunges. Clouts. Rowlers. Empty pots. Thred and needles. Waxelights. Lanthorne. Tinder-boxe furnified. Inke and Quilles. I Close Stoole. 1 Bed stoole and a brasse paile. Brickes to heat upon occasion. Pipkins. Emptybags. Skins of Lether.

The particulars of fuch Emplai. fters as are most common in vse by Sea Surgeons.

Stipt: paracelfi. Diachilum cum gummis. Diachilum fimplex. Diachalcitheos. Oxicrotium. Mellilotum pro splene. Mellilotum fimplex. De Lapide Calaminari. de Minio. Callidum or spiced plaster. Vnguents

The particulars of the Surgeons Cheft.

Vnguents most in vse in the Surgeons Chest.

Bazillicon. Apostolorum. Aureum. Agyptiacum. Albu Camphoratie. Diapompholigos. Pettorale. Rofarum. Nutritum. Populeon. De Melle & Sap Contra Ignem. Contra Scorbutu Dialthea composi Populcon. De Melle & Sapo. Contra Scorbutum. Dialthea composita. Dialthea fimplex. Potabile. Mercury. Linamentum arces. Aragon. Martiatum. Axungia porcina. Axungia Cerui. Mel fimplex.

Waters or liquors fitting the Surgeons Cheft.

Aqua Aqua Celeftis. D.Steuens, Rofa folis. Cinamon. Limoniorum. Rofemary. Saffafras.

Annifeed. Abfinthy. Melli Ja. Angelice. Minthe. Cardui fancti, Theriacalis. Rofa Damaski. Rofa Rub. Odorifera: Plantaginis. Falopy. Viridis. Aqua fortis. Verinice. Lotion. Linium forte. & Commune. Acetum Rofarum. Acetum Vini. (Vini, Spiritus Vitrioli. Terebinthina. Caufticke liquid.

> Sal Semme. Nitre.

Oleum

AZ

Rofarum. Anethinum. Chamomeli. Lumbricorum. Liliorum. Hipericonis fimple: Hipericonis cum gummis. Balmi Artificialis. Sambucorum

Ag aviouss

The Particulars of the Surgeons Cheft.

Oleum

Ol: Lini. ONOTHM. Laurini. Abfint by. Papaneris. Petroleum. Scorpionis. Amigdalarum dul. Amigda: amarar: Balfami: naturalis,

Sambucorum.

Oximell fimplex. Mel Rojarum. Syrups Diamorum. Raphana filmest. Prunellorum.

Rofarum. Anthos Berberorum. Conferue Citoniorum. Luinhe. PruncHorum.

> Diacatholicon. Diaphenicon

Chymicall Oyles.

	a mapric noc ons
Pitrioli.	Diaprunum.
Sulphurisper campanum.	
Gariophilerum. Street country.	
Macis. Manual to	Diatrionpiperion.
Philosophorum.	Diatrionpiperion. Theriace Londini.
Annife.	G Conf. Alkermes.
Terbinthine.	de Ovo.
Innperri.	
Spice. Anternational	The : Andromace,
Antimoniy.	The : Diatefferon.
Succini.	Contrate Corpit
Abfinthu.	CL and any and le

Olenini)

12

Sirups.

S and Date or Wind

Origani.

Abfinthij. Limoniorum. Papaneris. Syrups < Cinamomi. Rofarum fimplex. Solutium. Violaram.

audanum paracels. Diascordium. he Sur Diacodion. pil 10 erose VV Opiats. & Philonium romanum. Perficam. Tarlensi. Auris Alexandrine. Abfinthe: Acatie. Succus. ¿ Licorice. Limoni. Pulpa Tamarindarum. Agaricum

A. 14

The particulars of the Surgions Cheft.

Harbæ

Calas viuse.

Album grecum.

J Agaricum. Aurea. Chochie. Pils K De Euphorbio. De Cambogia. DR#ffy. Puluis SBendict Laxatine. laxatus. ? Arthreticus. Absinthia. Albandail. Trochifeus De Spodio. (De Minio.

Simples.

Foliorum Sena. Rhabarbare. Agaricum. Scamonie. Alocs: Hermodactils. Polipodium. Dens Elephantis. Cornse ceruis Emphorbin. Turbith. Mirabulanorum. Alchen Cambogia. Raphane Cassia fiftula.

Radices Certaine other Simples,

Crocus. Opinm. China. Sar Japarille. Sallafras. Guiacum. Corten guaiaca,

Cortex granatorum. Licorice. Hordia com: Hordis gallice. Semen anifa. Theag animan. Feniculi. Carraway. Cumini. Petrocelini, Lins. Fenigrece, mil llolbusa rodi.O Anethe. abbaix mouib Рарансти. Plantaginis. Sem: quatuor frigide. Maioris. Singuis Draconis, Minoris. Saccarum. Cantiomides. Amigdalarum. Caupbora, VHA PATA. Amillum.

Spices, siz.

Sinamone. Macis. Dollas comments. Piper. Closes, Mineralls. Nuces Muscati.

Andress on summer or Stibums. Gummer,

Gniace. Opoponax. Bdelinm. Amoniacum. Sagapenum. Galbannm. Myrrhe. A 3

Mafticken

Lupines.

Balus viere.

5 alphan.

L'étriolsess cementése

Firidkens albump.

The particulars of the Surgions Cheft.

Mafticke. Laudanum. Storax calaminthe. Liquida. Beniamen. Tragagantum. Pix naualis. Refina. Succinum.

> Other needfull Simples of diuers kindes. admits

> > Pananerss.

V 24.0 710 [13.

Alweillerge.

Pinst. Clowes,

Guiace.

Osopenak.

Babelissma. Auroningman,

Sug. pension. Galivannia Adyrrise.

A 3

Cera citrina. Mummia. Sparma ceti. Sanguis Draconis. Lupines. Cantbarides. Campbora. Spodium. Sumach. Spices, wire, Galls. Bolus vere. Bolus comunis.

Mineralls.

Naces Mafenti. Antimonium or Stibium. Sulphur. Alumen roche. Vitriolum commune. Vitriolum album.

Adu Richer

Cerufavenetia. Lithargum aureum. Viride acs. Testia.

Baccæ SInniperi. Lauri.

Tritici. Fabarum. Ferni 2 Hordei. Furfuris. Volatilis.

> Herbes most fit to be carried.

Ro marinus. Mentha. Melilotum. Saluia. Herba. Thimum. Absinthium. Cardnus benedictus. Melliffa. Sabina.

Althen. Raphana filuestres. Radices / Peritrum. Angelica. Confolida. Calx vina. Album greenm.

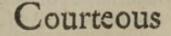
And

Carlow Endinera



And for that the Surgions Mate by due confequent is to be Barber to the Ships Company, he ought not to be wanting of these following necellaries.

> One Barbers cafe containing. Raifors. Sizers. Combes. Combe-bruft. Eare picker. Mullets. Graners. Flegmes. Paring knines. Looking glasse. Allo Aprons. middool.ss ligit grinin Sbauing linen. Water-pot. Sweet-water. Washing-bals. Hoanes. Whet-Stones. Basons, and what elfe isnecellarie to the Barbers. profession.



Courteous Reader these errors aud divers others omitted, I desire thee as thou shalt finde them in reading, thou would est be pleased to amend them with thy penne.

Ag. 14 à finelin. 4. read ftemes for phiemes. p. 19 l. à fine 5. saue for fame. p. 24.1.4 with for which p 27 1. 24. read the lips, the fides. p. 36.1.7. Ziiij for Ziiij &l.9 Z j for Zj. p. 37.1.4. &l. s. pepper for paper. p. 40. l. 9 leabs for ftabs. p. 62. l. 23. duffified for dulcified. p. 63.1. a fine 7. Spread for Speed. p.73. 1.6. other for agreeth. p.91 1.7. flarz for flauz. p.92.1.2. Archeticus for Arthriticus p.96.1 15. Cambodigia for Cambogia. p. 99. l. 1 3. abiterfed for absterfine. p. 101. 1.4. allaieth for preuaileth. p. 105. Hermaes for Herniaes. p. 108. l. vit. read to be drunke. p. 117.1. à fine 2. farnia for farina. p. 123. Wnerritanus for Quercitanus. & 1.22. Valeius for Valerius, Rorlandus for Rulandus, Zollius for Ctollius, Dorucretius for Dorntrellius. p. 128.1.19. affected for effected, p. 13 2. l.a fine aftringent for aftringents. p. 1 38 a fine 2. read inflammations appeare fom etimes. p. 142.1. a fine 5. feeling for flealing. p. 148. 1.13 allescens for albescens. p. 150. l, à fine 8. Viachilon for Diachilon. p. 15 3. 1.20. obfterfine for abfterfine, & a finel. s. read for the forthwith. p.1 54. obsterfine for absterfine. p. 161. l. 25. time for tie. p. 165.1.8 iegge for legge, p.168.1.19. indication for indication. p. 176. 1. 16. fcarre for Eskarre. p. 184.1.8. Pipula for Pilula. p. 197.1.5. in margine inflation for inflation. & l. à fine 9. referued for receiued. p. 199. 1.24. read branne M j p. 21 2.1. à fine 9. eafily for eafily.p 226.1.24. heard for heart. p.229. nutifix for nucifix. p. 280.1. a fine 2. ftra for ftrange. p. 205.1.5. read fwift is thy tongue. p. 338.1. 13. ribellation for cribel ation. p. 339. l. 21. fodid for fordid. p. 341. l. 24. Stellidium for ftellicidium, p. 347. 1.15. refecting for reflecting.

collarie to the Barbers

Contreous



CERTAINE BREIFE Remembrances touching the particular Instruments for the SVRGIONS CHEST, and the vies of the fame.

And first of the vses of the Incision Knife.



H E vies of the incilion knife are many: namely, to enter the catis or skin vpon euery iust caufe, wherein I aduife the Surgions Mate not to be too forward, or too rash, but to take good aduise, Great care to be namely, if the Patient may by any bet- had in Insifian. ter way elfereceiue health, that he for-

beare incifion, if not, let him proceed in the name of God. But note well that this inftrument is farre leffe vied amongst difereet Artifts of our time, then it was in former ages, for it was ever accultomed to be at hand for the ope- Incision by ning of any Aposteme superated, many of which now are caufticke medifarre more conucniently done by caulticke medicines : cines. for in truth it is a groffe error in the Surgion, and painfull to the Patient ordinarily as fome doe to open Tumors by Tumors not to incifion, and put tents into the orifice, by which occasion be incifed. Euils attending in fhort time the Artift is inforced either to new incifion, Tumers incifed. or to dilate the orifice with a fpunge, or Elder or Gentian rootes, thereby also including the peccant matter within the apoltemated part, which ought to have continuall paflage, whereas the cauflicke medicine faueth all that labor, with

Apoftemes in the mouth to be ineifed rather with a Lancet then with a kpife.

2

eison to be obferued.

Two incifion

with great honour to the Artift, and no finall profit and convenience to the difeafed. But as touching fmall Apoftemes in the mouth, throat, and gummes, Incilion is belt: in which cafe I hold a fine launcet is molt comely, and much fitter then a larger incifion knife: And note that in all incifions what locuer to be made in any part of the body, it behoueth the Surgion to regard if he incife deepe, that he doe it as necre as he can according to the length of Cautions in In- the Muscles; and also it is commendable in an Artist to bee very carefull to hide his fharpe inftruments euer as much as is possible from the fight 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 leaft two incilion kniues, one greater, one leffe, and that he keepe them tharpe and cleane; but let them not be fo knines needfull. thinne grownde in the edge as the Rafor, for then they will deceive the workeman, when hee hath most vie of Thus much at this time of the incifion knife. them.

Of the difmembring knife, and of the Catlinge.

Their wfe.

The Incision knife required in difmembring

Hele two inftruments are to be vied in difmembring : as namely, they are to amputate, or to take of any offensive member or part of mans body : I meane all the flefhie part, or whatfoeuer may bee incifed euen to the bone. And also in difmembring of the legge or arme below the knee or elbow, you shall have occasion to vie the incilion knife to cut a funder betwixt the bones or elfe where, whatfoeuer the Catling or difmembring knife cannot come at by reason of their greatnes or whitnes; and then proceed to the fawe. To conclude, one of each kinde may ferue for one Cheft, fo they bee sharpe and fitly grownd, and not too thinne edged. And they are both very needfull inftruments to be at hand vpon all occafions in the Surgions Cheft.

Of

Of the Rafor.

Here needeth little to be spoken of the vse of this infrument, for that all men know well the vie thereof, The vie if a which is chiefly to fhaue away haire where norde requireth: onely let me put the Surgions Matein minde, that A Hoane and if he forget to take in his Cheft a good hoane, as alfo a whetflone is good whetftone, he may eafily lacke the necellary vie of very necellary. a good Rator, when he hath molt need of it at fea; yea Germaine Surthough he carry 10 Rafors with him. In Germanie it is a gions praife. principall proofe-peece of mastership in Surgery, for a worthy for Ra-young man to take a base and ordinary knife, and to fit it fors and Lawnto fhaue a beard; and also to make a Launcet himfelfe which will enter fmoothly : and it is very great commen - Infruments dations in a young Artift to haue tharpe and cleane inftru- kept cleane is ments of all forts, and to keepethem fo, and cheifely Ra. commendable withall, fors and Launcets; and it is a great grace to a young Artift to have good Rafors and Launcets, and the contrary may doe great hurt. Wherefore I aduise each young Artist to be practiling often with the worft of his kniues and Launcets, till he beable to make them feruiceable.

But I tinde that pride and flothfulnes hath taken fuch blame worthy. hold of many young Artifts, that they difdaine and negleft the meaneft 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 Rafors, which I hold to be an especiall credit to him, and no leffe aduantage to his Patient. Thus much at this time of the vle of the Rafor.

Of the Trapan.

"He Trapan is an inftrument of great confequent, where there is iuft occasion of the vie thereof : but it The vie. B 2 18

3

An advertife= miens whether the Trapan be necessary to be »fed.

If it be requisite in frument it felfa.

2. The place applyed. Great carerequired in she vie of the in-Arumens.

3. The hairs of.

dinesse.

5. Obferne the BHX'e.

is feldome well vied, and it onely attendeth the fractures of Craninm, and yet scarle one in ten haue iust occasion of the vie thereof. For we fee daily many greeuous fractures healed without it, and many more would be if no fuch infirument were; fince the perfect vie thereof is not euery mass worke, neither in euery fracture (as I haue faid) needfull to be vied, because of many dangers attending the vnskilfall or vntimely vie thereof. I aduile the younger Surgeons to confider well afore they fet the Trapan, whether it may not be forborne : but if a fracture happen in Cranium, with contusion and depression of . both the tables thereof, fo that by other conjoyned and apparent accidents, as want of fome of the Senfes, great vomiting with contraction of finewes, convulsions, or the like iust reasons appeare, thou being forced to vie the Trapan, proceed warily as followeth.

First be fure the instrument of it felfe be good, and of observe first the the belt making, and that it be cleane from rult, and perfect without faults; for those Trapans which are brought from Germany are not to be vied, nor yet to be .tolerated,

Further of the place where it is to be vied or placed vpo; where it is to be it is not alwaies directly where the blow lighted, but fometimes a fracture is found a great distance of : wherefore this worke caufeth no imall diferetion in the attempting thereof. Your direction therefore, the skin being not broken, must be according to the apparent indication of the part, the due confideration of the complaint of the Patient, together with your owne feeling with your fingers well refpected . The place therefore found where the muß be fraued fracture is, it then followeth that the haire mult be first shaued away, or at least (which is not fo good) cut close 4. Haue all me- for a good distance about the greefe 4 fingers broad or dicines in a rea- more, which done haue ready your medicines to binde vp the wound againe, as namely your fpunge, your ligature with hot water, and each other thing necellary for a dreffing fit, which in an other place I intend to fet downe; And

And if fo be that the fluxe hinder not, wine and hony to foment the greened part after theincilion be made: It will doe well if it be in the ship to make also a restrictive ready, namely of Bole with water and vineger, if an egge be not to be had; but an egge in the reftrictive will make it the better. And further if that the fluxe will not be flayed by an ordinary kinde of reftrictive, then take the fironger restrictive powder which in due place is to be mentioned. And for prefent applications into the wound you have good choice of two forts, namely Oyle of Rofes, and Mel Rofarum 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 readineffe, and the Patient pla- 6. Care of the ced close and warme from the ayre, and having two ap- Patient in drefpointed to flay his head, your incilion is either to be made fing need will. 7. Incifion mail directly croffe, or in the forme of this Romane T: and be when the catis is divided, together with membrana carnofa, or flethly membran, the Pericranin or Panicle couering the S. The Peri rafcull is also to be take away, that the fractured part be bare, nium remome. then fet the Trapan thereon, namely the pin thereof is al- The festing of waies to be fet on the whole part of the Cranin, wherby the the Trapan. most part of the Trapan by confequent fandeth on the whole bone, but fo that almost halfe may stand on the fra-Aured part of the bone. This being thus warily fet, begin cafily to turne about the inftrument till all the teeth have The bering takengood hold round, then take vp your Trapan againe, with the Traand takeout the pin in the midft, and fet on the other part pan. againe as before, boring and turning (till till you have bored through both Tables, which is eafily to be felt by the borer : then gently take out the peece, which commonly commethaway in the middeft of the infirument, not regarding that all the fractured part be bored out or be comming away: neither shall it alwaies be needfull that the deprested part be prefently cleuated, except it may very fafely and eafily be done; for nature will admirably bring Mature much to passe the elevating & scaling of the rest of the fractured worke.

B 3

A caution in fetting the Trapan.

A Hiftory.

Speciall skill required in the operation.

Note.

Note wherein curation of fractures confils.

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 friue in fetting the Trapan, without good reafon, to vie the greatest head of the Trapan, which hath commonly 3 or 4 heads: for if nature onely have a breathing it will wonderfully helpe it felfe by purging the contused blood through the orifice, by way of matter or excrement, Many worthy Artifts there are at this day liuing, which have performed great cures in fractures of Granium, and yet neuer knew the vle of this worthy inftrument. I haue my felfe with a fort caruing knife twife made as good fhift 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 vie no Trapan that ever I could fee in my eight yeares living 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 therfore would aduife a young Artift to make fome experience first vpon a Calues head, or a sheepes head till he can well & easily take out a peece of the bone; fo shall he the more fafely doe it to a man without error when occasion is.

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

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

of

Of the Levatorie.

The Levatory is a necessary instrument to elevate the Therefe. depressed Cranium, in which worke, as I have written in the former Chapter of the vse of the Trapan, I aduise Cautions to be no young Artist to be too curious or hasty to force the observed. depressed bone too much, where there is no euill symptoms; for adepressed bone will often times helpe it felfe, by rising and scaling admirably; and yet it is many times It is very neof very necessary vse, and a fit instrument in the Surgeons ceffary. cheft.

Of the Head-Same.

The Head fame is an inftrument with which a vent may be given fometimes through the Cranium, and The wfe. thereby the vie of the Trapan may be happily forborne: & for that reafon this inftrument may have a place in the Surgeons Cheft; fometimes alfo a fmall ragged peece of the Cranium may fo hang, that this inftrument may bee vied to fawe it away. But I with young Artifts not to bee ouer-bufie in fawing, plucking away, or raifing the fractuing. red Cranium, as is faid, more then of meere necefifite they are vrged vnto, left fearefull and foddaine accidents follow not to be auoyded nor flayed: If ought be meerely loofe, and in fight, take that away; if not, forbeare to plucke much or force, for nature is exceeding beneficiall in electing vnnaturall things in that part, and very froward if thou yfe force whileft fhee is weake her felfe.

Of the difmembring Same.

This great and terrible instrument onely ordeined for amputation or difmembring, is fitting to be alwaies ready and cleane kept in the Surgeons Chest, with two blades therevnto, though one good blade well vsed will at hand, and ferue an Artist for his whole life: but forasimuch as it is hepteleane.

only

only appointed, as is faid, for the worke of difimembring, I referre the Reader to a fublequent Chapter of difmembring, where I have at large recited the vie thereof, and having small leifure I will now haste to the next.

Of the dismembring Nippers, and of the Makes and Chizell for difmembring.

The yse.

8

of them.

-Hele inflruments having coherence with the precedent, namely the Sawe, are meerely 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 fay no more of them in this place, but that they are good necestaries upon occasions in the Surgeons Cheft He great neede being kept well. Neuertheleffe in want of fuch at fea, the ship-Carpenter for a neede can alwaies furnish the Surgeon in a fhort warning, and therefore they may as well be forborne as any other I know in the Cheft, if allowance grow fcant.

Of the Speculum oris plaine.

The yfe.

This is very neceffary.

His Speculum oris is that which taketh hold on the A tongue and vnder the chin at once, and is very necelfary to hold open the mouth for the better applying medicines to the throat: and this inftrument is of no other vie at all in the Surgeons Cheft ; yet because the worke is frequent at fea, there is much neede of fuch an inftrument. in the Surgeons Cheft.

Of the Speculaus oris with a forew.

"His Speculum ferueth to forew open the mouth, which is often very needfull at Sea, as well in the cure of Frequent in vie Lythargy and Scurny, as in many other dangerous cafes, and very profi- and namely fometimes for the conveying nourifhment table. into the mouth of the Patient : fometime also for the bringing

bringing in medicines of feuerall kindes too long to write of, wherefore it may not well be miffing in the Surgeons cheft.

Of the speculam lingue.

This fpeculum lingua is a finall influment which may be carried in a plafter box : It is formed like a fplatter The forme of or fpatula at one end, onely it is hollow and cut through, freculätingua. and the other being formed for fcraping the tongue : and is very fitting in feuers, and furring of the tongue, the broad is vfed to hold downe the tongue at fuch times as you defire, either to inicct any liquor into the throate, or to apply any other medicine to the mouth or throate, though fome vfe in place thereof a fplatter, yet this influment is farre fleddier, better, and cleaner; and being daties of it. through hollow, as is faid, the tongue is not apt to flip or flide from vnder it any way.

Of the peculum Ani.

THe freenlum Ani declareth his vie by his name, belonging only to ane or the fundament, to open the fame The Vfe. as occasion shall be offered, vpon every griete or difease happening thereunto, and cannot well be forborne in the Surgeons cheft. For if there happen into the orrifice Reafons for the of the fundament any excoriation or exulceration, then "ecefficie of it. can nothing better be brought to the greiued place, then by this feculum: neither can the greifebe feene 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 viethereof, when they once fee but the inftrument ; and yet let not the young Artift be too An advertifebufie in vling of this inftrument without good realon. For ment for the if by injection, without it he can cure the Patient it is much inframent, better fo to do, and much eafier to the Patient then to vie the infirument. One principall reason is, the Patient hath Note I. notalwaies power to helpehimfelfe by giving way to the 2

fate

fafe vfe of this inftrument, for the Sphingtures or gathering muscles of the fundament will not of themselves without reliftance be opened, but often will againft the Patient his owne will make fuch vnexpected reliftance that if the Artift which delateth giue not backe he may brule the faid 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 vie needletle force in that part.

Of the cautrizing Irons.

He auncient Chirurgeons of former ages vied these I inftruments farre more then thefe 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 vle of them is very needfull, as namely, to cauterize any veine or Arterie in strong fluxes of blood which cannot When or where otherwise be staied. And in the Epilepsie or falling fickthe rfe is requi- nelle they are often vied with good fucceile : also they are good to make a funtanell or lifue in the hinder part of the head, or in the necke; or elfe where in the cure of the Lethargie or Apoplexie, if vpon learned & good aduice there be held just cause fo to do. But they have been vied commonly of the ancient Surgeons of former ages for the opening of Apoltumes. And furely they are far better in my judgement for the good of the Patient in many Apoflumes then the Launcet : and yet I confeile I make no vie of them my felfe in that kinde, because of the feare they put the Patient vnto, and for speech of people, who are ready to fcandalize an Artift vpon each light occasion. These instruments haue likwife bin comonly vied by the ancients in difmembring, namely to cauterize fometimes the whole end of the flu pe, and fometimes onely veines and arteries, and doubtleffe with good warrant they may yet be fo vied ; but in that cale they are wholly now forborne, for reasons aforelaid, and for that a more pleasant courfe is knowne both for the Patient and the Artift; yet I conclude SIL

The Ffe.

3

10

red.

The benefit of she inftrument feare and feandallhindereth.

Of the Infiruments, and their wfes.

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

> Of Storkes bills, Rauens bills, Croes bills, Goofe bills, and the Terebellum.

Hefe last recited instruments have their feuerall vies, The Vie. to draw out bullets, arrow heades, broken bones, or whatfoeuer elfe of vnnaturall things are gotten into any part of man body. In the vie of each of them great care Care in their and respect is to be had, not to vse extream violence on the vse is to be had suddaine to draw out the offending thing, for it is not al- for dimers reawaies neceffary to drawe it foorth by the way of the first wound, but perhaps it may with farre leffe danger bee thrust quite through the member, and taken out on the other fide. Sometime alfo the offending thing as a bullet may be fo fixed in a bone or otherwile betwixt bones, that it is farre better not to mooue it then to offend the part where it is fixed or feated : fometimes alfo Nature will better call it out then thou canft by arte deuife to doit, and ouer forwardneiledoth often as much hurt as good. It 6 happeneth alfo fometimes that the orifice of the wound is to be dilated, or inlarged to draw out a loofe bone, or or The drawing ther things. In fuch a cafe if it be meerely loofe, it is belt to out of a loofe take it out the first dreffing ; but if it bee loofe at one end bone. only and fast at the other, except thou without flux of blood or danger of the member canft remoue it, forbeare and give nature leave to do her office, and have patience. For otherwife young Artifts which are forward to tearc, cut, and fearch too boldly, doe often that harme which is vnrecouerable. To conclude, fince experience and reason maketh an Arte, if thou have reafon be carefull to aske God and man counfell both of God and man, that thou mailt answer thy are to be fought deedes both here and in the world to come, for the fub- ledge. iect of thy Arte is the most precious of Gods creatures, Thus much for the vie of the aforefaid inftruments at this time.

C 2

Of

Of incision speires.

Incifion Deires are rather for forme theis neceffary vfe.

12

of the infrumente

An Incision

heires.

T Here is in every Arte or Science a due respect to ob-L .ferue the having of lome things for forme and order fake, and if any inftruments in the Surgeons cheft may bee tearmed for forme fake to bee placed there, the Incilion fheires are of that kinde, for they are generally defired, but fcarce once in a mans life worth the vfage; for admit there The fiblome of were an occasion to delate or inlarge a wound, it is farre better done with the incision knife, which justly will obey the Artift his will without more or leffe doing then neede requireth : and this inftrument is no way fo juftly to bee kaife will exemfe limited, wherefore though I have here nominated it I forthe want of the beare any perfwaliue words to vrge the vie ofit, but leave the Artift to his will therein.

Of the ofe of Probes of fenerall fices.

Probes very needfull.

2 The ends of abeir yfe. T 2 Great danger

in the ill vfe of she Prote.

The yfe of a Bong Probe.

THeyle of a Probe can no way be forborne in the Surgeons cheft, for no chirurgicall worke is well and artificially effected without fome occasion of the viethereof more or leffe, as namely, oftentimes it is to be armed with The divers ma- dry foft lint to clenfe a wound : fometimes againe, as is aner of their vfe. forefaid, armed with drie lint and dipped into fome lotion, oyle or liquor, therewith to mundifie corrode or heale the greife according to the due occasion thereof, and will of the Artift: fometimes to inquire the depth of a wound, vlcer, or fifula, in which worke many times great wrong is done by vnconfcionable or ignorant Surgeons, to their Patients by forcing to farre the Probe, thereby to make the greife appeare deeper, which I aduife young Surgeons to make a confcience of, for by fuch abuie the Patient is many times greatly indangered of his life. Further fome viethe longer fort of Probes with eies like needles in wounds that penetrate through a member, yea fome are to hardy they will put them through the Truncke of the body

body, the Patient being wounded through the body, all To draw the Probe through which I hold to be very idle; for certainely it must be both the body would. very painefull, fearefull to the Patient, and dangerous; ded is emill, and the cuftome of fuch Artifts is to drawe lawne or linnen cloth being put into the eye of the Probe or flamule as fome tearmeit, and dipped in fome artificiall balme, they draw it fo through the member, yea and fome are fo wife in their owne conceits that they leave the faid laune or linnen cloth in the wound from one dreffing to an other, which for my part I vtterly mislike ; for I know in all wounds nature striueth to make vnition of the parts diuided, and who fo keepeth a funder the parts by fuch courfes it shall repent him, except heebe gracelesse. My felfe haue had reafonable experience in piercing wounds both Hifterie. through the trunke of the body, and through the outward members, and haue euer contented my felfe, in putting into each orifice a fhort and eafietent, which I commonly make of emplastrum stipticum Paracels, or some other good plafter spread on a cloute and rouled gently tentwife and fo applied dipped in Balme, the tent being but of halfe an inch or an inch long at the molt: 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, alfo obferued : which in their places as time will permit shall be touched God willing. No more at this time of the vie of Probes.

Of Batulaes great and small.

C Platulaes or fplatters as they commonly tearmethem Dare most needfull instruments to spread vnguent, and Their yfe. emplasters withall, and alfo to ftirre about, and the better to compound any medicine on the fire : and to this latter Spatters of worke the Artift may make wooden fplatters which will wood a fwell as. be farre fitter and cleaner then those of Iron , and the Sur- of iron necesfit. geons cheft cannot well be without both forts, and variety rie.

C 3

will

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

Spathula mundani.

ment.

14

The Ffe.

Coffigeneffe dangerous.

A new infru- "His inftrument is newly desifed by my felfe, to ferue vpon any occasion of extreame colliuenesse, which often happeneth to fea men, fo that no purging medicine neither vpward nor downeward administred or taken will worke, which my felfe have more then once feen, in which cale the fundament, with the peculum ani aforelaid, if occalion 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 difease killeth many, and may by the diligent Artift be eafily cured as aforefaid. This recited instrument may bee easily forced into the fundament without the feculum ani to conduct it, being annointed or greafed, and first warmed a little ; this greife commeth now and then to men which have the fcuruie, and it often fo inflameth, and excoriateth, yea and fometime putrifieth the Arle-gut or Longanum, that the partie either dieth thereof, or the fharpe humidity proceeding by realon of the inflammation and excoriation thence mentioned maketh pallage for the aforefaid hard excrement after which followeth a most extreame and painefull flux of bloud, which for the most part killeth them, and yet is it often feene, that the party being in time diligently attended (by Great care to be God his mercy) may have comfort and remedy for once. had in the cure Thefe hard excrements taken away, the body returneth to of the difease. the naturall former habit againe. &c.

> Pacis, Pullicans, Punches or forcers, Crocs bills, ftemes, Graners and files for seeth.

The Me.

L1 these recited instruments, and each of them are needfull in the Surgeons cheft, and cannot bee well forborne for the drawing of teeth, as also the clenling of the

the teeth and gummes, and the letting of the gums bloud are often no small things for keeping men in health at fea, and fometimes doe faue the lives of men both at fea and land : For we feethat from an Apoltume begunne vnder a rotten or hollow tooth for want of drawing of the lame, fometimes proceederb great fwellings in the face, or in the Amigdalls, and throate, and the party is fuffocated and Skill in drawdieth : Likewife by vndifcreet drawing of a tooth either ing of teethrethe iaw is broken, or fome other bad accident is prouoked. Wherfore I hold none worthy to go for a Surgeons Mate to fea, who is ignorant of tooth drawing ; and I effeeme him an vnworthy Surgeon how high foeuer hee beares his head, that can draw a tooth well, and will vpon neede at fea scorne or deny to doit.

For drawing of teeth the true manner is, firlt well to di- The manner uide the Gumme from the tooth, in which worke if you how to draw be wary you neede not launch or cut the gumme at all, but a tooth aright. onely with the round fharpe pointed end of the phleme to compasse the tooth close, pearcing by little and little still The vie of a fornewhat deeper, but ever keeping round and close to Phleme, the tooth till you feele your phleme be as low as the iaw bone, in which time you may be; then confider well what kinde of inftrument 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 flumpe, except it bee of the foremost teeth, the pul- The vfe of the licans are the fitteft instruments to draw with ; if it bee any Pullican. other of the great grinders, and that there bee reafonable hold on theinner lide, be it on the vpper or lower iaw it is best done with the paces ; but you must be wary you draw The vie of the Pacis. not a large tooth with a narrow pacis, for fo you hazard the breaking thereof; wherefore two forts of pacis at least are needfullin a cheft, 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 The wfe of the they are fafelt done with the forcers, or punch, prouided Forcers and that they be vpon the vpperiaw, and for them of the lower Punches. iaw being ftrong, with narrow pacis. Note further that as well

Respect in placing the Infirmment to bo had.

How to place

2

2

3

Gods mercy in working that which arte can ; wot.

The mettall of the Inframents onglit to bere-Spected.

A reafon drawne from experience. What fit to bee 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 bee had in the placing your inftrument of what fort focuer it be, and you mult in raifing the tooth bevery carefull for feare of breaking the fame, or of offending the iaw. Wherefore for one generall rule ere you draw a tooth, forget not to thrust downe your inthis inferument. Arument as low as you can possiblic towards the roote of the tooth, and that you gripe it fleady and faft, that as you feeme fomewhat to wrench your hand, that you may more intend to plucke the tooth vpward according to the fituation of the tooth, for fauing the iaw. Alfo when your instrument hath hold on the one fide of the iaw, you must with your other hand take hold and stay the iaw. Beware also you bee not too fuddaine or rash in raising or drawing the tooth, but that you feele as it were the forme of the lituation thereof in your plucking out of the fame; for fome greatteeth, being farre wider in the lower end then elfe where, if you bee too rafh in raifing them from their place, you are fure either to breake them or to damnifie the iaw bone. And in trueth, in that I have often wondered at the goodnes of God when I have viewed a tooth with three large flradling rootes or fangs, forced out at a round narrow hole, which fanges are no way flexible, fo that it must follow of necessitie the iaw bone hath opened it felfe (though by force) to let them out, and yet without harmeto the Patient, or helpe of Arte, closed againe, and in three daies perfectly whole. Concerning the metall your inftrument ought to be made of, the forcers or punches are belt to be made of the hardeft fleele ; the pacis and pullicans of steele fortened that they may not pinch too Tharpe. My felfe haue to my paine proued experience in my owneheadtwice, namely the harme of feeled hard paces : which pinched off the heads of two of my owne teeth, and left the rootes behinde, which maketh me the more to comilerate others in that behalfe. After the drawing of teeth fome put vineger, and fome put other liquors into

into the mouth, but vineger I vtterly millike: I neuer vfe other thing but falt betwixt my fingers thruft into the place where the tooth flood, and then with my fingers clofe agains the gumme cafily together. For in my opinion vineger is hurtfull in fuch a cafe; but if fometimes the party be not in cafe prefently, then 1 vfe 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 fide where the griefe is, which for the most part bringeth prefent eafe.

Concerning the Crowes bills, they are only vied to take The vie of the hold of any fnagg of a tooth or bone loofe in the jawe, or Crowes bils. elfe where in the body where occasion may vrge.

Phlemes have not only their vies in teeth drawing, but Another vie of alfo to launch & cut the Gummes to let them bloud, or to Phlemes. cut oftentimes the fuperfluous fleth of the gummes away, it being too ranke, as in cafes of the foury, the cure whereof (God willing) thall in another place be spoken of.

And for Grauers they are vied to take feales of, a hard The vie of fubliance which vie 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 clense a bone in any other part of the body, as just occasion is offered."

The small Files are vied either to file a small snagg of 2 The vie of tooth, which offendeth the tongue or lipps, or to abate Files. any end of a bone else-where in the body which is fraftured.

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

Forafmuch as the vnexpected cafualties that happneth to a man are innumerable, I fee not how the Surgeon can by his wit deuife inftruments or remedies for all, Wherefore for that a heare or a mote in the eye, a ftone The yfe of the in the eare or nostrels, a pin or a bone in the throat, a spill Germaine infiraments, D in

in the finger, and divers like cafualties vnfortunately happen on the fodaine, it is very necellary for the Surgeon to be furnished with fuch like needfull inflruments, as are commonly conteyned in the Bundle mentioned: for this Bundle conteyneth at the least 20 fmall instruments of strange formes, at first deuifed no doubt by learned and diligent Artifts, and doe well garnifh and fet out the Surgeons Cheft, and are many waies very needfull for any the occasions mentioned.

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

as furely no inftrument in the Surgeons Cheft in my opi-

His worthy and well deuifed inftrument fo needfull in the Surgeons Cheft, I with each Surgeons Mate

were perfect in the vie thereof : for it is fo necellary The neceffitie of and fo comfortable an inftrument to him that hath neede this Seringe. thereof, and fo ready, neat, and eafie for the workeman,

The manner of tinge.

Enella

nion is like to it : for there are two principall and capitall euills which chiefly haften the ends of many of our louing Countreymen at Sea; not onely in the East Indies, but The yfe shereof, also in all hote Countries : the first and principall is extreame loofenetle and weaknetle of the flomach, and interalls caufing a flux of the belly; the other is extreame coftiuenetle, in both which this inftrument is most necesfary : prouide therefore that you bee fure to have one at hand, and that it be alwaics ready : alfo that you have feuerail pipes thereto; that you arme it well with good keeping the Se- towe; that when you have vied it you wipe it cleane, and hange it vp in your Cabin in two parts being drawneout, namely the flaffe and the barrell ech by it felfe, for if it bee kept close it will be mustie and the tower otten. There is More pipes then alfo to be had in readineffe a crooked necke much like an one with a croo- elbow, belonging to the fame inftrument, that how crooked necke need- ked foeuer the Patient lye, the medicine may be adminiftred to him : & therewith also any man may give himfelf

10

a Glifter very eafily without the helpe of another.

The principall things to be observed in fitting the in- 20 ceffary rules. ftrument is that the towe, within the ftaffe mentioned, be Firft of the towe euen and full and close put on, that no drop of liquor can in the feringe. come out behinde at the staffe end, which is as calle to do as in a finall Sirring. And you muff allo haue a glyfter por of pewter, but one of braile were better for feare of 2 Of theglyfter post. melting. Your glyffer pot fliould be made with a fnout or lipp, and containing one pinte and a halfe, the better to deliuer in the liquor at the narrow hole of the firing with. out a funnell. When you would put in your medicine, you must draw downe your staffe as low as you can, that 3. Of putting there may be the whole roome to containe the fubstance into the feringe. which you have ready, namely your Glyfter, which put in, have ready a corketo flop the hole you putitin by . then 4. of A pping may you lay downe your instrument till you be ready to the faringe filvie it. There is no other thing in the deliucringit into id. the body to be observed, save that you put on the pipe : s. Put on the annoint the end of it with fome fat thing; or dip it into Pipe. the oyle fwimming in the firing. And when you are rea- 6. Anoint it dy, having fome towe about the head of the faid pipe, with cyleor wringing it hard in, and thrust it to the head, laying the Axungia. firing in an even polition if it may be, and then put it from bout the pipe. you till all be in the gut : then let the party turne himfelfe & Concerning on his backe, forcing himfelfe by all poffible meanes to the delivery of reteine the medicine giuen him for one howre if he can. the gliffer into the body. Sometimes also it falleth out that by meanes of the hardnelle of the excrement in the gutt, the holes of the firring Fxer mut pipe is like to be choaked and hindered from the deliue- for times flopring of the medicine; in fuch a cafe the faid excrement perh the paffage. being onely clammie and not fully hardned, put vpon the end of your firing pipe that first entreth the gutt ouer the Note. holes of the faue ----- a thin oily clout that may couer all the holes,& fo put it in clout & all, thrufting the fame vp to the head or thick part of the pipe; then a very little as it were draw backe your hand,& deliuer your glyfter with fome reasonable good force, thrusting the pipe in the D 2 delivery

sbula Munda required if the glifter cannot have passage. if the body shrough weakmes cannot keepe the glifter.

20

This Seringeis the glifter bag and pipe.

delivery close vp to the body that nothing come backe, the liring being drawne out let it be waffed, wiped, and drawne out of the barrell, as I haue faid, and foin two parts hung vp to be ready for the next occasion. But if you finde fuch reliftance in the gutt that your medicine The wfoof Spa- by the aforefaid meanes will not enter, then with the afore mentioned Spatulum mundani draw out part of the hard excrements which hinder, and then proceed as beforefaid to giue a Glyster. Moreouer many are fo weake and yn-What to be done fit to hold in their bodies any fuch medicine, except you with fometowe, clout, or the like, will hold it in they can take no benefit by a Glyfler : wherefore in fuch a cafe you must be full of humanitic and christian commiferation, not to be fine fingered, squeamish, or disdainefull, but confider your brother by your felfe. Concerning the fubstance of a Glyster, the quantitie to be given, and other neceffary obferuations of that kinde in the Chapters of the cure of the Flixe and Scurnie I have written, to which place I referre the well disposed Surgeons Mate : and looke what for breuities fake I have omitted, the young practitioner must as I have done before him, either by reading, inquiring, or practiling, and fometimes euen by erring finde it out : and if he know more then my felfe, thanke God for it, and let him impart fome to others, and not fcorne this; for to fuch I write it not, but to the young and willing learner. Some may maruaile I multiply fo many words concerning the Glyfter foring , and forget to mention the Glyster bagg and pipe, fo good and auncient preferred before a worke, and fo long in vie before the other. To which I answer; this worke is cleanlier for the Surgeon, easier for the Patient, and may bee delivered with greater or leffer force, as the Artift pleafe; and this inftroment will laft, when the other will flinke and putrifie : and yet I deny not the other to be good, but not to be trufted to at Sea. Thus much of the Glyfter Sirring.

were draw backe your hand, & delider to it any lot.

tone realonable cood force, thinking as pipe an the

21

Of the Small Siringe.

T might feeme a thing vaine to mention instructions herein : for what Barbers boy is not practiled in the vie of the [mall Siringe? Truely few, and yet many Malters to my knowledge erre gollely in the true vles thereof diuers wates, all which were friuolous in these briefe notes to touch. First therfore observe that when you vie a firing, Instructions for let it be cleane; that it be fmooth at the end for gauling ; the rfe of the that it be even armed with towe; that it go not by jumps fmall Seringes nor too fliffe ; and that you carry a fleedy & even hand in deliuering it, & force it not ouer ftrongly, except vpon 2 great reafo. And if the griefe be in the paffage of the yard, 3 as in cafe of Gonoree often times there is exceriations, then 4 in the putting in the firinge it is needfull to reft thy armes 5 in the delivery thereof on the Patients his thighes, hee 6 fitting fomewhat high, or flanding bowing forwards, and How to ve this ftrine not to fill the Gringe too full at once for then then ftrive not to fill the firinge too full at once, for then thou yard canit not easily and fleedily reachin to deliver it : and the first time thou prefentelt it thou maiest if thou please 2 make fhort worke, and deliver it betwixt glans and prepu-3 tium, that is twixt the fkin and the head of the yard, hold - How to deliner ing the forepart of the prepatiam close together, if it may an Inithion. be held together, which ferueth only to walk without the pallage. The fecond time deliver into the pallage fo farre 4 as well thou canft reach, namely to the end of the pipe, if without great paine thou canft effect it, refling thy armes, as is faid, and holding with the one hand the yard as it were in the middelt thereof, or behinde the former part of the pipe of the firinge, namely, not meerely to the head of the yard, not firayning nor prefling that hand too hard onely that the water injected 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 fo in till thy firinge being drawne out, can be filled 5 once againe, and deliver it as the other was, without remouing the hand that holdeth, and that fecond time the water.

D. 3.

Err rsin inie. Bing manifefied.

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2. 3. 4

iections to be resected.

The euslis the caufe.

Injections nas proper onely to she yard. The necessitie of the feringe.

ter will come into the bladder; and observing duely this forme of injection, thou shalt cast in as much water as thou please into the bladder without paine, with onely an ordinary firinge : whereas caffing it in and holding the preputium close as is vfuall, aflure thy felte 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. Alfo let not thy medicine be too hott which thou iniecteft, for that is dangerous, and cold is also bad, so hot as pille is the true temper, or a little warmer. Beware also of Mercurial lotions , I meane any which have Mercurie Sublimate Mercuriall in- Precipitat or otherwife prepared in them, for though they have good qualities, yet they are vpon my knowledge and experience dangerous, vied 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 Uirga, and fo calcine the fame that it shall become impotent to his naturall worke; I know it, and yet they may be with good fucceife yfed in curing malignant vlcers twixt Glans & preputium, or elfe-where vpon the yard, as the daily vie of them declareth. Concerning Lotions or Inie-Etions they shall in an other place be mentioned, God wil-Alfo concerning the generall vies of the firinge, ling. they are not alone limited to Virga or the yard, nor to veneriall causes onely, but they are also of especiall good vie in wounds, vicers, & fistulaes; as also for greefes in the mouth and throat, and may not therefore be omitted in the Surgions Cheft: wherefore I aduife at the leaft two if not three, with ech three pipes, to be ready in the Cheft vpon any occasion.

> Of the Catheter, with alfo the waxe lights to fearch the conduit of the bladder.

He Cathetor may well bee numbered one amongst the needfull inffruments in the Surgeons Cheft; for

if

if obstructions happen, either in the passage of the vrine or necke of the bladder through flime, grauell, the flone, or like accident which by the artificiall vie of a firing cannot be remoued, then is this needfull inftrument to bee vfed, as also to make fearch for the flone in the bladder.

If therefore there be occasion to vie it put it in gently as followeth, namely, with the crooked or dependent part How to vfe te thereof downeward fo farre as it will be put in, being first first instruction annointed with a little oy le of almonds or fome fresh greafe or oyle for want of the first rehearsed, and being put in as farreas 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 refleth or beareth out, then put in the Cathetor yet further towards the fundament preffing or bearing downe, as it were, a little the lower part of the faid inftrument with thy vpper hand which flaieth the cathetor, then together with the help of the lower finger of the other hand turne the cathetor vpwards, putting it alfo withall forward a little and it will flip into the blader, then draw out the inner wier and the vrine will come forth, keeping the inftrument 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 eafily if any stone bee in the blader, the party grieued standing and bending his body likewife forward.

Of the fearching candle.

"Hescarching candle is chiefly to be vsed when there is a carunkell or viceration in the necke of the blader or pallage of the vrine, and then it is vied both to find out the place where the faid griefe is, and alfoto bring apt medicines to the place agrieued; but that worke requireth good deli-

The Viei

The vie.

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The right end griened place, and right paf-Sage thereunto.

24

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 eatily erre herein except he take good regard Wherefore when by the candle you have found the place certaine of of the candle is the griefe with, is commonly found by the ftoppes or to finde out the flaies which the faid candle findeth in the paffage, which found, observe the just length to the further end of the faid ftop or place agrieued, and there if you marke your candlewell, you shall by the fame perceiue the full length

and breath of the difease, then vpon the faid light or candle fasten your medicine which you intend to heale the griefe, with ; as namely if the difeafe be a kinde of fpungie flesh as often it is, a little burnt aluminis ofti, or vitriolum.

of will be fitting medicines , or what elle you know beft for fuch occasions, and print it according to the depretfed part of the waxe into the waxe candle, and conucighit warily to the place, and let the waxe light remaine for a fhort time in the yard, then having a care you keepe it not till the waxe melt too much draw it out, and doe fo againe, and alter your medicine vpon the learching candle as you fee cause, and forget not to vse good iniections also, which helpe much. Thus much for this time concerning the cathetor and fearching candles.

These former recited instruments may be placed on the cheft lid except the glifter pot, their necessarie vies being briefly touched, it refts now to fpeake next of certaine other chirurgicall Inftruments and neceffaries pertaining to chirurgery.

The Saluatorie and the necessarie appartenances.

Sie divers Vna guents at the sory requifite.

THe Saluatory if it containe vj. feuerall vnguents it is fufficient for any present vse, so that they be such as are leaft in a falua- found and good, and molt in common vie : fuchare

Vnguentum

of the Inftruments, and their vfes. Bafilicon. Vngueutum Anreum. Diapompholigos. Dialthea.

But if the Saluatorie have eight roomes, then two more as necelfarie as the former may be added, as namely vnguentum Populeon, and vnguentum Album; concerning the fenot antiffe. uerall vies of these vnguents in their places formewhat shall be spoken of, God willing.

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

The Plaster boxe ought to containe at the least three kindes of severall Emplasters as namely,

Emplast. Stipticum Paracels Diachalcitheus. De lapide calaminari.

What Emplaflers the Plafter box will have at all times readie.

35

for want of Diacalfibios Emplast. De minio may ferue. at all The vies of the infruments due to the Plaster box fol- reading low next and are these.

Sizers. Forceps. Spatulæ. Probes. Stitching needles and quill. Lancet. Burraspipe. Leuatory. Vuula fpoone.

There belongeth to the Surgeons Mate a carefulland especiall respect to be had concerning Sizers, namely, that hee have at the least two pairs of good fizers 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 E well

thy name and place.

25

Surgeons igno- well. The manner of vling them were loft labour to bee wfe and keeping taught any Surgeons Mate, for if he be therein vnskilfull Sizers and Plas he is vnworthy of his place. Wherefore I onely recite Ster box vowor- them for remembrance fake, and likewife for order, hauing fpoken fomewhat of the feuerall vies of each one of the former recited infiruments.

Of the Forceps.

The Me.

THe Forceps are onely to be vied to take off medicines. from difeafes, or fometimes to take out a fpill, a haire, or a loofe bone, or else ought which is offensiue, from a wound, or to draw outought that may by chance come into the earc, noftrills, the mouth, or throte, to the danger of the Patient. Wherefore it is an instrument of continuall vfe, and hath many offices in Chirurgeric.

Spatulaes.

Hevle or abuse of the fpatula, as it hath his office to take out an vnguent& fpread it on lint, can do no offence to the Patient greatly. Wherefore I will pretermit to loofe time in declaring ought thereof.

Of the Probe.

The Pfe.

The abuse of this instrument.

Note

14.5

"He Probe hath already beene mentioned in an other place; but the fmall Probe being a necessarie, meerely belonging to the plaster box, ferueth not onely for the aforelaid vies, but also to clense wounds, vlcers, fistulaes &c. and is a very necellary inftrument which cannot well bee milled : but there is much 'abufe of this inftrument often, by making probation (as the phrase is) for some to shewe a wound deepe, having gotten once within the castis, will. by thrufting it, fometimes twixt the coates of the muskels, fometimes otherwife deceitfully will either indanger the party thereby, occasioning cuill accidents to follow, or fome-

Of the Instruments, and their vifes. 27 fometimes breake the coate of avaine or artery, to the ouerthrow of the Patient, or his great hazard.

Of the fitching quill, and fitching needles.

"He flitching quill, & flitching needles have their due place in the plafter box; wherefore, that they may be the more ready on the fud daine as occasion is offered, for- How many necget not to have at the least three ready needles well armed dles needfull. and pointed of feuerallfizes, I meanethreded with ftrong of what fizer. coulored filke well waxed, and when you flitch beware you draw not the orifice awry, oblique or deformed, but Infractions that you have great refpect to the true beauty and former for flitching. comelineffe of the wounded part, neither let your flitches betoo neere one an other, neither tie your filke too clofe, which will occasion the flitches to breake before their 3 time, for Nature will not be forced. Allo when you would 4 flitch a wound let the hole of your flitching quill not bee forgotten to be set to the one fide of the lippes or fides of the wound which you intend to pierce, fo that it may give 5 a flay to the part when it is to be pierced through with the needle, and it must be just fo placed that the needle piercing through the wound, may also come within the faid hole, which drawnethrough, take away your quill, and fet 6 it fo to the other lide. Sometimes also it happeneth in flirching the lippes, or the fides of the wound lie fo neere each to the other that both fides may at one time be taken vp without drawing out the needle at all, in fuch a cafe the Aitching quill mentioned is not to be remoued from the first place. A double colored filke is the best to stitch with, being waxed, next that thrid will ferue. It is also conuentent to waxe the thrid or filke, or to vfe fome emplaster to rubbe it with in place of waxe. Note alfo that rowling needles be put into the faid flitching quill to be ready : alfo thred to fow rowled together for making the readier and conuenienter ligature in wounds, and vlcers as occasion is, There is also a forme of drie flitching of new woundes E 2 which

which at this time I omit for breuities fake. Thus mech of the flitching quill and flitching needles.

Of the Lancet,

A Lhough at the first it might beeimagined that little I were to be spoken to the Surgeons Mate concerning the Lancet, for without queftion each Surgeons Mate knoweth a Lancet as well as my felfe, yet when I confider the weakenelle of young men concerning the true vie, and the abufes of the fame, and that I call to minde how many good men daily hazard, if not loofetheir lives by the vndifcreet vie thereof; I am at a paufe with my felfeto confider in thefe few lines I have to writte, what I might fay for to furnish the Surgeons Mate with best and needfulles admonitions in fewelt words. First therefore meethinkes it is not amille to aduife him, that he cary with him at the leaft fixe of the beft fort, befides fixe more common ones, for an East Indie voiage: that he oile them, or annoint them with Axungie, and fo wrappe them in oyly cloutes, that they rull not. And that hee onely bring foorth into the aire one at once. Also that hee haue ready conuenient bands to tie thearme, a band made of wolted gartering is the belt, or of a ftrong fine lift; for all bands made of filke or linnen will flide backe. Let him remember alfo that he tie not two knots upon the band for that requireth too. much trouble in giuing the vaine vent, if hee vie a wollen band one fliding boe-knot will ferue, which is easie to bee loofned, or fallned where you would caufe it to bleede better or leffe. Note also that the band bee turned twice about the armeere you tie it : also that this knot lie a loft on the toppe of the arme and on the outlide of the elbow, and not too neere the joynt or the place where the vaine is to be opened. That he neuer open a vaine but first hee haue ready a band and boulfter to make it vp againe. That his Lancets be not too spere pointed, I meane small pointed, for the broadeft pointed Lancers make the beftwork.

Infirmétions concerning the Lancet.

I

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28

3

Conserving bloud letting neceffary admonitions, fi-ft

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Of the Lancet points.

Likewife

Likewife that the orifice be large not deepe, yet not ouer. Of the vaine large, for it is ouerlarge when the bloud tumbleth out without a streame, for that spendeth too much the spirits, and it is allo too narrow when the ftreame is fimall, and that the vaine is puffed vp with winde. Note alfo that if of faintmeffe your Patient incline to fainmelle, or founding, you cause in bloud-letting him betimes to thrust his longest finger of the other hand with a remedy. into his throte, and a little prouoke himfelfe to calling, it helpeth prefently, and let him reiterate the fame worke if occasion be. But if hee chance on the fuddaine, as oft it Offounding in happeneth, to bee gone in a found, beware you lay him bloud-letting not on his backe with his head too low, being in a found as the remedie approved. fome do, for fo you may chance to loofe him. Thaue feen the like once done by an ignorant bloud-letter. Wherefore remember it, but rather bend him with one arme forwards, and with your other hand floppe very clofe his mouth and nostrills, and in very short time you shall perceive windero 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 fo, this is a fafe courfe which with good fuccesse I have vied from my youth to this day.

E. 3

attempt.

be opened.

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attempt not to let him bloud before first hee haue had one ftoole procured him at the leaft if not more, which is fooneft and fatelt done by a fuppolitory, the next fafelt & of the veines to better way is by a glifter. The vaines commonly opened are lixe in number, namely, one in the forchead, one vnder the tongue, 3 in the arme, and one in the foote: The three in the arme are most in vie, whole names are Cepbalicathe vppermoft, or head vaine, fo called of the Greeke word cephalus which fignifieth 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 main or the middle vaine, it is thefecond principall vaine which is generally taken as indifferent for the whole body.

The third is the Bafillica or the liver vaine, being the lowest in the arme, and more respecteth the liver then the two former. But hold this generall rule, that if thou intend the opening a vaine to helpe the liver, and that the liver vaine will not bee well taken, then take the median vaine, for thou mult know that all vaines haue their originall in the liver, for fome armes have but one faire vaine appearing, then it followeth of necessitie thou must take that, for many learned Philitions are of opinion that the fulleft vaine in the arme is beft and fitteft to be taken generally, except fome speciall cause alter their minds : for their words are often qua mains turget mains urget, which may be englifhed, the vaine which fleweth molt, is molt faulty.

Canfes of blouds letting in she forehead.

Pader the tongue.

In the Saphane vaine.

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

The vaines vnder the tongue in the Iquinancie or angine, inflamations and fwellings of the Amigdalls of the throte, or of the roote of the tongue, the liver vaine called Saphane chiefly is taken for womens licknelles, not feene at Sea, though some necessarie occasions chance of the taking thereof in men at fea, for diverting and fometimes for curing

A pecial ob-Sernation conacrning the liner raines

Of the Instruments, and their wses. 31 ring of some especiall diseases, which for breuity having spent my limited time I omit.

Incision Knife.

His inftrument is mentioned in the beginning of the vies of inftruments vnder the title Incision Knife.

The Burras Bipe.

His Instrument thus named doubtleffe was by a Surgeon borrowed at the first from fome Gold or From whenes it Siluer-fmith, and neuer paid him againe ; for the had his origi-Goldsmiths vie it daily, and cannot performe their workes "ad. without a Burras pipe, but the Surgeons make other vie The vie of the thereof, namely for the most part to reteyne coroding Burras pipe. powders in , as Vitriol, burnt Allom precipitate , and fuch other causticke medicines, which well vied performe very much in healing; fo alfo their abufe bringeth fhame to the The danger of Artilt, and often vnrecoucrable damage to the Patient. the abufe of it. For it is common with many Artifts in the healing of new wounds to mixe precipitate either with a digestine Vnguent, An error in or with Basilison, and laid on tents, Dorfell, or plegents ac- healing a new cording to the forme of the wound, and to put it in , as wound obferthey fay, either to inlarge the wound, or to help digeftion, "ed. to take away proud flefh, to mundifie, and the like; and if not pracipitate, then must they be busie with Viriel or Allomburned, or with fome caufticke medicine in that kinde, But I would aduise the Surgions Mate not to vie any coroding medicine at all in new or flefh wounds, but Directions for the cure of a let the flefh grow as proud as it will, the ground being new wound, cleare from whence it groweth, namely if it bee from a wound wherein is no putrified bones; and if fo bee that the wound be full of flefh, and then will not ficatrize, a little burned Allom or Vitrioll will do well, and then to your former dreffing againe, remembring that ech third or fourth dreffing be meerely dry linte, you shall finde good therein,

Surgions wilfulnes as well as vashilfulneffe blame-worthy. 32

Note.

Two cuills to be anoyded.

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8.

therein, and if you only take linte and wet it in a Coper As water and let it dry againe, and lay that linte onely on the proud fleft fometimes for a dreffing or two, and then againe to your former method. Againe it will without paine very well ficatrize any new wound; I fpeake this for that by the vnskilfulnetle, yea and fometimes by the wilfulnes of fome cuill minded Surgeons, I haue feene men lamed by the needleffe vie of caufficke medicines euen in flight wounds, to which if an old wife had onely applied her one falue for all fores, no fuch thing had happened : Yet I am not fo fimple to deny the just vie of fo noble medicines in wounds, vlcers, and fiftulaes, or otherwife where neede is, but I only here aduife the young Artift, that he may not be too rafh in the vie of them, and likewife to aduife him that having vied them once he first paule againe at the least 8 daies, namely till the first E/ker be fallen, and certaine daies after ere he vseany causticke powderagaine; for with the vie of coroding medicines one immediatly after an other, many Vlcers are made more painefull and rebellious then they were, and the bones fometime made foule which were otherwife cleane, which fault is too frequent now a daies, and amongst many groffe faults daily committed by vnexpert Surgeons, this one is to be lamented, namely the vie of keeping open penetrating wounds too forcibly and too long by the vse of hard tents armed with causlicke powders, where by nature can make no true vnition, but is forced into much diforder; which I with young men to make a confcience of, and to be carefull not to erre in that kinde.

This Inftrument is fet downe elfe-where.

Of the Urula spoons.



His inffrument is made to put pepper and falt in, or fine hole, pepper, or falt in, or fome other the like medicine,

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dicine, and to hold the fame right vnder the Uvula, which is for to blow vp into the concavity behinde the fame and no other great or effectiall vfe I know it hath in Surgery, except it may be vfed to warme a medicine in. []Thus much of those necessaries which properly deferue the names of instruments in the Surgeons Chell. And now a word or two of fuch other Apendixes which in their kindes are as necessary as the former.

The Cupping Glasses or Ventoses.

"Here is many neceffary workes in Surgery performed The vfe is di-L by Cupping glasses, namely, fometimes they are vied wers. Firjt to fet vpon a Bubo or botch to bring it forward, and therein they are very good. Sometimes also to fet in the nodell, and on the vpper part of the shoulder blades to draw back humours which oppresse the head, the eyes, or teeth. 3. Or against Lethargy; or on the thighes against aches or 4. paines there; or for the cure of the Sciatica they are very 5 good; or fometimes to draw bloud and spirits to a mem-6 ber withering or benummed : in all these and divers more griefes the Cupping glaffes are very needfull. Sometimes The end why alfo they are fet without fcarifying only to atract humours they are fet to the place. An other time it may be in other cafes they without feari-are vied with fearifying to take away bloud and choler Why with feawhich offendeth the part. Some fet them on with towe; rifing. fome with a small wax light fet vnder them; fome onely The diwrs fetwith the flame of a great candle, which my felfe vfe, and ting of them. is not offensiue nor painefull at all. Whereas the other waies the flame excoriateth often the part, and maketh The best mannew worke vnfeemely: for the better doing whereof I them. vie to place my candle close to the place where the Caps should bee fet, the place being first wet and rubbed well with hot water and a fpunge, and the Cupping glaffes alfo svet : hold your Cupping glaffes ouer the flame a little, and thence

Note.

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Scarification must be light, & Jodaine, O with a Lancet

When to take the Cupping glaffes away. What to bee be taken away. Deepe Scarifying euill.

thence clap it quickly on the place whileft yet the fteeme of the light is in it, and it will be fast and draw hard, but you mult have your Cups fit and not too wide for the place you would fet them on, or elfe they will not take any hold. Further when you perceiue they have drawne well, which by the blacknes and riling of the skin you may eafily fee; 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 vie, then wetting your Cupping glaffes againe, and with the flame onely of the candle fet them on where they flood before, fetting as many cupps and drawing as much bloud as you fee good, and when no more bloud will come, and that you thinke it time to take them away, which is knowne by a . yellow water which commeth at the laft, then I fay it is time to walh the places with faire water where the capps ftood, and dry them with a fpunge or cloth, and onely anoint them with Ung: Album once, and they will bee, done after they whole. The ouer deepe fcarifying it, is not only dangerous, but also painefull, and not Art-like : for if you note well the entis it hath many capillar veines in it, yea and fome great veines, and is Porous, fo that the Artift may by force draw humiditie fufficient from farre, if fo occasion be to vse their vtmost force. Large and wide Cupps are fittelt on the thighes, leffer on the armes, and the leaft for the hands or feete.

Of the Braffe Bason.

Friend learne good by ill.

Haue nothing to write concerning it, but that at the least the Surgeons Mate have one if not two, and if he finde no vie for it let him fell it for good liquor at Bantham, as a Surgeons Mate lately did one of mine.

The quantitie of bloud negle-Eted, care and cure is banifhed .

Of the Bloud Porringers.

Lood porringers are necellary at Sea, to be the more) certaine of the quantity of blood which is taken, fince the

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

Akhough the German Surgeons doe euer let blood Imitation with into a Balon, which I hold not good for the Surgeons idle. Mateto imitate at first, except he be of good iudgement indeed to judge of the quantity : the blood porringers Blood porrinwhich are made for that purpose being full, hold iust three gers necessary. ounces, and fomewhat more: for my owne practife I hold this course; if one chance to come to me of him- The conflicutio felfe, or by aduife of a Philition to be let bloud, though of the body is he be a ftrong body I neuer take from him more then two to be regarded in Phlebotomy. porringers and one halfe at the most, but often lesse, if the party be not ftrong, except it be in cafe of Plurifie, or fome like vrgent caufe, I take leffe; for in that worke except my reason giue me good fatiffaction to doe the contrary, I Too little rather will rather offend in too little, then in too much taking of then too much blood away, for I have feene much hurt to have enfued blood is to bee by great quantity of bloud taken away at one time : for taken away. 7 or 8 ounces I hold a ftrong body may beare to loofe, hauing good nourifhment 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 to behoouefull, but admonish them to warinesse in a point so dangerous.

Of the Dyet Pot.

The Dyet Pot is not alone to be vied in cases of dyet drinke feething 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 even. Quot homines tot set set of any men fo many mindes. Wherefore concerning descriptions of severall 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 mean etill I write F 2 touching

The yfe.

A decollion for the Calers. \$4478.

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X tokes

obferwid.

posed for a

Lafre.

touching the cure of that difeafe. And yet me thinkes fomewhat to speake of a drinke in the cafe of the Calenture, or an vnnaturall hot feuer to be made at Sea to qualifie the heat of the bloud, were not amille, which may be dene as followeth.

Re french barley a iiij. fresh water 2 gallons. Licorice j. E. Cloues nº: 12.

In want of Licorice take inice 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 How to keep it. cleare it, and if it may be, keepe it not in the braffe pott, but in fome earthen or glaffe vetfell, and if the party his Thesemposition heat be great, and have paine in his head, addethereto fo of the drinke if many drops of oyle or fpirit of Vitrioll, as will a little the heat be over change the talte fowerish, but not too tarte in any wife; great and cauand if into all this drinke you put of Rofe water, of wine fetb bead-ach. The colour and vineger or Rofe vineger and Cinamon water, of ech only one spoonefull, it will doe well to mend the tafte, if you strinke is to be haue it, if not the matter is not great, let the Patient drinke often hereof. Further you may if you thinke good adde firupe or juice of Lemons 3-4. If it be for one which is The drinke com- loofe in his belly you may infuse of your succus Acatie herein fome 2 or 3 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 fo put it into the reft. Alfo in want of Acatia if you put therein Galls in powder a litle, it will do well,

Of other necessaries.

He next inflruments in order to be remembred are these following, viz,

Skiller;

Skillet. Chafing diff. Glifter pot. Funnell, Cups to give potions in. One Bord & knife to foread plasters. Morter & Peftell. Weights & Scales. Sines. Searces. Strayners. Splints. Inneks. Tape. Towe.

Spunges. Clomis. Rowlers. Gray papper. White papper. Empty potts & Glaffes, Thrid & Needles. Wax Candles, Lanthorne. Tinder box furnished. Inke & quills. One close stoole. One bed pan. One braffe payle. 20 well burned bricks. Emply baggs. Pipkins.

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

Of weights and scales.

7 Eights and Skales are necellary things, often times lightly regarded, and yet how many mens lives hangs in the ballance, it is plaine enough. For Sea-Surgi- The vfe is dions familiarly give Stibium by the graine, namely from 4. Hers. to 8 graine, yea and to 12 graines by your leave ; when in A great fault trueth few of them have weights and skales which can in weights and weigh one graine. It is a dangerous thing for a Surgeon at scales, Sea to bee vnprouided of neat weights and skales which will turne at halfe one graine: for how can they give either Landanum paracels, Stibium, or other Chimicall medicines fafely, or almost any medicine inward without fmall weights and scales ? Wherefore two paire of weights and scales are very needfull for the Surgeons Cheft, name-13

E 3

Of the Instruments, and their wfes.

A direction in weights,

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

Of the Close foole, with the Paile of Braffe, and the Bricks.

Meane things Sometimes are of great moment.

None worthy to be reputed nest office of The vse of the Close Roole. \$ great.

(ciente.

Lthough I know before hand that I am to vndergoe I many witty and eloquent flouts from young gallants of my owne profession for mentioning so base a subject to belong to the Surgeons charge, as is this last mentioned Clofe-floole with his appurtenances, yet let them know that neither can my booke blufh, neither my felfe I hope fiall have caufe; for I nothing doubt to yeeld to ech honest young Artist a sufficient reason for to satisfie him herein: and in a word my reafon of the appointing to Artiftswhodif ech ship bound to the East Indies at the least one of these, daine the mea- is by reason of the bloudy or other flixes, being fo dangerous difeafes, and fo deadly amongst our men, as I hold it their profession. my duty to aduise even the good of a close ftoole : and I haue caufed the ftoole to haue one doore on the one fide, The needs of it that thereby either things to foment, fumigate, or otherwife to comfort the weake part, might be the better applied, the Patient fitting at his ease thereon.

Alfo one especiall reaso why I have appointed it is; that Obserne this if a poore weake man in his extremities should not continuthou haft aton- ally go to the fbrouds or beake head to cafe himfelfe, nor be noy fome to his fellowes, but might by the help of his Mare through this meane influment finde comfort in his molt pitifull diftreffe, whole miferies I hartily compaffionate. Wherefore I admonish the Surgions Mate in genesall, in the feare of God not to be fine fingered, flothfull,

or

Of the Instruments, and their vies.

or fcornefull to vfe euery kinde of good manuall and other helpe to faue mens blouds in this fearefull difeafe, for their omitting of their duties in helping men thus diltreffed bringeth the blouds of those men without doubt vpon their heads, and though peraduenture they may cary it away for a while with men, yet the Almightie who feeth not as men fee, will furely finde them out.

The paile of brasse vnder the stoole was chiefly appoin. The brasse-pale. ted for neatnetle, cleanlinetle, ltrength, and other good vfes it hath alwaies to belong thereto, and not to any other vie : It may also fometimes be whelmed downe, and The vie of on the toppe thereof a hotte bricke be fet, or the bricke if bricke. you finde it too neere may stand lower, or put into the paile, which hotte bricke with wine and vineger or any other like fitting medicine of experience may be fprinkled to comfort the part agreeued withall, for it is found by experience that the fleeme of wine vineger sprinkled on a hot bricke doth much auaile in the cure of the flix, and The cure of the that fimple remedy alone hath cured many; but when the flixe. Patient rifeth from the faid fume, if then a cloth beewell heate ouer the faid fume or ouer a fire, and put clofe to the part, it auaileth much, and if you then likewife lay the Patient to reft, giving him three or foure graines of Landanum you shall do the better, and by Gods helpe with other answerable good regiment of dier, make a quicke and perfect cure of his difeate. But I am not ignorant that there is vie for twentie close stooles at once, in fome one thippe, which worke the Gooper and Carpenter may take in charge, such a providence in child we brow on

Thushauing briefly runne ouer the most necellarie vfes of the particular Instruments, and other necessarie a- The conclusion. pendixes to the Surgeons cheft ; it followeth next to beginne with medicines Phyficall and Chirurgicall aswell fimple as compound within the cheft, namely, fomewhat, though very briefly to touch their most common vies and vertues for the helpe of young Practitioners.

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AN



AN ABRIDGMENT of the vertues of certaine Emplaisters mentioned which are most vosuallin the SVRGEONS cheft.

Emplastrum stipticum Paracelsi.



His composition deuised by the famous Philosopher Philipus Theophrastus Paraceljus excelleth in the cure of piercing wounds, and scabs ; as also in the cure of all dangerous

wounds whatfoeuer; it hath the precedence as well for contufed as infized wounds, for it alfwageth paine, defendeth from accidents, difcuffeth, mollifieth, attracteth, digesteth, incarneth, and confolidateth: and is alfo good for an old ach proceeding of a cold cause. It is further especial 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 fee Paracelfine his owne words, which I have here inferted.

Hoc Emplastrum est magis virtutis dinina quam humana, Valet ad omnes plagas, nouas & antiquas. Abstergit, mundicat, carnem bonam generat, consolidat ex fundo plus una septimana, quam mind quod cunque in mense, nec permittit sieri aliquam putrefactionem & corruptionem, nec malam carnem generat. Valet omnibus neruis incisis vt conquassatis & musculis: Valet omnibus inflaturis, abstrabit ferum & lignum, & plumhum

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bnm de plaga, eidem suppositum; Valet contra omnes morsuras, ensuscunque morsura bestia Venenosa, & puncturas Serpentis: maturat, sanat omne generatum cuius cunque Apostematis, superpositum: Valet in membris generationis, si ibi fuerit corruptio: Valet contra Cancrum, sistulas, contra ignem persicum, sedat dolores cuius cunque plaga. Hac Theophrast, Bombast.

Diachilon Magnum cum gummis.

This Emplastrum ditfolueth, maturateth, and mollifieth hardnets, & is principally good in Apostumes, it is of temperament warme, and moilt, it was first deuifed by a certaine ancient Artist named Serapis, and Auicenna as somethinke invented it; but others indge that Mesues was the inventor thereof.

Diachilon parunm.

This Emplaster is very good to diffolue schirras, tumours of the liver, splene, raines, belly, or elsewhere, it is wholly composed of mollifying and discussing ingrediences; it ferueth 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 minerall may be called either hot or cold Litharge is cold Without question, it was deuised by Messes.

Diacalstheos.

This Emplaster mittigateth paine, it is a good defensatiue against all venemous humours, and will very well induce a liccatrize in wounds and vlcers : also it hath an especial good qualitie to atswage the paine in the small of the backe proceeding from distempered kidnies by hotte causes, as well concerning the stone, the grauell, as also in Generrea, and dissoluted or relented with oyle of roses, of elders, or of linsted; it is a very good medicine to heale G

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burnings, and fcaldings: it was deuifed first by Galenus, of temperament it is cooling, and drying.

Empl. Oxicrocenm.

T His is a very ancient composition, but afcribed chiefly to Nicolaus an ancient Writer as Author thereof, it is of quality anodine, attracting, mollifying, and comforting: it alfwageth 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 seate 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 fplene.

This Emplaster mollifieth all hardnesses of the Liver, fplene, and ventricle; ditfolueth windinesse, ceaseth vehement paines prouoked by winde, as namely, in the difease called *flatus bipocondriacus*, which is a flatious or windie paine gathered neere vnto the Spleene: it is also gemerally good against the gathering together of any coiealed cold substance in the stomach, or liver: of temperament it is warme and comforting exceedingly: It was deuised by Messes an ancient writer.

Empl. Melilotum fimplex.

This is good in greene wounds, for it draweth and healeth well: alfo it attracteth and bringeth forward a cold Apofteme, and is an efpeciall fecret, and the beft thing I ever knew in curing kibed heeles and chilblanes: it is of temperament hot and moift, and was devifed by Mefues.

Emplag.

Emplastrum de lapide calaminari, or Grisium.

This Emplaster (I may speake of my owne experience) is a good healer of vlcers which are hard to bee ciccatrized, and hath an especiall vertue in curing of *bubbees*, as well veneriall as pestilentiall: It is also the best incarnative of all the Plasters that ever I vsed.

Emplastram 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 induce th also a good ciccatrize. In the tumour of *scrotum*, or rather of the Tellicles called *Hernia humoralis*, commonly following the suddaine stopping of *Goworrhea*, it is a very conuenient anodine and discussing Plaster, but in another place I intend to set downe my belt practise in the cure of that difease, as a thing in charitie behoofull for young Practitioners, to which I referre you, only note that this *Emplafrum 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 stemachi 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 cheft, for it comforteth much the liver or stomacke debilitated by cold humors, and helpeth wel digestion, in want there of Paracel/us Plaster though not so fitly, may ferue.

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A N ABRIDGMENT of the vertues of certaine vnguents most vsuall in the Surgeons cheft.

Unguentum Basillicum.



His Vnguent doth digeft and incarne wounds and vicers, and will also prepare and bring to superation an Aposteme either hot or cold, being somewhat thicke spread on towe, or lether and applied thereto: it also mittigateth

the paine and pullation thereof, and is likewife very fitly mixed either with precipitate or Vnguentum Agyptincum, or the like medicine, the more easier and better to mundifie and clense an vlcer: This vnguent is of temperament warme, and is ascribed to have beene deuised by Gallen, it is also good for burnings, and scaldings.

Unguentum Apostolorum.

This vnguentum ferueth well to clenfe and fcower vlcers, and fiftulaes, and to make a good ground to healing: it is oftemperament hot and drie : it was deuifed by Anicene, named Apoft clorum, for that it confifteth of 12. fimples, ioy ned into one body.

Vnguentum Aureum.

T His Vng. ferueth well to incarne wounds and vlcers, being first well mundified : it is also to beevsed as a balme to them to heale them, and is a good healer of burnings

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nings & scaldings, the fire first taken out : The composition which I doe make is of the practile of *Iosephus Quercitanus* whole good vie I have made triall of, which I meane with the reft of the compositions to publish in print.

Vnguentum Ægyptiacum.

This Vnguent ferueth to feower; it mundifieth all rotten foule vlcers, and is belt to be put into the griefe fealding hot, and then the vfuall paine and corofion it procureth will be quickly paft: in like manner it is to be vfed in any venemous wounds made either with poiloned flot, or bitten with madde dogs, or any other venemous or great contufed wounds, wherin for preuenting them from feare of a Gangreene it excelleth. It ferueth alfo well to be vfed alone or mixed with any lotion for vlcers of the mouth and throte, especially in the feuruie. This Vng. drieth vehemently, and is absterfine: of temperament hot and drie, and was deuifed by Mesus.

Vnguenium Album Campboratum.

This Vnguent is very good to coole, and heale any hot, moyft puffles: 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 vicer, for it affwageth paine and healeth well. It was inuented by *Auicene*: of temperament it is cold, anodine, mollificatiue, and attractive, and therefore of very good confequent in the Surgeons cheft.

Vnguentum Diapompholigos.

T His vnguent is good to heale painefull vlcers in any part of the body, especially of the yard, or betwist glans and preputium, as also any fretting or painefull vlcers G 3 of

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

Vnguentum Pectorale.

IT fwageth the paines and flitches of the breaft and fides; eafeth the cough, helpeth expectoration: it helpeth to digeft groffe humours, and to attenuate them: and warmeth and comforteth a cold ftomacke. This composition is fet downe in the difpenfatory of Augusta.

Vnguentum Rosatum.

THis is vied against inflammations, and Ignis facer, and all hot paines of the head: it allwageth the paines of the Liuer, kidneics, and belly proceeding of heate, and hath vertue to corroborate. It was invented by Messer.

Vnguentum Tripharmacon, or Nutritum.

This ferueth well to cure an Eryfipidas, excoriation, or bladderings of the skin: fuch alfo as are termed the Shingles: it is alfo good for to take the fire out of burnings and fealdings: and for any moilt humour flowing to any vlcers in any part of the body being foread vpon cap paper thin, and laid ouer the whole diffempered part: and against any fleight feabbines or itching humour whence foeuer it is: alfo an especiall good defensative against any scalding or vitious humour flowing to any vlcer; of temperament this Vingment is cold and dry. It is fubies to divide itfelfe, namely the oyle Litharge & vineger afunder,

as and 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.

His ferueth well to allwage the paines of the Scurny by anointing the parts greeued therewith. I may iustly fay vpon the experience of diuers skilfull Surgions, and my owne alfo, that as well in hot as in cold Countries it hath been found exceeding comfortable and behouefull, that scarfe any composition of an Unguent in the Surgions Cheft may compare with it, which fome may thinke is a very abfurd affirmation in reafon, but that experience will haue it fo. It is good alfo to anoint the Temples, to prouoke reft in hot feuers : as also the palmes of the hands and foles of the feet. It is likewife good to be applied for fwaging of paine in any part of the body, and being applied cold vpon a Plegent where you have laid any coroliue medicine; it eafeth the dolour of the causticke medicine. Of temperament it is cold & moist, it was deuiled by Nicolaus.

Mel Saponis.

MEl Saponis is Hony and Sope mixed ana: partes aquales, and is a medicine appointed to be first applied opon 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 Tripharmacon, or an infusion of Vineger, and Litharge, namely R Litharge of gold in powder § 4. wine vineger lib. j. mixe them well, and boile them very gently a little on the fire, the Vineger will become fweete as fugar and very anodine : foment the greefe therewith, and you shall finde prefent ease to the party: Or take Populeon and unguentum album mixed, and apply it on fost cap

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eap paper, first being well rubbed with your hand to make it fost: or take *Diacalsithias* or *Minium plaster*, and mixe it with *Lineseed 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 lohannes Wikerus his dispensatory, pag. 1174. I have 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 Diacalstcheos or Minium mixed or relented with any of the faid oyles, or any other fitting oyle, as oyle oline simple: also vnguentum Basillicon is very good in burnings and scaldings.

Unguentum contra (corbutum.

The composition of this Ungment is recited in the cure of the Scurny. I have had the practife thereof and found it very good to attenuate große tumors of the Scurny, to alfwage the paines of them, and by the vse thereof to diffolue fuch tumors. I vse this Vngment in cold causes, in want whereof vng: Martiatum, or Olemm Laurini or Dialthea : but in hot griefes and very painefull I vse Populeon.

Ungnentum Dialthea compositum.

His Vnguene Nicolaus an ancient writer feemeth 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, mollisieth, and comforteth all the parts of the body which are euill disposed through cold infirmities. It is also good against stiffence & paines of the ioyats in the Scarry.

Dialthea simplex.

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

Vnguentum potabile.

This Vngnent is a fure Balfame for wounds of any fort, or in any part of the body, either penetrating or not penetrating; in wounds penetrating either inject it warme, or powreit into the wound. Allo vpon any occasion it is to be drunke $\frac{1}{2}$ - j. or $\frac{1}{2}$ - 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 $\frac{1}{2}$ j. without feare: but I give vsually but one dramme or $\frac{1}{2}$ - ij.

Vnguentum de Mercurio.

Hane elfe-where faid, and it is too much apparant, that for healing and killing, Mercurie hath no fellow, and where I recite Mercurie in any of my inftructions, you must vnderstand me Quick-filser. for fo it is truly stilled by the Learned, and not without good reason. This Vnguent, ioyne with it what other ingrediences you please, yet if Mercurie be one it will shew his valour in despisht of the rest, though it have 20 for one odds against him; so puissant is that Volatile & excellent spirit of his, which I may boldly fay could truly neuer be tamed: and yet many worthy medicines are made thereof, as in their se-H

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uerall places I meane to explaine as I shall haue time, God willing. You may make this Vnguent of Dialthea, olenme Laurini, ana. lib.fs. Mercurius vinus. or quicke filuer 3 ij. oleum fice or Tereb. if you have them ana. 3 fs. & if you fee caufe in very cold bodies you may adde of Euphorbium in powder 3-ij. This Vnguent is good to prouoke a flux. You may make it of one of these Vngments alone for neede. But I wish not the Surgeon to carry any of this Vnguent ready made to the East Indies : for the Quickfiluer, it is to be feared, will fall to the bottom; but if he will needes haue it ready made, let him adde to the compolition, wax a sufficient quantitie, but it must be made, as followeth. Your wax and vnguent mult bee melted together, which being yet warme R Terebinthine clare 3 j. being put into the bottom of the wodden bowle, or braffe bason, not a pewter bason; and ftirring it fo long till all the Quickefiluer be cleane loft and turned into a blew falue no more to bee feene; 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 ftrongly till it bee cold. You must vie it cold, and either let the Patient himfelfe chaffe it in till it be warme, or which is better let the Patient fland afore the fire & chafe it in. But note, he which anointeth others therewith if he vie it too often, let him put a bladder on his hands, for the often vie thereof caufeth many cuills. This Unguent hath as many vertues as vices, and as many vices as vertues, a whole weeke may be eafily spent with good profit to the Reader in writing of Mercurie, I hartily with fome learned and worthy man would take it in hand truely to anatomize that fubiect : I am perfwaded, yea and know well, he might therby faue the lines of many an innocent foule, who with great infamie perifh through the inordinate vie of this Vnguent, and yet the medicine is good : but I referre the Surgions Mate for the vie of this Vnguent to read Mr. Clowes his booke of Surgery.

But

But concerning the ordinary vses thereof, if you anoint the ioynts therewith it killeth the itch, but if you anoint too plentifully it prouoketh a flux, fometimes vpward, fometimes downeward. If you anoint the feames of his fhirt which is lowfie therewith, it driueth away all the lice: the fame it doth to the lice of the eye browes and fecret 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 Vnguentu Album wherein quick-filuer is mixed, namely of the Vnguentum 3 j. of Mercurie 3-j mi/ce, 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, whole defert to the Common-wealth was very great therein: for it is as fufficient a Balme for new wounds, especially in the head, as that a better can fcarfe be found out by Art. It doth all the intentions of healing a wound in the bead meerely of it selfe, the flux being stayed. For it digesteth, mundifieth, incarneth, and ficcatrizeth; it defendeth from accidents, and is very anodine: it may also fitly bee applied to painefull vicers and fistulaes vpon occasion. The Author or manifester of this Linament was Franciscus Arceus, in a small Treatife of Surgery of his, translated by M^r. John Reade a Surgion. It is of temperament hot and moist.

Unguentum Aragon.

This Vnguent is numbred amongft the 4 hot Vnguents. Itprofiteth generally against all cold effects of the outward parts of the body: it much warmeth and comforteth the finewes: it is good against convulsions & cramps: it is good to anoint the Ridge bone of the backe, and the parts neare the kidneis against the paines thereof: and H 2 also

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allo to anoint the flomacke & belly vpon any cold griefe : it is good to annoint the body for them which haue the quartane feuer, the falling ficknes, the paines of the ioynts: and allo it is good to be vied as a Morbus oyntment, according to the common phrafe, adding the due quantitie of *CMeremrie* thereto, which I account to be of *Quick-filuer* 3 ij to the Vnguent lib. j. But I finde it will not retaine his vertues aboue one yeare, as witneffeth Iohannes Iacebus Wikerus. Wherefore I forbeare this composition in the Surgions Cheft.

Vnguentum Martiatum.

His Ungnent, as it is composed of many ingrediences, fo it is faid to be effectuall for many greefes: for faith the Author, it discusseth cold causes in the head finewes, and ioynts : it remouth the paine from the breaft and ftomacke proceeding from cold : it preuaileth against convulsions : it helpeth the resolution of the finewes, dead palley, and them that are troubled with the Sciatica, or hip gout, the gout in the hands, feete, and in other the joynts of the body. It mollifieth hard puffles and tumors in the fielh : it allwageth the hard fwellings of the Liuer and iplene : eafeth the paine in the finall gutts : it cureth the ach in the reynes. It hath his name, as Salaritanus faith of Martianus; or as Maulius which is more probable faith of Martiatus, a most skilfull Philition supposed to be the inventor thereof, and it is defcribed in the Dispensatorie by Nicolaus Alexandrinus, who alfo describeth the vertues thereof in effect as is here fet downe.

Axungia Porcina.

CAlled Axungia of annointing the Axel-tree to make the wheeles turne eafier about, for which many vie it to this day. It is liquid flowing like oyle with warmth:

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it hath a lenifying and anodine qualitie, and therefore it is not vnprofitably vfed for mitigation of that pe humors, alfwaging of paine, healing of burnings with fire, and very fitly mixed with Cataplasmes appointed for those effects.

Axungia Cerui.

His Arungia is of a hot nature, doth affwage aches, refolueth and mollitieth hard tumors in any part of the body, and by experience is found very good, administred in Glitters to heale the excoriations of the Inteflinum reflum; for it is anodine and very fanatine. The manner to vie it is fomewhat touched in fome other my instructions elfewhere.

Mel fimplex.

C Nglifh hony being yellow, the fapour and odour plea-L fant, being fharpe, pure, fincere, cleare, fast or stiffe, yeelding little fpume in decocting, is good and very profitable for those that are costique, good for the stomackeif one drinke it with water : it helpeth the bladder & reynes : it is good for the eyes : it mundifieth, openeth, and hea. leth: and for burnings and fealdings it healeth them without fcarr, and is very good to heale vlcers of the eares: and (faith Diofcorides) drunke with water is wholefome for the belly and ftomacke : and allo for fuch as are pained in the kidneis and bladder, it helpeth them. It is alfo good to be anointed in the eyes to cleare the dimneffe of fight in them : it hath an abstergent or clensing force : it openeth the mouthes of veynes, whereby it alfo draweth out fordid matter or quittur from fetid vlcers. But the best hony of all other is that which is gathered in Lycoania a Province 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 Tillie or Tili, in the Germanetongue linden holt. This hony is white, hard, and wery fragrant or odoriferous,

of



Of the vertues and vses of fundry Cordiall Waters.

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Aqua Calestis.

Atheolus in his Commentaries vpon Diofcorides, fetteth downe this excellent water, as a principall Antidote or preferuatiue against all poysons, or poysoned or infectious aires whatsoeuer, so that either received into the body, or but onely smelled vnto, it helpeth very much against infections, and that it doth also very admirably reffore againe one fallen either of the dead paulse or falling lickness, and is also good either in the collicke or any gripings of the guts, as also in any the weaknesses of the tomacke, 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. Steenens Water.

This Water needeth no man to defcribe his vertues, being a thing fo common and ancient in vfe, compofed by that learned Phylician of worthy memory fo 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 queftion if you will but beleeue the feller thereof.

Roja Solis.

This Rofa Solis, or rather Roffolis, taketh his name of an hearbe fo called, which hearbe is very medicinable, as namely against confumptions, it hath beene often approved and found a certaine remedy, but the Rofa Solis composition being without deceit made, is farre more precious, for it comforteth the stomacke and braine, helpeth digestion, strengthneth the appetite, openeth ob. structions, is good against the paulsie and falling sicknes, and hath many other vertues.

Cynamon Water.

This Water doth comfort & firengthen the flomacke, the liuor, the milt, the lungs, the heart, the braine and the finewes, fharpneth the fight, is good againft venoms, as alfo the flingings and bitings of venemous beafts, helpeth a bad or euill fauouring breath, is good againft lothing of the flomacke, and where you defire to warme, to open, to atenuate, digeft or corroborate, in all fuch cafes this precious liquour excelleth, witnets I scobus Wikerus alledging Mathiolus, yea and divers other famous writers, and Experience it felfe.

Lymon

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Limon Water.

This is the tincture and chiefe effence drawne by fpirit of wine from the rindes of Limons, which is a great Reftorative to mans nature, and a precious Cordiall, which not onely aromatizeth the flomacke, but much firengthneth the feebled Spirits, and is as an healing balfam to all the inward parts of the body, and doth open obfiructions and breake the winde in the flomacke exceedingly. Inyce of Limons is touched elfe where in the cure of the Scuruy.

Rosemary Water.

This is a great comforter of the braine, tharpneth the fight, helpeth the weaknetle of the ftomacke, preferueth from vomiting, is very good against the difeale Differtery or the bloudy flixe, 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 heere to recite.

Saffafras Water.

The Spirit of this precious root is a great opener of all obstructions or stoppings in the body, namely of the liver, 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 isundife; it is an approoued remedy also against colde feuors and the dropsie, or those which are enclining thereto, for it prouoketh vrine and sweat, in a very milde and naturall manner, and driveth out many diseases by the poores of the skinne, and hath infinite more vertues afcribed vnto it : the best of the servers grow in Firginis : you may read Monardus of the vertues of this roote more at large in his Treatife of New Spaine.

Anis-Seed

Anis-feedwater.

This water as the former, and also those which follow, have all their substances from the Spirit of wine, and must therefore being truely so made, retaine the manifold good vertues thereof : and besides having 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 Tiscke and shortness of breath, it also breaketh flegme and warmeth the stomacke.

Worme-wood Water.

No water whatfoeuer more gratefull to the flomacke, then is Worme-wood Water truely composed, for it is as balfam thereto. It confumeth and breaketh winde mightily, killeth the wormes, whereunto our nation are fubiect 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 effected 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 safe and some prouveling of speedy delivery.

· doum ai Aled anne Angelica Water.

A Ngelica water may serue well in stead of Trekell or Mubridate, for a preseruative against the plague or any infectious aires, for there is no one thing more com-1 mended

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mended by ancient and moderne writers, in that kinde, then Angelica is, nor of more experiences, and is also very ftomachicall 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, liver, spleene or milt, helpeth concoction, stayeth vomit, and is very cordiall.

Aqua Cardui Benedicti.

Chead, confirmeth the memory, cureth a Quartane, prouoketh fweat, and comforteth the vitall Spirits.

The Conclusions.

LL thefe waters and fpirits rehearfed, though in I themfelues they be good, yet if any of the beft of them be abused and immoderately taken, they may as foone doe harme as profit : I aduise therefore no man to make a common vie of them, or any of them, which hath a young able body, and may have a good diet at his pleafure : for they are cheefely to beevied at fea, where mens bodies by variety of the venemous vapours and cuill dispositions of the aire, or vnkinde diet, are in hazard, or where there is a weake ftomacke, euill digeftion, with a lothing disposition to meat, euill appetite, too much loofeneffe of the belly, allo where by extreame heat and fweat the fpirits of the body are exhausted and spent, or where through the extreame cold of the fame, the body is much annoyed and endangered: In all thefe 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,

digeftio; or them which have weake ftomacks, or that are of fad & melanchole difpositions, for it must not be denied that wine comforteth the heart of man, and these waters have their originall and whole force by the spirit or life of the wine, and thereby do exhilarate mans heart, and give him courage as well as cure his infirmities.

If therefore these waters be truely made, they ought also to be frong of the spirit of wine, otherwise they will not keep long good, neither are they profitable nor wholsom, and being good, one spoonefull at one time is sufficient, or two spoonfuls at the most, for the preserving of health, they are best to be taken falling, one hower or two after dinner, and last at night, either alone, or with beere or wine, some make a tost 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 caufes or much crudity, three fpoonfulls or foure may be vfed at once in a glifter, but you muft not boyle it therein, only when it is ready to bee adminiftred; but if you put it in otherwife the fpirits will cuaporate and be of no force.

Aqua Rofarum Damascenarum.

DAmmaske Rofe-water dothrefrigerate and comfort the heart, is good against swounding and causeth sleepe.

Aqua Rofarum Rubrarum.

REd Rofe water doth refrigerate, binde and corroborate the vitall and animall faculties : benefitteth the head, eafeth the pained eares and eyes, and doth good in Inflammations, and is profitable in medicines against Differtery.

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Aqua

Aqua O dorifera.

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

Aqua Plantaginis.

PLantane water is astringent and fanatiue, good to them that are in a confumption of the lungs, in a dropfie, or that have the bloudy flixe, against the quartane ague, and cureth the vlcers of the reines, bladder, and excoriations of the passage of the yard, and being drunk, helpeth against ardent vrine, or the sharpnetse of the water.

Aqua Falspig.

FOr this water, if you defire the composition thereof, FI referre you to the Authour, namely Gabrielus Fallopius in his Treatile De Morbo Gallico : but heereafter I meane to fet downe fome feuerall compositions thereof, for the Authour hath divers.

It is a water proper : cheefely of Mercury fublimed, I fay cheefely, for that though the other thing for quantity be ten for one, yet fublimed Mercury will carry no coales, but will ever the his valour in healing or fpoiling : I put not this composition ready made into any Surgeons cheft, but leave rather the Ingredients, and let the difcreet Surgeon make it to please himfelf, for if I my felfe thould find tuch a composition made by any, I thould much feare to vie of it, and fo I with the Surgeons Mate to doe in all Mercuriall Lotions, and rather let him vie fuch other good Lotions, as are fet downe in the cure of the Scuruy, vnto any which hee may adde fublimate, and rearme it if he please, Aqua Fakopy, but I fay let him well waderfland

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

Aqua viridis.

"His Greene water which is held a maximum by fome Surgeons hath his tincture from Viridi Are, and likewise his astringent tast, and vertue, his chiefe vsealso is concerning the cures of Opthalmie in the eies, and alfo against divers rumes, or distillations of humors troubling the eyes, guttatim or droppe-wile administred, the detcription of whole compolition I referre the Reader to the relt of my compositions, where they shall bee found together ; but I vie in place thereof Lapis medicamentofiu, which in his place also shall be spoken of.

Aqua fortis.

Qua fortis or ftrong water : I haue, to latisfie fome A Surgeons, put this water into their chells, but for my felfe I leeno reason for it, I know no Chirurgicall vse it hath which is not far better performed by oyle of vitrioll, wherefore I referre yourather to oyle of vitrioll, for it is a farre fweeter and furer medicine, as at large shall be spoken of in his place.

Verince.

TEruife or Veriuce made of the iuyce of crabs is a good cooling medicine to be given in drinkes against burning feuers, it helpes well digeflion, caufeth appetite, rellisheth well meates and drinkes, and is cordiall, familiar, and pleating to the tafte ; but it will not live aboue one yeare in good force at Sea, yet I give way to the putting it into the Surgeons cheft, for that it is often delired by Surgeons. Lotion

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Lotion.

Otion: 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 fort do: A lotion compounded of vulnerary hearbs in their prime gathered and decocted with Alluminis and mell in aquapura, this Lotion I confesse may retaine a name generall as well as any one outward medicine I know, for well prepared, thereof are good vies made, as namely and most commonly it is all in all to be vied as an injection generally for griefes of the yard, as well within the patlage as also twixt glans and preputium, and in Gonorrhea, which though it cannot cure the difeafe, yet it healeth the excoriations thereof, and frengthneth well the parts, and fo doth it in all exulcerations of the fame, remembring that if you vie it within the pallage of the yard, if you find it bee too tart of the Allome, you mixe it with Plantanwater if you haue it, or for want thereof with faire water. Note that for the first time you beginne iniection, let it be very gently done, then you may fortifie it as you fee caufe. namely giue it of it felfe, or with the addition of a little well duffified mercurie where occasion is, but that warily, namely, feldome or neuer within the paffage, but twixt glans and preputium daily, if you will vpon iuft 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 become in fuch cafes every old wifes medicine : I have 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 fuch a Lotion, though it be not in all points answerable thereto, yet he may make a good Lotion at lea of fresh water, Allome, and Hony, prouided he be wary not to be too plentifull of the Allome.

Lixinium

Lixinium forte.

T His is to be vnderftood Capitalllees, a very neceffaria medicine to be at hand in the Surgeons cheft, to mollife the liquid or white cauftike when it groweth dry, and alfo if need be by decoction per/e to make vp a lapis infernalis as fome tearmeit, or a hard caufticke ftone: the liquid caufticke is made only of vnflaked lime and ftrong Capitall lees by decoction together to the thickneffe of an vnguent, and when occafion of application thereof is, lay on the griefe a minium or fome other cleauing Emplafter with a hole cut therein, fo bigge as there fhall be occafion to make an orifice, and thicke fpread the white caufticke thereon, & let it remaine thereon at the leaft two houres, hauing a care fo to defend the fame that it doe not fpread.

The causticke ftone if you boile it to a just confistence and having put it out, being yet warme, fmooth it ouer with an iron splatter, then with a knife cut it into pieces, you shall have 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 defire, and yet it maketh greater spread with less paine then the other. Somewhat of this manner of incision I have 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 Treatile of falt

Aceturn

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Acetum Rofarum.

VNderstand that vineger of Roses is or ought to bee vineger of wine first, and then by the infusion of red roseleaues elect therein it is the more fragrant and cordiall, so that it is the better to aromatize the stomake, 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 difcouraged though he have not Acetum rofarum, for acetum vini or wine vineger will ferue well in place thereof, and yet better if you have Rofe-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 cafes the one may stand for the other very well, as also for those grieses.

Acetam vini.

W Ine Vineger helpeth the vnnatural fwellings of the belly, as alfo cureth the fluxes of the flomacke, the parts grieued being fomented therewith : it flaieth the inordinate menstruall fluxes, the region of the liver or the bearing parts fomented therewith warme, namely with fupes wet therein. It is good against vomiting, the stomake outwardly fomented with warme flapes wet therein : It alfo discutseth and diffipateth violent hot tumors in their beginning, yea even those which are named Panaritie, or as some tearme them fellons. Good wine vineger excelleth, vied in Cataplasmes ; as also in fomentations where anodine Medicines areto be vsed, prouided the place bee not excoriated, as 'namely in Hernia' humorali. With beancmeale, and oyle of Rofes it is a prefent helpe well applied, with alfoapt truffings and care had. In the falling downe of the fundament it is approued good, fometimes with wine

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wine vied warme to foment the part withall, as alfo to bee caft on brickes to recieve the fume thereof. In the hotte Goute, and in all inflammations, as the Rofe, or Ignis facer, 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 firupe with hony, then rearmed Oximell, or with fugar, then tearmed Oxifaccarum, it is very convenient to a weakestomake, for it causeth appetite, and is a helpe to digestion, giuen zi or zij at once, for it cutteth away flegme and refresheth nature, and corroborateth the ftomake, allo by way of a Gargerifme : it is an approued remedie againe Squinantie angina, or any the fuddaine inflammations of Columelle, or the Amigdales of the throte, and if Roles be put therein, it is for all the aforefaid vfes, 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, confidering the different effects thereof, for I should not doubt to give reasonable content to any vnpartiall Artift that it doth both the effects of a hot and cold medicine, proouing it both by authoritie and practife to be hot and cold, yea even by Galen himselfe, Teste cap. 6. lib. prim. simpl: med. & cap. 20. einfdem libi on mbaad auft anistas la d'aibans reatile of S. h . and o mar mare adulate

Spiritus vini.

Spirit of wine of all vegetables is the most pretious thing, Sit is the trues cordiall amongst all cordialls, the particular vertues thereof to be duly handled would fill a great Volume; it is called, as is faid, Spiritus wini, quasi Spiritus wite, and the faceed Scriptures tellifie 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 subject.

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

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

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

It preferueth 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 fafely be given as a true restorative medicine. All forts 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 remainer 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, vsers, filtulaes, and many other infirmities if time would ferue, which for want of leafure I must pretermit.

Spirit of Vitriole.

FOr this medicine I referre the Reader to the generall Treatife of Salt, and to that part which mentioneth Oyle of Vatriole, where he shall be satisfied.

Spirit of Terebinihine.

This Spirit of Terebinthine is a fubtile, volatile, pure, and a chriftalline fpirit extracted from Terebistibine, which how much the more noble the fubiect is, fo much the more excellent will the fpirit be. It hath many pretious vertues medicinable, contained in it : it is wholy combuffible, penetratiue, of a warming and comforting faculty: it is a good menfrum to draw Tinctures by, either from vegetable or minerall medicines, and chiefely it is vied to extract the tincture from Sulphur, which tincture

ture is a fingular good medicine many waies, as in his proper place I meane to touch. This faid spirit is a true Balfame in the cure of all new wounds, especially of the finewes. It comforteth all the finewy 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 feruing for a cold difease to amend the warming force thereof, and to caule it to penetrate the better. It hath many other fingular good vies, which for breuitie I must passe ouer.

The white Caufficke.

His kinde of Caufticke taketh his vertue from the vegetable falt it containes, and may well be carried in the Cheft, for that it will last well an East India Voyage, with fome times the addition of a little capitall lees, as neede shall require, namely when it groweth too hard. It is altogether as fafe and fure as the Caufficke ftone, but not fo fwift in working, neither fo well to bee ruled, for it will often fpread three times as wide as it is intended, if it be not warily preuented : which thing is dangerous to the Patient, & difgracefull to the Artift. 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 faid, and with one of the faid peeces held in his one hand can perforate the Apolteme, it is otherwise all one with the former white Cauflicke, for being laid on, it will become liquid as the other. It is not fufficient fafe to cut a hole, as the vie is, in a fpread emplaster of the bignesse he would hauchis orifice, and fo lay it on, and couer it with a like emplaster : for that this course cannot hinder the spreading thereof, but if hee will

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will worke furely after that falhion, I meanewith any potentiall Caufficke medicine, let him cut from a rowle of fome foft emplaster that will cleaue well, a peece of 3 j. in weight, or thereabout, and make of it two long rowles, laying one on ech fide the place of the Apofteme appointed to be pierced, bringing them at ech end together, for the ends of a Cauflicke incifion ought to be narrow, and the middell broad, if it be artificiall, at least twife as long as broad is a good forme and rather more. Regard alfo that your incition be made as neere as may be according to the length of the fibers and mufkles, and alwaies that it be fo made that one end be more dependent then the other; but in Buboes of the emunchories it will feldome fall out fo, for that you are confirained to follow the forme of the tumour, which commonly lieth thwart, chiefly in veneriall Buboes in Inguine or the groyne. Like wife if the tumour be full, and the Patient in great paine, you shall doe him great cale by piercing the Easker in the middeft, so soone as it is made to discharge some of the matter. But note this as a generall rule, neuer preffe out the matter too forcibly, nor take too much at once out. For howfoeuer you may juffly alledge and conceiue it is putrid & offenliue matter, yet know it containeth naturall calor, & some spirits, and any sudden enacuation thereof will weaken & perhaps ouerthrow your Patient. Wherefore except fome extraordinary caule vrge you thereto, force not much matterfrom a superated Aposteme, leave that worke to nature onely, hinder not the due course thereof by the foolish vse of flopping the orifice with a tent, for fo thou shalt become an enemy to thy Patient, and not onely hinder his naturall helpe farre aboue thy Artificiall helpe, but allo vncharitably thou wilt choke him vp in his owne excrements, which beware of. And for the furthering the fall of an E/ker in any Apolleme, where nature hath a breathing, it is meere folly, as I haue. faid in other places. The longer it lyeth on, the better I like the worke, and if you would vie all the Art you can, you

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

I have much (in my good will) to write of this fubiect, namely of the manner of preparation, keeping, & fundry forts of application of the fame Caufficke, and divers other necellary infiructions of the feuerall vies of the fame medicine in divers parts of Chirurgery, as well as in the opening of Tumpurs, but my time calleth me to the next. Wherefore at this time I craue pardon. Las , stug add to

by the good edour and warmth thereof.

Salt Abfinthy, & Gemme, & Nitri.

X 7 Hat my leifure hath not here permitted mee to speake of them or any Salt elle, I have rehearfed them in my Treatile generall of Sale in their particular places, to which I referre the friendly Reader. The Index will guide him thereto. Bahne for finowes wounded.

Oleum Rofarum

R Oyle of Rofes, is anodine, and doth refrigerate and corroborate, and therefore is good against hot difeafes, as Erifiphilas. Allo with Mel Refarum it is a good Balme for new wounds of the head, and elfe where; and hath divers other worthy vies in Chinargery.

Oleum Anetheninum.

The of Dill is anodine and laxative, it concocteth crudetumors, caufeth fleepe, mitigateth the headach, refresheth the wearied members, strengthneth the sinewes, difcuffeth winde, profitable for convultions, and affwageth aches, eafeth paines, and hath many other good chrous Melancholie : and it is ofvery good victor caply

good to our new wounds.

bladder.

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Olenm Chamamelinum.

Yle of Chamemill refolueth moderately and calefieth, is good for the collicke, ftone, wearinetfe, by annointing the parts greeued, and for aches, and feuers in all other things other with the former. It is alfo very convenient in Glifters for all gripings and tortions of the gutts, and yeeldeth great comfort to the intrailes by the good odour and warmth thereof.

Oleum Lumbricorum.

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

Oleum Lilliorum.

Yle of Lillies doth moderately warme & refolue, affwageth paine, mollifieth hard tumors, doth much mitigate the violence of difeafes, and is very effectuall against paines of the breast and stomacke, and allayeth the inordinate heate of the reynes and bladder.

Oleum Hipericonis simplex.

Yle of St Johns worte fimple is of a thin effence: it is of temperament dry and anodine, healing finewes pricked or wounded. Alfo it is very profitable to them that haue the Sciatica to annoint them againft the fwellings in the Temples, Belly, and leggs throug Melancholie: and it is of very good vse for cold aches and convultions, cramps, burnings, scaldings, and good to cure new wounds.

Oleum Hipericonis composita. Oleum Aparici, Or Balme Artificiall.

These three several names of oyles, or different medicines, according to that I intend in the Surgions Cheft, is but one and the same medicine. A better Balme then which to heale new wounds the Surgions Mate need not defire to learne nor know. Some Writers call it by the name of Olenm Hipericonis cum gummis: some Olenm. Aperici: some Balme Artificial. The composition whereof with the reft 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 fure medicine for all venemous wounds, all bitings of madde dogges, or of venemous wormes, very hor applied, and the parts about annointed therewith warme, remembring in all venemous griefes a Cordiall is also requisite. In my owne practife it is almost all the vnctious medicine I euer vle for the curing of wounds and contulions, and I neuer repented my felfe of the vlethereof. In piercing wounds and stabbs it is a medicine a Surgion may well rely on, it will not difgrace him. It is a very comfortable medicine against all paines, aches, and witherings of the outward limmes proceeding of cold caufes, vling it warme with good frication, and a plaster of Burgundy pitch spread on lether and applied thereon, or rather Empla: Stipticum Paracelfi.

I fpeake this of practife, and I could fay much more of my owne experience touching the worthy praife of this medicine if time would ferue: but for this time accept of this abridgment.

intraviolence real state field

Olenm

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Oleum Sambucinum,

Yle of Elder flowers doth lenifie and purge the skin, is good for the obftructions of the Liuer, helpfull for the ioynts and nerues pained, the parts greeued being annointed therewith : it procureth flooles by Glifters vied, healeth the yellow laundice, amendeth belly ach, and ealeth the griping paines thereof.

Yle of Linfeed is anodine, cureth convultions, mitigateth the hardnes of the arteries, muscles, & nerues, alfwageth the paine of the Hemorrhoides : and helpeth the vnnaturall clefts, chaps, and fiffures of the fundament,

chennel of Olemn Lini. Man of one of the

the parts about annointed therewith warme, remembring

Vie of Eggs clenfeth the skin, taketh away the fil-Othineffe, and all skars thereof occasioned by cutts, or bitings, or at the least much diminisheth them, fo that they can be hardly seene: it cureth burnings, killeth Ringwormes, healeth excoriations, and is preualent against any vicer, chops, or ill matter arising out of the flesh, either in the hands, seete, armes, legs, or in any other part of the body.

Oleum Laurinum.

d fay minch more.

O Yle of Bayesis a medicine calefying, mollifying, opening and discussing, it doth much mitigate the Collicke delivered into the body by glister, it is a present remedy against colde greefes of the braine, nerues, arteries and loynes, the parts annoynted therewith, it represfeth the violence of a feuer, the fina dorfs or region of the backe

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backe bone annoynted therewith, and is good for the Pallie, Sciatica, the hardnelle and paines of the spleene, and is much vied for to cure the fcab, and ring-worme, and in the cure of the Scuruy.

Oleum Abfinthy.

Yle of wormewood doth calefie and corroborate, especially the stomacke, raifeth an appetite, conco-Aeth crude humours, diffipateth and dilperfeth winde, killeth wormes, and taketh away obstructions proceeding from a colde caufe, the parts greeued being annoynted therewith, and likewifeit is good in glifters for the like occalions.

Olenm Papauerum.

Yle of Poppies cureth the intemperature of heatin the reines and feuers, and procureth fleepe being annoynted on the nole, temples or eares, maketh lubricke, and lenefieth the fharpe arterie.

Oleum Petreoli.

Yle of Peter is hot and dry, and by the tenuity of the effence thereof doth penetrate and digest all excrementall matter, it is vied with profit for the falling licknes, palfie, giddinetle of the head, and is good for many other greefes ariling from cold caufes.

Oleum Scorpionum.

Yle of Scorpions is of speciall vieto breake the flone in the reines and bladder, and Manardus commendeth it both in the peffilence, all contagion, & feuors, but cheefely in expelling poyfon. And it is also good to affwage the paines of the backe proceeding by diffempered kidneyes, Oleum

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Olenm Amigdalarum dulcinm.

O Yle of fweet Almonds doth lenifie the roughnelle O of the breft and throat, as alfo the hardnelle & drines of the ioints, is good against the confumption of the lungs, it is alfo of good vseto bee drunke in the hecticke feuers : it flayeth the cough, alfwageth the heat of vrine, healeth vlcers by iniection : is very good in *Colica* or *Iliaca Paffie* to be drunke, and to be administred in glifters.

Oleum Amigdalarum amararum.

Offcutteth winde and vapours : but cheefly it healeth deafnette, the hifting and paine of the eares, lenifieth the hardnette of the finewes : and maketh the face and hands faire. &c.

Balfamum Naturale.

Maturall Balfamum, or Opobalfamum is very good for them that are flort winded, for the obfiructions of the liver, and for greefes of the flomacke, helpeth the confumption of the lungs : and caufeth an appetite, and befides the excellent vertue fanatiue it hath, both inwardly and outwardly in the cure of wounds, It hath alfo many other good vertues.

Oleum Vitrioli.

O'Yle of *Vitriole* is exceeding hot and colde, mixed in Owaters, decoctions, firupes or conferues, maketh them in tafte tart or fowerith, and in colour purple like, delighting them that are ficke of feauers, freeth obftructions, recreateth the bowels : and is very effectuall in the peftilence, falling ficknets palfie and ftopping of vrine, See more heereof in the Treatile of Salt.

Olenm

Oleum Sulphuris per Campanam.

O'Yle of Sulphur made from the humid vapors therof, o is good to make the teeth white, to take away the morphew, cureth venereall vlcers, expelleth difeafes arifing from winde or colde, is good against the falling ficknelle, shortnetse of breath, cuill affections of the lungs, and eafeth the tooth-ach, and is, being well prepared, a true cordiall medicine.

Oleum Garyophillorum.

O'Yle of Cloues not vnlike to Opobalfamum in strength doth sweeten the breath, driueth away putrede humours, discussed winde, openeth the pores of the liver, 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.

O'Yle 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.

O'Yle of Philosophers, or of tile-stones or bricke-bats, the eldest is the best, very like it is to Oleum Petreolei in vertue it doth extenuate and penetrate vpward, digesteth and confumeth all excremental matter : and is profitable for colde affections of the spleene, reines, bladder, nerues, wombe and ioynts, for the Lethargie, Apoplexie and falling sicknesse, and many other the like greefes.

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Olenma

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Oleum Anife.

O'Yle of Anis-feedes preuaileth against the collicke arifing from winde and colde, against the Tympanie, Inflation and crudity of the stomacke, against the gripings and the crying of the intestines, &c.

Oleum Terebinthine.

O'Yle of Terbentine is taken inwardly for fhortneffe of breath, the tyficke, against the stone, the collicke colde and windy affections of the bress it is outwardly vsed for to heale since wounded, or troubled with any intemperature, also to fill vsers with fless, and knit them vp leauing no siccatrize in them.

Oleum Inniperinum:

O Yle of Iuniper is commended for the cure of the morphew of the skin, it prouoketh vrine, it agreeth with the cure of difeafes of the reines, it is good to bee taken certaine drops thereof against any pestilentiall vapours, for the store, it is also good, and to be drunke certaine drops, against penetrating wounds.

Oleum Spice.

O'Yle 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 benummed, also it is good against the falling sicknesse and convulsions, the temples and nape of the necke, yea, and the whole head to be annoynted therewith is very profitable,

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Oleum Antimony.

OYle of Antimonie or Stibium is good for them that have convultions, or any aftonishing difease, and other cuill affections of the braine, foure graines thereof drunke, it alfwageth the paine of the gowt and collicke, cureth feauers, helpeth the bladder vlcerated, and wonderfully helpeth the canker, Fisula phagedena, thefretting or eating pockes, the wolfe, and all other forts of vlcers.

Oleum Succini.

O'Yle of Amber helpeth the paine in the head, refolution of the finewes and falling euill, one drop or two taken with water of Betony or Lauender, or in faire water, it preferueth alfo from poyfon, and mixed with parfly water or malmelie, is a fingular remedy in difcuffing difeafes of the reines and bladder, bringing foorth the ftone, and opening the paffages of vrine, it profitteth in the collicke & ftrangullion. A drop put into a little verbene water, and fo giuen to a woman in trauell, it refresheth all the weake faculties of the body, confumeth humours, confirmeth and openeth the braine.

Oleum Absinthig Symice.

Offengthen it, to ftay vomitting, to killworms, alfwageth the paine of the teeth, and is vied in agues.

Olenm Origani.

O'Yle of Origanum cureth melancholly, helpeth the dropsie, and cureth the cough, and quarterne feuer, and the tooth-ach.

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Sirnpus

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Syrupus Absinthiy.

Strupe of wormewood is fayd to corroborate the flo-Smacke, helpe concoction, caufe an appetite, difcuffe wind, open the veines, and to moue vrine, kill worms. &c-

Sirupus Limonum.

Sirupe of Lemmons is cordiall and refrigerating, and I Smay fay calefying too, it doth pleafe and profit the appetite, and comforteth all that areficke of the peftilence, continuall and contagious feuors, as alfo all difeafes, on which exceeding great heat attendeth, cheereth vp the heauie heart, and difpelleth forrow there from, and against all obstructions of the spleene it is a good helpe, and also well approoued good in the cure of the Scuruy.

Sirnpus Paupaneris,

Slrupe of white poppies hath an affringent quality, it Sprocureth fleepe, helpeth the cough, hindereth the humours which diftill from the head into the throat tickling, and is of precious vse against the palsie, if it beevied in the beginning thereof.

Sirapus Cynamomi.

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

Syrupus

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Syrupus Rofarum Simplex.

Slrupe of Rofes fimple doth quench thirst, especially in Sfeuers, mittigateth their heate, refrigerateth the stomake, and liver being very hot.

Syrupus Rofarum folutinarum.

Shoth to old and young when they are molested either with burning or pestilent feuers, or any hot distemperature in their body.

Syrupus violarum.

Strupe of violets doth breake the acrimonie of melan-Scholie, tempereth the heate of the bowels, bringeth downe the belly by purging it, helpeth the difeafes of the throte, as hoarfenefie, and the drie cough, and is a chiefe aide to the curing inflammations of the breft, against the plurifie, and quencheth thirst in feuers, and is cordiall.

Oximell Simplex.

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

Mell Rofarum.

OR Hony of Rofes strengtheneth and clenfeth the strengtheneth clammie humors, helpeth concoction with the temperate heate thereof, alaieth and stoppeth hot fluxes, the Phlegmon of the mouth, gums, and

and iawes, is fingular good with oile of Rofes for wounds in the head, and thefe two with aqua vite arevery good to cure wounds in joints where the joint water gleteeth out.

Diamoron fimplex.

OR Diamoron fimplex not vnlike Mell rofarum is profitable in Gargarifmes, against the eating vlcers of the mouth as aforefaid, and cutteth away fleme, and clenfeth the mouth and throte, and by reason of the pleasing taste thereof is the more comfortable to the difeased.

Syrupus Raphani siluestris.

R Sirupe of wild Redifh breaketh the ftone, mundifieth the reines, prouoketh vrine, is profitable for the kings-euill, and is an approued medicine in the Scuruie to be drunke daily.

Syrupus Prunellorum.

R Sirupe of Sloes doth refrigerate and comfort the ftomake, ftoppeth fluxes, healeth the excoriations of the intralls, the doffe may be 3 ij at once.

Conf: Rofarum Rubrarum.

OR Conferue of Red-rofes is good for the heart and head firengthning and comforting both, as alfo the bowells mittigating their heate, and ftoppeth fluxions, and is much the more profitable in any griefe if a few drops of oile of vitrioll be mixed therewith, but beware of too much.

Senfer:

Confer: Anthos.

OR Conferue of Anthos, or Rosemary flowers is of much vse in philicke, because of the force it hathin comforting the braine and corroborating the sinewes, and it is given with good successes for the falling sickness, Apoplexie, 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 afiringent, it quencheth thirft, and the heate of the flomake, and bowells, it caufeth appetite, remooueth the waterifh humor of choller, cureth the bloudy flix, the flux of the liuer, the often gnawing and wringing of the guts caufed by choller, healeth the fmall pox, and refifteth drunkennetfe.

Rob. Citomorums.

OR Conferue of Quinces doth binde, comfort the ftomake, is good for choller, ftoppeth all kinde of blou. dy fluxes, and helpeth digeftion.

Confer: Luiule.

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

M Confers

Confer: Prunellorum.

OR Conferue of Sloes is of a comforting flipticke offorce, very profitable to comfort a weake flomake oppreffed with crudities, good against all fluxes of the belly, and alfo good to heale all inflammations or excoriations occasioned by the fame, either taken on a knife in forme of a *Bolum*, or giuen in glifters.

Electuarium Diacatholicon.

This Electuarie Diacatholicon doth purge gently all humors, it is conveniently vied in feuers, and other difeafes which arife from a certaine euill disposition of the spleene and liver, the dose is z_j .

Electuarium Diaphenicon.

Diaphenicon purgeth eafily, and fafely flegme and melancholly: it helpeth the belly ake, colicke, continuall burning feuers, and all euills proceeding of choller and flegme : the dofe is 3 j.

Diaprunum fimplex.

Diaprunum fimplex is commended for a gentle laxa-Diue, not only against continual and hot intermitting feuers, but also against all hot diseases, and against the vices of the lungs, throte, reines, and bladder, the dose is 3 j.

Confectio Hamech.

Confectio Hamech purgeth choller, melancholly, and falt phlegme, and is therefore with great benefit vied against difeases arising from the same, the Canker, Leprofie, or drie Scurfe, Madnesse, Ringworme, Manginesse, fcabs Of the Medianes, and their vses. scabbes and the like : the dose is Z vj.

Electuarium de succo Rosarum.

THe Electuarie of the juice of Roles is powerfull in purging of yellow choller : the dole is 3j.

Diatrion Pipercon.

Diatrion Pipercon doth help the flomake, and is good for fower belching, quartans, cold, and all flatious difeafes, or wounds: of the fpecies thereof you may R 3 j, of hony 3 v: put them together being well mixed, and keepe the fame to give vpon occasion to a weake flomake fafting, or at any time. It will warme and comfort him much: when menfeele their flomackes oppretfed with abflructions by reason of cold, now and then a little thereof given them will much comfort them, and preferve them well from fluxes of the belly.

Theriace Londini.

"His composition was heretofore appointed by the wifedome of the learned and graue Doctors of the Philitions Colledge in London, as a thing very requilite, for that the price fould be reasonable for the poorer fort, the ingrediences thereof being neuer the leffe Cordiall, and yet fuch as are in London at all times to be had, it may be vied well in place of mithridate, and in truth I had rather put my felfe vpon it as a good Cordiall, being fresh made, then vpon the mithridate we buy from beyond the feas, for it is by the Hollanders fo vncharitably sophisticated that a man may feare to take it in his neede:my felfe chanced in Holland into the house of a Bore, as they tearme him, to lodge, who lived by making Mithridate and Treakell, and confelled to mee his Mithridatehad but nine fimples in it, and he had pewter boxes marked fo arti-M 2 ficially

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odi vol-bo

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

I have appointed to the Surgeons cheft fome of the Species of the London treakell ready poudered, and dry, that the diligent Surgeon at his will may compose a London Treakell at fea, namely, by taking hony 3 iij, and of this pouder 3 j, and heate them together, flirring them well till all be incorporated, and give it as neede fhall require.

Confectio Alkermis.

Onfectio Alkermes preferueth from Apoplexies ariting from cold, and melancholly humors, doth very much comfort the braine, and heart, and is fometimes vfed very profitably for them that languilh away through long fickneffe, and are fubiect to fwoundings.

medi ou olor ba Electuarium de ono.

calon of colds now and then a little thereof

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

Methridatum Damocratis.

MEthridate of Damocrates is in quallity and vertue liketo Treakell, but more hotter and forcible againft the poifon of Serpents, madde Dogs, wilde Beafts, creeping things, being vied as a plafter, or drunke, it curethall the cold affections of the head, helpeth the melancholick or those that are fearefull of waters, them also that have the falling ficknets, Megram, paine in the bowels, eares, tooth ach, and weeping eies, healeth the euills of the mouth and iawes, being plafterwise laide to the temples by discuffion giueth ease to the troubled with the Squincy, A poplexie, cough, spitting of bloud, Impostumes, or infiammations of the lungs, or any griefes within the body,

and

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and is good against the bloudy flixe, fluxe of the storake, obstruction of the guts, and against ringing & tortions in them, being taken with aqua vite and the decoction of baulastians, it remedieth consultions and palsie, helpeth the middriffe flatus, Hipocondria, the paines of the reines, & bladder, breaketh the store, prouoketh vrine and monthly flowers, expelleth other vices of the matrix, yeeldeth a singular benefit for the Goute, profiteth not a little in quotidians, and quartanes, a quantity drunke in wine, being first warmed, and then taken an houre before the fit.

Theriacha Andromachi.

A Ndromachus Treakell doth the effects of Mithridatum Damocratis, and is also good against the hoarscnetse of the voice, against the laundice, Dropsie, for wounds of the intestines, to bring foorth the young birth dead: to expell and take away the Leprose, and measils, to reviue 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 Diatefferon Mesuis:

This Diatefferon is an ancient Empolition deuifed 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 so the Greeke word so named, for that it is made of foure so the Greeke word so named, for that it is made of foure so the Greeke word so named, for that it is made of four so the Greeke word so named, for that it is made of four so the Greeke word so named, for that it is made of four so the Greeke word so named, for that it is made of four so the Greeke word so named, for that it is made of four so the Greeke word so named. So that it is made of four so the Greeke word so named, for that I would have it kept in time of neede, I have thought meete to have ready powdred the faid 4 simples together to be composed into a Trekell, as occasion shall move the. Only note this, that to one ounce of the faid so the faid for the hony is to be added, and on the fire well mixed, and so it is M 3 ready

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

The vertues of Diatefferon are faid to be as followeth. It is good against poyfon drunken, and against the bitings of venemous beasts or wormes. It is also good against all the cold effects of the braine, as convulsions, refolutions of the finowes, morbum Comitialem, the Spasse 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 liver and spleene, thereby preferueth the body from the difease called Cachexia or stomacace, which is the Scuruy. Teste Tharmacopaia Angustana, & aligs.

Dentes Elephantini.

DEns Elephantinus, or Elephants tooth hath an astrin-Dgent force: healeth fellons; and is good for white suxes of women: the Isteritia Flava, or the yellow Iaundife, Morbus Regius, wormes, and continual obstructions.

Laudanum Paracelsi Opiatum.

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

Diascordium.

Defilentiall: good for the head-ach, and vniuerfall plague, whofe dofe is from halfe a dragmeto one dragme and a halfe, according to the occasion or strength of the Patient.

Diacodion.

Diacodion.

Dine head to the breast, helpeth the cough, and procureth rest. the dose is from 3 j. to 3 j.

Philonium Romanum.

Philonium Rom: Magnum is given for the Pleurifie, Collicke, and any internall paine or greefe: it caufeth fleepe: flayeth Hemoragia or the flux of bloud in the inward parts and fneefing: allayeth the greefes of the belly, fpleene, liver, and reynes caufed by cold, winde, and crude humours: and taketh away the hicket: the quantitie of \Im j. is the vfuall dofe, and it is augmented or decreafed as the yeares and ftrength of the Patient is.

Philonium Perficum.

Philonium Perficum is invented against the abundance of bloud, 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 bloud : it doth also consolidate vicers and veynes.

Philonium Tarfense.

Philonium Tarsense is of the same facultie as Philonium Romanum.

Anrea Alexandrina.

A Drea Alexandrina is effectuall against the cold defluxions of the head: good for weeping eyes, the tooth ach, and head-ach, confumption, collicke, cough, and spitting of bloud: and profiteth the paine in the reynes, and

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and intermitting feuers. But the caufe why I haue not appointed this good composition, nor any of the three last mentioned *Philonums* 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 paracels* is sufficient for ought the other can doe. Wherefore I rest fatisfied therewith.

Succus Absynchig.

Stion: killeth the wormes: benefiteth the flomacke: and differeth much from the vertues of the hearbe, this being aftringent, the other absterfiue,

Succus Acatie.

A DI MILLE A DINA TO AL

Sthe invce of Slowes: it doth refrigerate, binde, and repell: it flayeth all fluxes of the belly, healeth excoriations of the intralls, flrengthneth much the flomacke: helpeth appetite, healeth vicerations in the intralls, either vied in Gliffers, or eaten in a Gelly. The dofe whereof may fafely be 3 j. at one time, or 2 3 cannot offend: but I hold the infufion thereof, or the decoction of it to bee the aptelt medicine, because of the grotines of the fubflance thereof.

Succus Glycyrrhizza.

Stiesis temperate, but exceeding in heate: formewhat it doth lenifie the throat, & mitigate the afperities of the arteries: clenfeth the bladder: and is good for the cough: moueth expectoration, and is very profitable against all wices of the lungs and throat.

of blood : and profited the paine in there years

Succha

SHECHS Limonum.

Succus Limonum, or inyce of Limons expelling and refrigerating, cleateth the skin of morphew, killeth handwormes; and is of speciall vie to bridle the heate of melancholie: to helpe sharpe and contagious feuers: is good to cause a pleasant taste in potions &c. and cordialls. It being very cordiall of it felfe, and the most pretious helpe that euer was discourred against the Scurwy to bee drunke at all times; for it mightily openeth all obstructions, and refresheth and reftoreth nature.

Pulpa Tamarindorum.

P^{Ulpa Tamarindorum}, the pulpe or iuice of Tamarinds is a medicament excellent and well approved againft the Scurny, as well for opening the obftructions of the liver 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 liver: stoppeth vomiting, and is good for the Collick.

Pilule Aggregatine.

P llula Aggregatine, lo called either from the Agaricams or the aggregation of many vertues that are faid to betherin: for they are profitable for many affections of the head, flomacke, and liver: they purge phleame, choler, and melancholy; and therefore are of very good vfe against continuall feuers, and inveterate difeases, and are described by Messes, whose dose is from two scruples to a dragme and a halte. But beware of the vse of these pills, where the flux raigneth; for Agaricam in such bo-N dies

dies as are incident thereto is a dangerous medicine. If fpeake this of practife, wherefore remember it.

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Pilula Aurea

Pllale anree, or the golden pill, being in colour like anrum or golde, becaufe of the faffron in him, they are cholagogall, attracting choller, yea, and flegme too, from the inferiour and fuperiour venter : and therefore purgeth the head, fenfes and eyes, & reftoreth the eye-fight : they were first made knowen by Nicbolaus Myrepfus, who was the first Authour of them; their dose is like that of the pils Aggregative.

Pilula Cochia.

Pllula Cochia deriving the name from a Greeke word *konnos*, a graine (pils being formed fmall and round like graines of Cicers) doth purge both choller and fleame from the head, the liver, and from all other parts, wherein fuch humours are contained, and are found defcribed, first by D^r. *Rhafis*, who is their fupposed Authour. The dose is divers, as before, fometimes great, fomtimes fmall, but 3-j. is the ordinary dose.

Pilula de Euphorbio.

Plule de Emphorbio, pils of Euphorbium, receiuing Mesues for their Patron, are vertuous against the dropsie and Scuruy, for they calefie the stomacke and entrailes, purge water abundantly, preuaile also in remoouing 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 for uple, or halfe a dragme, and may be mixed with Pilule Cochie.

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if educion.

Trochiscin de Albandall.

TRrochifci Colocynthidos, or Alhandall, as the Arabians fpeake, doe bring away thicke fleame, and all glutinous inices from the braine, nerues, and other more remore parts, they helpe the chollicke proceeding from a glassie tough fleame, the Apoplexie, Squinancie, falling ficknesse, thort breathing, colde and goutie difeases, which fcarce giue way to common medicaments, and is defcribed by Me/mes, the dose is grana 4.

Trochifci de Spodio.

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

Trochifci de Minio.

TRochifci deminio, or the Trochis of minium, confume proud fielh, mundifieth fordid vlcers, mundifie callous or hard fielh, aud wonderfully cure fiftulaes: looke more thereof in Iobannis de vigo.

> uty jout of times place or vnorepared, it is very da v excoriating the guts, prousers and allo and verteenen

and dry units a foueraigne medicine for the formake.

F Olia fene are hot and drie in nature, they are an excellent medicament purging the belly; it foureth away flegmaticke, tough, and melancholly humors, from the braine, lungs, spleene, liuer, flomacke, and bowels, as also clenfeth the body from adult and falt humors,

s, remonencold, Begnineit

Elevenod all

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 liver, and against the bloudy flixe, purgeth downward chollericke humors, and therefore very profitably vsed against hot feuers, inflammations, and stoppings of the liver &c. 3- j is the full dosse.

Agaricum.

A Garicum or Agaricke is hot in the first degree, and drie in the fecond, purgeth phleame, freeth from obstructions, attenuateth, clenfeth, & diffipateth winde, and helpeth all difeases which spring from grots, cold, and raw humors: the dose is $\frac{3}{2}$. But beware of the vse therof in the curing any fluxes of the belly.

Scammoninm.

Scammonium is hot and drie in the fecond degree, purgeth downeward in vehement manner chollerick humors, and therefore is good against diseafes 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 bloudy excrements, procuring Discenteria, causing winde, offending the stomake, and distempering the heart and liver : the dose is eight graines.

olices estowed bas Aloes cicotrine.

A Loes the beft is hot in the fecond, and drie in the third degree, remouch cold, flegmaticke, and chollericke humors by purging, digefting, and dryuing them out, it is a foueraigne medicine for the flomake.

Hermodactili.

A caution.

Hermodactili.

Hermodalili are hot, and drie in the fecond degree, they do effectually drawe away phleame, and other flimie humors from the articles, and therefore are very profitable for the Goute in the hands, and feete, and the Sciatica.

Polypodium.

Phody, and bringeth away blacke choller, and phleme, helpeth the chollicke, and the griping of the belly, and also the obstructions of the spleene.

Corns cerni.

H Artshorne is to be numbred among Cordiall fimples in the higheft place, it is given in want of Vnicornes horne and not vnfitly, it comforteth the heart, is good against poyfon, prouoketh vrine, openeth obstructions, easeth the chollicke, disperse the 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 inforce : Thus much is ment of Harts horne vnburned. And being burned the pouder thereof is very good against the bloudy, or any other fluxes of the belly.

Euphorbium.

E Vphorbium 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.

. Turbith

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Turbith Cathapfaris.

Vrpetum is hot in the third degree, is good to purge phleame, chollericke and thicke humors from the ftomake, breaft, joints, and other remote parts, and helpcth the chollicke, and cold aches.

Mirabolanes.

A Irabolani (whereof there are five kindes, the Citrine, MIndian, Bellericke, Chebule, and Emblicke) haue peculiar vertues, fome purge choller, others melanchollie, others phleame, but as they purge fo they bindeagaine, comforting and ftrengthning the heart, ftomake, and liver, and therefore are fit purgers of the body in diffenterie vpon any occasion, there dole is 3 ij.

Cambodigie, or Guttigambe.

Ambodigie 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 vie by diuers reuerend Philitions, amongst which Doctor Haruy vleth it in Saint Bartholomews Hospitall, and calleth it Crocus purgans. I finde by my practife it purgeth well the head, and that it is good to open obfructions, and that it is good alfo against the yellow landice, and that it openeth well the ipleene, and liver, and purgeth more downwards then Stibium doth, the dofe is 12 graines : The recited Doctor giueth it in pills : my felfe, for that I fee it purgeth the head have mixed it with pills for the head, fo give it, and it worketh gently downward only.

Callia

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Cassia fistula.

Chifia fiftula is hot, and moift in the first degree, temperethimmoderate heate, purgeth gently chollericke humors, and is good for the reines, and kidnics, driving foorth gravell, and the stone.

Crocus.

Cin the first, is good for the braine, quickneth the fenfes, cheareth the heart, caufeth digestion, helpeth the difeases of the brest, lungs, and liver, it mollifieth all hardness, and ripeneth all tumors.

Opinm.

Pium is colde and drie in the fourth degree, affwageth inward paines, caufeth fleepe, ftoppeth the flike : and defireth care in his vscthereof, for otherwife it is a deadly poyfon.

Radix Chyna.

R Adix Chyna, Chyne-roots preuaile much in the cure of Lues venerea, and are good for the giddinetfe of the head, taketh away the paine of the ftomake, & obstructions, and are profitable for the dropsie, chollike, and gripings of the belly, moueth vrine, causeth sweat, and are helpfull against consultions, the palsie and paines of the ioints, and a singular remedie against a consumption.

Sarfaparilla.

Sextinguisheth the heat of venereous poyson, and is O good

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

Salfafras is of a hot and drietemperament in the fecond degree, commended in taking away obltructions, corroborating the inward parts, helping the Althmatique, and Nephretike, clenfing thereines from grauell, difcuffing winde, good for womens difeafes, and against any kinde of fluxion, and the Morbus Gallicus, or French pox it is a good medicine.

Gnaicum.

Ignum Gnaicum doth exiccate, attenuate, open, purge, moue lweate, relifteth contagion, and infection, and doth wonderfully cure the morbus Gallicus, olde vlcers, fcabs, and ring-wormes, the best vlethereof is by decoctioninfaire water.

Cortex Gnainci. Og gunnob section

Ortex gnaiaci hath the fame vertue as the Lignum. Gniacum hath.

Cortex Granatorum.

Cortex granatorum, feu Malicorium is altringent, ftop-Opeththe laske, and bloudy flixe, healeth the gums moilt, and weake, fasteneth the teeth loofe, ftoppeth the bleeding of greene wounds, and helpeth the corruption of the ftomake, bowels, and the burfting or falling downe of the guts.

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the obfleuchtone of mill, miting hier, and kidnice, and can

Liquiritist in all qualities temperate, yet enclining more to heate, it is agreeable to the lungs, and breaft; rotteth phleame, moueth expectoration, cureth the cough, helpeth breathing, and is profitable for the reines, taking away the fharpenetife of vrine, diffolueth the flone, and healeth the fores of the kidnies and bladder.

celt in sich has some Hordenm.

Hand drie in the first degree, digesteth, fosteneth, and ripeneth all hard swellings, is good for inflammations, excelleth against the soarenetse of the throate, refrigerateth, comforteth, strengthneth, is abstersed, and prouoketh vrine,

Hordeum Gallicum.

Hordeum Gallieum more vied inwardly then the Herdeum comune by the Philitions in medicaments, is of the fame nature and vertue as the other is.

senst congob fhil och al rociona enhod onici rola a sensi f

Semen anif Anife feede is hotte and drie in the third degree, doth difcuffe the windine fe of the ftomake, and bowels : ftoppeth the bloudy flixe, laske of the belly, moueth vrine, and monthly tearmes, breaketh and bringeth away the ftone, helpeth obftructions of the liver, amendeth the breath, and is good for the falling fickneffe.

-fond ode chodinal Semen feniculi. storio di asocio bas

SEmen fenienli or fennill seede is hot in the third degree, drie in the first, corroborateth the stomake, openeth the

the obstructions of the lungs, liver, and kidnies, and caufeth abundance of milke in womens breasts.

Semen cars.

Semen cari Caraway seede is of the same nature, and Svertue as Semen anisiaforesaid.

Semen cumini.

Semen cumini Cummen feede is hot, and drie in the Sthird degree, attenuateth, digesteth, resolueth, discuffeth winde, dissipateth phlegmatike tumours, and is good against the chollicke and timpanie.

Semen petrosclini.

Semen petroselini or Parsly seede is hot in the second degree, and drie in the third, is given to them that have the stone, or Iaundise, as also to prouoke vrine.

Semenlini.

Semen lini or Line feedes are hot in the first degree, temperate in moisture and driness, for the all cold tumors, ripeneth, breaketh impostumes, draweth out thornes sticking in the body, expelleth winde, and gripings of the belly, and clenseth the stellar from spots.

Semen fenigraci:

Semen fenigraci or Fenigrece is hot in the fecond, and drie in the third degree, doth mollifie, difcuile, and mundifie: helpeth cold, hard fwellings, impoltumes, and Goute in the feete : walteth, and lenifieth the hardneise of the melt: mittigateth heate: is profitable for the matrix in women, and clenfeth the skinne from many euills, as itch, fcurfe, pimples, wheales, and the like.

Semen

5 101 10C

Semen Anethi.

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

Semen papaueris albi.

Semen papaveris albi, or white poppy feedes are cold and dry in the fourth degree, prouoketh fleepe, taketh away fubtill humors, catharres, rheumes diffilling from the braines vpon the lungs : and helpeth the cough.

Semen Plantaginis.

S Emen Plantaginis, Plantane feeds are cold and dry in the fecond degree, ftoppeth the flux of the belly, and any flux of bloud: and is good for Catarrhes, old and new vlcers either of the body or mouth.

Biombanon Semina 4. frigida Maiora.

The foure cold feedes, named Semina 4 frigida maiora (videlicet Cucurbita, Cucumeris, Citrulli, Melonis) are cold and moift in the fecond degree. The first whereof extinguisheth the feruor or heate of bloud, 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.

SEmina quatuor frigida minora, or the foure feeds, cold S(to wit, Lactuca, Portaluca. Cichory, Endinia) the first O 3 whereof

er of afeingelate qualities and by

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

Saccharum.

Sugar is hot in the first degree, loofeth the belly: is convenient to the stomacke, doth clense, digest, take away the asperitie, or ronghnesse of the tongue, and ficcitie, thirst, or drought in feuers: helpeth the reynes, & bladder; and is profitable for eyes dim of sight.

sufficiences difficientes

dauos sels disci al Amigdale amare.

A Migdala amara, bitter Almonds are hot in the first degree, dry in the second, they are abstersive more then sweet ones: they doe open and purge the lungs, liver, spieene, kidneis, vrinall pallages, reynes, & bowels; and are good against spitting of bloud.

Amigdala dulces.

A Migdale dulces, or fweet Almonds, are hot and moift in the first degree, doe extenuate, purge, and clense 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 bloud, and ingender choller.

Une passa. Vue passa. Superior of a contrans, are hot in the first degree, or rather of a temperate qualitie : and by a special facultie they have, they preuaile against the vices of the breass, and liver : move, and purge the belly : firengthen the stomacke : purge the head : lenifie and clense the breass and lungs.

Amylums

Amylum.

Mylum, or white farch is moderately hot : Teviga-Ateth the parts exasperated : it is effectuall against the defluxions of humors into the eyes : against puffles and hollow vlcers: it filleth with fielh : ftoppeth fpitting of blood : helpeth the roughnes, and forenes of the break, and throat : and eafeth the cough. and is very good in the fluxes of the belly to be given in glifters againft inflammations and excoriations in the intralls. D.r. Malchata, or Neuroga are of the lorne cor mile-

Cinnamomum. indinelle or the

Innamomum, or Cinnamon is hot in the fecond 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. Justiber, or Ginger is hor in the third degree : helpein

macke: breaketh winde : and preuchteth fowire crucha-A Acis, or Mace is hot and dry in the fecond degree: IV ftrengthneth the ftomacke: helpeth concoction : discuffeth winde : and comforteth the heart. "Frami Gualei, the gumme of the Garoun hutines

Aconcochion : fren aban a cold and weake flo-

and drunke h Plper nigrum, or blacke pepper is hot and dry in the third degree: expelleth winde : is good against all cold griefes of the breaft, and lungs : against poyfon, agues, and squinancie: diffolueth, and wasteth hard tumors : cauleth digeftion : and aromatizeth meates.

y diffoloing, and of a frong friells it is

A lante virene as imurgin regi parke aforelaid, called

at, tender, or cilidqoina in molifie, digelt, attenuate, or all wage, dinipate; or difperfewinde, and is lazariue, .

Lignering Consichant

Cariopbilli.

Cariophilli, or Cloues are hot and dry in the fecond degree, and are Aromaticall, and beneficiall to the heart, and braine: helpeth the liuer, and flomacke: maketh the breath fweet: are good for digeftion: quickneth the fight: flirreth vp luft, and taketh away obftructions.

Emanded in Nux Muschata.

Nor Muschata, or Nutmegs are of the fame complexion as Macis: helpeth the stoppings of the liver, milte, stomacke, windinesse of the belly, laske, weaknesse of the kidnies, and stopping of the vrine: comforteth the heart, and aromatizeth.

tions and excontinons in and it

Sew onderfullinein areth volthe o

Of

Zinziber.

Inziber, or Ginger is hot in the third degree : helpeth concoction : ftrengthneth a cold and weake ftomacke : breaketh winde : and preuenteth fowre cructation.

Gummi Guaici.

Grammi Guaici, the gumme of the Guacum hath the Gfame virtue as the wood and barke aforefaid, called Lignum Guaicum, and drunke in powder is approoued a good remedy in Generrhea.

Opepenax. Did on to

Opponax, is a gumme hott in the third degree, and dry in the fecond (if bitter, white within or yellow, fat, tender, eafily diffoluing, and of a ftrong fmell, it is good) it doth mollifie, digeft, attenuate, or alfwage, diffipate, or difperfe winde, and is laxatiue.

and the birds ; takes away biles, third kernels ; and know

Bolliam doth warme and mollifie hard tumors in the Bthroat, and discusseth Herma's in their beginnings: prouoketh vrine, and is good against the cough.

Amoniacum.

Moniacum, a gumme fo called, it is hot in the third degree : hath the force of mollifying fo effectuall, that it diffolueth Tophoes or hard flones growne in the flefth : eatily difcuffeth other pufiles : healeth the fpleene hardned : and being giuen in drinke taketh away many obfructions : prouoketh the monethly courfes, and vrine : driueth out the flone : diffolueth the Kings cuill : is very profitable for aches from cold : that which is pure thereof is like Thus formed and in fmell, and in tafte like Cafforeum.

a construit pain and is agapenum, double a solution

Sagapennam, or Serapinnam is hot in the third degree, dry Sin the fecond, bringeth downe womens courfes : profitable against the fuffocation of the Matrix : resolueth, attenuateth, diffipateth, moueth, diffolueth, and purgeth (though flowly) thicke fleame, and clammie humors : it is effected excellent, if cleare, yellow in colour without, but white within : quicke in talte, light in fubstance, and cafie in diffoluing.

anog and ho support Galbanum. and of si tentechnich to

Albanam is hot in the fecond degree: is good if it be I full of drops pure like frankincenfe, fatt, not full of flicks, fltong in finell, neither moiftenor dry infubfiance: it extracteth, discusseth, bringeth away the courses flopt, P and

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

Myrrha.

Mittle drops, bitter, fharpe, which fmelleth fweete, full of whitifh veynes being broken, is hot and dry in the fecond degree : openeth the wombe : procureth the courfes : bringeth forth fpeedily the birth : good for the cough, flitch, fluxe, and bloudy flixe : killeth wormes : amendeth the breath : clofeth vp wounds : confirmeth the teeth loofe, and flayeth the haire fhedding.

Mastiche.

Mand very dry, brought from the Isle Chie, is hot in the fecond degree : helpeth concoction : shot in ting : confirmeth the power of reteyning fultenance, is abiterfiue : profitable alfo to them that spit bloud, or that are troubled with a cough : it attracteth fleame from the braine; and is good for the breath.

Ladanum.

Adamum is hot and dry in the fecond degree, doth calefie, and mollifie: open the pores of the veynes; keepeth the haire from falling of the head; ftoppeth the lafke; prouokes vrine: it is vfed feldom in the Surgeons Cheft, except in making a gratefull odour, as when a fume of Cinabrium is to be prepared, for the cure of the pox.

Styrax.

Styrax Calamita & liquidus are both hot in the fecond degree, doe mollifie, concoct, cure the cough, distillations,

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Tix.

lations, hoarfenes, pole or fluffing of the head, matrix flopped: are good to procure the monethly courfes of women, cordiall, exhilarating: oppolite to poyfon, and doe difcutle hard cold tumors, the knots of the finewes, and the flruma. The beft commeth from Ciprus, Sidon, and Pifidia: the Calamita Styrax is yellow, faft, rolen like, in gliftering fragments, perfeuering in fmell, though old, and being ditfolued of a hony-like colour, if commended,

Belzoin.

BElzoin, called vulgarly Beniamen, is hot in the Bfourth degree, comforteth the heart, and all the faculties thereof, and hath the fame power as Sigrax Calamiza aforefayd, the reddifh, cleere, full of white drops like frankincenfe, and of a fweet fmell as Xiloalees burned, is chosen.

Tragacanthum.

TRagacanthum, a temperate hot gumme is good for the cough, roughnetTeof the Artery or wind-pipe, hoarfnetTe and defluxions, being taken with honey, or with fugar, and is commended to be good for the eyes, alfo it is good to be fwallowed downe whole, or eaten in powder against the flixe.

Pix Burgundia, of some Pix Greca and Colophonia.

Colophonia or Pix Graca, is all one thing, and is a kind of Roline of the Pine tree, it is hot and drie, clenling and healing new wounds, mollifying hard tumours or fwellings, and is very profitable against aches of the limbs, proceeding of a colde cause. to prisite the monethly courtes of

inions hoardenes suit or in Euro of the head - mouris

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Plx Nawalis, or ftone-pitch is hot and drie in the fecond degreee, it difcuffeth, conglutinateth, mollifieth, maturateth, fuppleth the hardneffe of the matrix, and hard tumours, cureth vicers, filleth them that are hollow vp with good flefh, and helpeth cold aches.

Refina.

R Efine 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 feu succinum, is hot and dry, preualent against the white fluxe of the wombe, fluxe of bloud 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 intess, and is good to be call on coales to receive the fume thereof, to comfort the Arfegut fallen, as also tofume a stip or house in time of infectious aires, as the plague, or when generall fluxes are to be feared.

Cera Citrina.

Chracitrina, or yellow waxe, doth mollifie and heate, moyfineth temperately, it is good for to amend the milke in the nurfes breaks coagulated, it fwageth payne, healeth wounds and vlcers, and hath commonly a place in all good vnguents and plafters, it is a good medicine drunke or eaten, and fo fwallowed downe for to cure the exulcerations

exulcerations of the Romacke or intrailes in fluxes, where inward exulcerations are to be feared.

Mummia.

Mumia is aftringent, helpeth fluxes of bloud, the bladder vlcerated, and the inward diffempers of the yard : as alfo it prouoketh vrine, and is very good to bee drunke in powder against great contusions or coagulated bloud within the body.

Sperma Cati.

Sperma Ceti, or Spuma maris, or the spawne of the whale Sisfowre in talle, spungy and white in thew, vnfauoury in smell, and waighty, having a sharpe quality, it is of a colde faculty, clenfeth, and digesterh, and is sometimes vfed of women, to cleare the skinne from spots and morphew, and it is good also against bruises inwardly, taken with the former, namely, Mummia, and also outwardly warme, to annoynt the parts contuled therewith, and a Paracelfus emplaster, or of Pix Grecum put thereon.

Sanguis Draconia.

Sofan astringent quality, it closeth vp wounds, and confirmeth the weake parts, and stayeth the fluxes of outward wounds.

Lupines.

Vpines are hot and drie in the fecond degree, digeft, make fubtill and cleanfe, kill wormes, driue away the freckles and fpots like lentils in the face, alfwage impostumations and fwellings, the sciatica paine, digest, confume and ditfolue *Morbum Regimm*: Ripen and open wens, botches, biles and pestilentiall fores.

P 3

Cantharides.

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Cantharidos.

Childes are vied in outward remedies to caufe a Cblifter, and fometimes inwardly to mooue vrine : but fo they are most dangerous, for they will bring the difease Priaps/mea vpon the Patient in a violent manner, I once knew it given, but it killed the party the third day.

Campbura.

Camphura or Camphora of a mixt quality, refrigerateth Gand calefieth, alfwageth the paine of the head, inflammations of vlcers, wounds, cureth Eryfipelas or S^t. Anthomies fire, is effectuall against the Gonorrhea, the white flowers of women, bleeding of the nose, it is good against venoms and poysons : it preserveth the body from putrefaction, and is commended for many other vertues for breuity omitted.

Spodium.

Spodium an aftringent fimple, is cordiall, and good for Sfainting or fwounding, inflammations of the flomack, trembling, melancholly, and other affections arifing thence.

Sumach.

Streach is wonderfully aftringent, drie in the third degree, and colde in the fecond, it is good for the Diffentery, all bloudy fluxes, and womens fluxes, especially the white, and the Hemorrhoides, preferueth also vicers from inflammations and exulceration.

Galla

of the Medicines, and their wfos.

Galla.

Alla or Gales are colde in the fecond degree, and dry Gin the third, it cureth fluxions of the gummes : helpeth the vicerations of the mouth, flayeth the fluxes menftruall', and helpeth the mother falling downe, maketh the haire blacke, and confumeth proud flefh in wounds and vicers, and induce th a good healing to them,

Bolus verus.

Bolus Armena vel Orientalis verus is very dry, aftrin-Bgent, it is a good medicine in relifting the fluxes of blood, helping the Catarrhe, Diffentery and vlcers of the mouth, and preuailing against pestilence, all other like infections.

Bolus Communis.

Bolus communis, common Bole hath the same effects as

Stibium.

A Ntimonium, feu Stibium, vsed in due time and place, produceth very good effects, wreftling well with many kindes of strong difeases, commonly it is giuen in a Tertian, as also to the troubled with collicke paine, it purgeth vpward and downeward forcibly, and causeth sweat, it is a good medicine giuen with carefull respect : it killeth many by the violence thereof vnaduisedly administred, I lament to call to minde what fearefull accidents I haue seene follow the vse thereof, I aduise the Surgeons mate to administer it with great care, the dose is fine graines, belt taken by infusion. It cureth feuors, is good against pestilentiall feuors in their beginning. For it cureth

Of the Medicines, and their vses.

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reth fuch at oncetaking, and in any other feuours it may be given, the body being flrong.

Sulphur.

Support of Brimftone is hot, concocting & refoluing, it profiteth the althmaticall, cough, collicke, greefe, and refolution of the members : taketh away itch, breaking out of all the body:cureth tetters or ring-worms, and the fcurffe, and cureth rheumes and diffillations. Seeke further heereof in Sall, Sulphur and Mercury.

Alumen,

A Lumen, or Allum, is aftringent and yet purging, mendeth putrified vlcers, drieth the moyft, confumeth proud fuperfluous fleft, taketh away the itch, and cureth the fcab, and is very profitable in lotions for vlcerations of the mouth, throat, or elfe-where.

Vitriolum.

V Itriolum fen Calcanthum, or Coperas, is hot, aftringent and drie, killeth the wormes of the belly, helpeth against poyfon, keepeth the flesh moyst and from pus tritude, confumeth, contracteth and purgeth vicers. Seek more of this fubicet in the Treatife of Salt.

Fitriolum Album.

SEcke in the Treatile of Salt, in the end of Vitriolum for Swhite Coperas.

Contistucted . tostal Cerufa.

CErufa, or Venice feruse, refrigerateth, drieth, bindeth, extenuateth, gently represent excression bringeth

of the Medicines, and their wors.

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

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Plumbum A'bum.

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

Minium.

Plifying, filling vp hollow vlcers with flesh, bringing downe proud flesh, refrigerateth, closeth vp wounds, and induceth a liccatrize.

Plumbum vfum.

IS aftringent, filleth vp wounds, eateth away their excreficences, flayeth the rheume of the eyes, blood, and is profitable against the vicers of the fundament, hemorrhoides, and their inflammations.

Lithargyrum.

Lithargyrus, or Lithargyrum auri & argenti, & plumbi, Litharge either of gold filuer, or leade, doe all refrigerate, binde, repressed, ftop, fill vp hollow places, cleanfe, induce a ficcatrize or little fcarre : and preuaile against the galling of the thighes. The litharge of golde, of filuer and of leade, are all but one thing, though they are of feuerall names, colour and differences of operations, by reason of their different preparations, they are as Minismis, all the fonnes of Saturne, and are euen lead & no other thing. 2.

As Viride.

S viride, or verdigrece, hath a sharpe quality, digefling, attracting, extenuating, corroding & absterflue: stoppeth fretting and spredding fores, and eateth the callous hard flesh of fistulaes, good in vicers and Ophthalmies of the eyes, it is therus of copper or brasse either.

Tutia.

TViia is a getle drier, good against the distillations of the eyes, astringent, cooling, cleansing, stopping, and filling vp. It is the scumme of bratse in boiling.

Arsenicum.

W Hite and yellow Arfenicum, called arfenicum album & Citrinum, are enemies to the life of man or beaft taken into the body, this minerall killeth any liuing creature, and is of a coroding quality, outwardly applied, it caufeth a hard crufted fcab with vehement burning, eateth away fuperfluous fleih, & taketh away haires. It cureth the morphew, the skinne annoynted with water of the infusion thereof.

Argentum vinum.

A Rgentum vinum doth corrode, killeth the itch & lice, Awoundeth the intestines, suppressent vrine, swelleth the body, hurts the stomacke and belly, resolueth, penetrateth and purgeth. But of this see more in the particular Treatise of Mecury.

Mercurius

Of the Medicines, and their vses.

Mercurius sublimatus.

Mercurius fublimatus, made of Argentum vinum, is excellent against the Morbus Gallicus, this medicine truely prepared, is a Laxatiue, a Diaphoretice, a Diauretitice, a vomitiue, and the best and worst corasiue medicine that can be deuised. Quere the Treatife of Mercury.

Precipitate.

Mercury. *Ercurius Precipitatus* is very good to futher digeftion in vlcers euill difposed, and to dispose them to better healing, by cleansing and digesting them, and because it is Mercury or Quick-filuer, I haueno time for it in this place, but must referre you to my Treatise of Mercury.

Cinabrium.

Cinnabaris is aftringent, hot, extenuating, and hath the vertues or vices of Mercurius or Argentum vinum. It is of two kindes, either native which few know, or artificiall, and then it is compounded of Quick-filuer and Brimftone, and fo is that we buy in the fhops.

Flores Anthos.

FLores Anthos, or Rofemary flowers, are hot and drie in the fecond degree, comfort the braine, heart and memorie, and oher fenfes, amend the fpeech, helpe digestion, mollifie, cleanse, and cut away fleame.

Flores Balauftiarum.

FLores Balanstiarum or flowers of pomegranats are cold and drie in the third degree, they are also aftringent : Q 2 close

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clofe vp, and ftoppe, they cure the bloudy flixe, bleeding of greene wounds, they are good in lotions for moilt and weake gummes, kill wormes, and falten loofe teeth.

Rife rubea,

R Ofarubea or Red-roles are cold and drie in the first degree, refrigerate, and are astringent, they purge chollericke humors downward, open, strengthen, and clense the liver from obstructions, comfort the head, stornake, and heart, helpe against consumptions, and inflammations, cause steepe, and stop spitting of bloud.

Flores chamomille.

F Lores camomilia 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.

Flores melliloti flowers of Mellilote are of a drie and hot qualitie, digeft, confume, diffolue, and maturate, preuaile against all hot fwellings, prouoke vrine, breake the ftone, allwage the paine of the kidnics, bladder, and belly, ripen fleame, and cleare the eie-fight.

Florescentaury.

Flores centaury or flowers of centrey are of a hot and drie complexion in the fecond degree, purge choller, and grotle humours downeward, open the obstructions of the liver, kill wormes, cause the course of flowers, are good against the laundice, hardnes of the spleene, griefes, of

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of the linewes, cleare the eyes, heale wounds, and drive forth young fruite.

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Flores Hyperici.

Flores Hyperici or flowers of Saint Iohns wort are hotte and drie in the third degree, breake the flone, prouoke vrine, bring downe womens flowers, floppe the laske, driue away feuers, are good for burnings, and cure olde, and fiftulated fores.

Flores Sambuci.

Flores Sambuci or flowers of Elders are hot and drie in the third degree, open the belly, purge flimie fleame, and chollericke humours, and are good for hot fwellings, and tumours, and for the alfwaging the paine of the gout.

Bacca luniperi.

Bacce Inniperi Iuniper berries are hot in the third degree, drie in the first, and aftringent, are good for the stomake, cough, windiness, gripings of the belly, venemous bitings, infection, contagion of the aire, helpe the lungs, liuer, kidnies, and bladder, and prouoke vrine.

Bacca lauri.

Beace lanri or Bay berries are hot and drie in the fecond degree, they refift poifon, helpe deafneife, contracted and wearied parts, and the paine of the breaft, cut vp fleame, and take away the fourfe.

Farina tritici.

Floppeth spitting of bloud, distillations of subtill hu-Q_3 mours,

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mours, helpeth the cough, roughnesse of the sharpe arterie, diffolueth tumours, and clenseth the face from lentills and spots, appealeth 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 moift, diffolueth all fwellings, is very good for vlcers, euills, and blastings of the genitories, and taketh away inflammations of womens paps.

Farinabordei.

Farina bordeacea or Barly meale is cold and drie in the first degree, ditfolueth hot and colde tumours, digesteth, softneth, and ripeth hard swellings, stoppeth the laske, and humors falling into the ioints, discutleth winde is good against the scurfe, and leprosie, and allaieth the inflammations of the Goutes.

Furfur tritici.

F^Vrfar or wheatebranne, is good against the scurfe, itch, and spreading scab, dissolute the beginning of hotte 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 given by glisters, as is mentioned in the cure of Difenteria.

Farina Volatilis.

Flaye fluxes of bleeding wounds.

Rofemarie.

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Rosemarie.

R Ofemarie is hot and drie in the fecond degree, cureth the laundice, and the *Regius morbus* or Kings-euill, comforteth the braine, memory, and inward fenfes, and reftoreth the fpeech loft or broken.

Menthe.

MEnthe Mints are hot and drie, doth profit the flomake, appeale the hickok, floppeth vomiting, cureth chollericke passions, griping paine of the belly, and the inordinate course of menstrual itsue; easeth women in their trauell of childe-bearing, it fortneth breasts fwolne with milke, and keepeth the milke from crudding therin.

Mellilotus.

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Millious Mellilote is hot, and aftringent, it doth fwage, and mollifie hot fwellings of the eyes, matrix, fundament, and genitories, healeth the fcurfe, and putrified vlcers, diffolueth Apoflumes of the flomake, is good for the head-ach, prouoketh vrine, breaketh the flone, helpeth the paine of the kidnies, bladder, and belly, and taketh away the webbe and pearle of the eye.

Degand and Salusa.

Stomwhat altringent, ftoppeth the bleedings of wounds and bloudie flixe, openeth the ftoppings of the liver, cureth th cough, breaketh the ftone, prouoketh vrine, comforteth the heart, alfwageth the head-ach, and paine in the fide.

Thymum.

Thymum.

Thimum or Tyme is hot and drie in the third degree, is good to clenfe the breft, ripen fleame, and for the Afthma, purgeth chollericke humours, corrupt bloud, bringeth to women their naturall tearms, expelleth the fecondine, prouoketh vrine, difcuffeth winde, extenuateth colde fwellings, and helpeth the cure of the falling lickeneffe.

Absynthium.

A Bfynthium or Wormewood is hot in the first degree and drie in the third, it is bitter, sharpe, and astringent, clensing, purging, and comforting, excellent to purge the stomake, liver, and reines from chollericke humours, and to stay the weake stomake from vomiting, cureth the landice, resistent pestilent infection, helpeth the dropsie, and spleneticke, and killeth wormes in the body.

Cardum benedictus.

Candhot, comforteth the heart and vitall parts, moueth fweate, refifteth poyfon, is of much vie in peffilent difeafes, mittigateth the paine of the reines, and fides, killeth the wormes of the belly, and preuaileth against bitings of Serpents.

Melifa

Melifa or Balme, this herbe is hot in the fecond, 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

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Sabina.

Sucketh vrine with bloud, moueth the flowers, driueth forth the fecondine, liuing and dead birth, cureth vlcers, and eating fores, and clenfeth the skinne of Lentils.

Radices Althea.

R Adix althes Hollihocke roots are hot and drie in the first degree, they are profitable for the grauell, stone, bloudy flixe, tooth-ach, Sciatica, and cough; they cure new wounds, disfolue cold tumors, wennes, hard kernells, impostumes, fores 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 filmestris or Horfe redish roots are hotte fin the third degree, drie in the fecond, is good for the ftomake, caten before meate causeth winde, and defire to vomit, but after meat digesteth, purgeth steps, prouoketh vrine, breaketh the stone, helpeth the dropsie, liuer, sicknesse, old cough, stopping of the reynes, lithargie, chollicke, and hardnesse of the spleene, stayeth fretting, and feshing vicers, causeth haire to grow, and clenseth the face from spots.

Radices Pyrethri.

R Adices pyrethrior Dellitory roots are hot & drie in the third degree, good for old cold difeates of the head, & braine, falling ficknetle, and apoplexie, mittigateth the tooth-ach chewed, bringeth foorth much waterifh flegme R helpeth

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Radices angelica,

R Adices angelice Angelical roots are hot and drie in the fecond degree, they doe open, attenuate, digeft, cut and difcuffe grotfe humours, they are aduerfary to poifon, helpe peftilent difeafes, caufe the flowers, comfort the heart, and vitall poures.

Radices consolide maioriz.

R Adix symphiti magni, seu consolide maioris, or Comfrey roots are hot and drie in the fecond degree, they doe helpe spitting of bloud, the breast, and lungs, cureth the inward wounds, and ruptures, are glutinatiue, mittigate hot tumours, and healefresh wounds.

Calx vina.

C Alx vina or vnflakt lime is hot and drie in the Gfourth degree, having a fierie fharpe, and burning force, concocteth, mollifieth, diffipateth, cureth corrupt flinking vlcers, very hard to be cured: and bringeth them to a cicatrize or skarre.

Album gracum.

STercus caninum, feu album gracum, is hot and aftringent, ftaieth the laske, cureth the Squinancie, helpeth the Difenteria, and driueth away feuers that come by courfe, and is very good to ftrew the fundament fallen withall, for it cureth the flipperinetfe thereof, and caufeth it being gently put vp to ftay vp, and being mixed and boyled with fallet oyle to the thickneffe of an vnguent, is very good to cure the painefnll Hemorroydes.

The

in both proti 3 Table sell 90 The Conclusion touching what bath beene spoken of the vertues of Medicines Simple or Compound for the CHEST.

THe vertues, vles, and doles of all the precedent Medi-L cines here noted, haue beene gathered from fuch Authors as either were the Inuentors of them, or formerly haue taken them vpon them, to whole workes I referre the Reader, which thing if any well disposed Artist vpon good ground shall question, I doubt not to fatisfie him. The Authors I have vied herein are these following.

> Galenus. Mesues. shem swherein i contelle Ausicenna. Tagaltius. Vigo. Paracelfus. Iofephus Wnerritanus. Renodeus. Iohannis Iacobus Wekerus. Dodoneus. Valeius Cordus. Riolanus. Rorlandus. Ozwoldus Zollius. Dorucretius. R 2

Augustanus

Of the Medicines, and their vses. Augustanus. Lieb beene Posten o Montanus. Matheolus. Fernelius. Diascorides. Franciscus Arceus. Monardus. Nicolaus Alexandrinus. Serapius.

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re limes

annothighthe

And fome others whole names fometimes I have remembred, and noted : fometimes for haft pretermitted them, wherein I confeile I have done them hard measure, like him which in haft ouerrunne his good friends, a fault too common.

anniss Lacobirs Welcerris.

Cortanders

Bur Zolling

Of Wounds.

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Wound being a recent folution of a Definition of a continuitie; or a diuifion of that which wound. was knit together without putrefaction; and common as well to the foft and organicke parts, as alfo to the harder : it may (though feldome it doth) arife from an internall caufe, 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 caufe a wound is faid to differ in his denomination : for fometimes it is called a thruft or pun- The divers ab-Ation, which is made by fabbing with any thing fharpe pellation of pointed, as a Dagger, Rapier, or the like : fometimes it is wounds. named a contution, when a weighty thing offending (as timber) falling downe or violently caft downe (as a ftone) the flesh being bruised and broken : fometimes also it hath the appellation of incifion or an incifed wound, for that it is done by an edged inftrument, as a knife or fword. And these wounds are either timple or compound : the fimple being onely in the vpper fkin or flefh without detriment or lotfe of fubftance, which alfo haue their feuerall fpecies or kindes, becaufe of their diuers formes: fome being greater or imaller, profound or fuperficiall, long or litle, straight, round, or crooked; of a facile cure, or difficile, or mortall. And for the founder judgment and better cure of all wounds (which are either externall, or internall and penetrating) there are feuerall fignes with much diligence to be had in remembrance of ancient tradition, which daily practife alfo verifieth.

The feuerall differences of all externall wounds are difcerned by fight 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 discourred likewise by sight, by feeling, or by fearching with an instrument into them.

Of Wounds.

The hurt or ruption of the membranes or braine is accompanied with fneeling, vomiting, bleeding at the nofe, or cares, rauing, and the like: but if the fubiliance of the braine be hurt, those fignes are increased, and a bilious or sharpe vomiting is scene; also a feuer, dull vnderstanding, with alteration of fauour and countenance do ensue; stupiditie also and dumnesse fignifie the braine contusted.

The Breft is obferued to be wounded and penetrated, when ayre commeth forth of the wound, or when the perfon ficke hath in his mouth a fenfe of the things applied to his griefe.

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

The Perieranium hurt hath fometimes foddaine and often fwounding for a figne, though fome neuertheles hauing the Perieranium wounded or contused, haue no cuill fymptoms 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 Breaft be offended, an immoderate flux of blood, defection of virtue in all the faculties, a cold and an vnfauorie fweat doth enfue, and death within a few houres.

The folution of continuitie in the finowie parts of the Diaphragma caufeth convultion, difficile refpiration, an acute feuor, rauing, and death: but if the flefhie part only be agreeued, it is fubiect to remedies, and fuffereth not fuch dangerous fymptoms.

If the recurrent Nerues be wounded there followeth losse

Of Wounds.

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

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

The Splene offended is as the Liver affected, faue that the fymptoms are in the right fide, th'other in the left.

The Ventricle is demonstrated to be wounded by the voy ding of *chylus*, frequent vomiting, fwounding, fainting, and death.

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

The figne of the Reynes or Kidneis wounded is the fuppression of vrine, which causeth a fore paine in the groyne and testicles, with inflation or fwelling even to death.

The accidents of the bladder offended are one with the reynes, vnleife the finowie parts thereof be greeued, and then diffention of the belly, piffing of bloud, vomiting, voiding of vrine at the wound, suppression of the faculties, and doting, and death follow.

When fpine Medulla or the marrow of the backe bone is hurt, there followeth the refolution of the linewes (which hindereth the function of the fenfe and motion) voluntary euacuation of excrements appeare, and for the most part death is the immediate conclusion.

The folution of a Veyne is knowne by bloud of red colour and thicke fubstance.

The testimonie of an Arterie hurt is bloud fomewhat yellow, fubtle, thin, hot, beating and leaping, or violently issuing, and as it were by iumps.

The tendons, membranes, and Ligaments wounded or incifed bring the fame fymptoms as the Nerues doe.

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The Cure.

Wherein the cure of wounds ingenerall doth confist.

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THE Cure of wounds is either by the helpe of nature or medicine : if by nature, the firife is at an end the Artift my faue a labour; if by medicine their cure confifteth both in the reduction of parts difloyned and diflocated, to vnion, and in confolidation and true conglutination of them: therefore it fhall be necellary to confider that if any thing hinder confolidation it be remoued : that reduction be rightly and skilfully wrought, left the parts adioyned fall into relaps, and that the fubftance of the part with his naturall temperament be conferued : and laftly, that the fymptoms be prevented and carefully cured as they arife.

The first intention in curing of wounds is to take away whatfoeuer is besides nature, as yron, wood, leade, or ought elfe 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 elfe might seeme to hinder the good application of medicines to the greefe, is the first part. Striue also to fet 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, future, and other due, and artificiall meanes.

It is requifite also that the naturall temperament of the part be carefully preferued. and that is done by a certaine carefull regiment of the body, which is vniuerfall or particular.

The vniuerfall regiment, confifteth in purging medicines, as potions, glifters, a fober and frugall dyet, abflinence from wine, venerie, and all kindes of meats which may moue or attenuate humors, & moderate vfe of good nourifhing fuftenance, all which helps the poore Sea-man is not capable of in long voyages.

The

The particular Regiment is in remedies which confirme and ftrengthen the naturall heat of the member debillitated, and which hinder and auert fluxion: fuch are Unguentum Nutritum diapalma, I meane Diacalfubios diffolued in Oyle of Roses. Ceratum Refrigerans. rosatu me fue. Ungu: deminio, or the like.

The generall accidents most to be feared that affect the wounded are Hemoragia, dolor, tumor, intemperature, 2 feuer, faintnes of the heart, convultions, specially where a finew is wounded.

Hemeragia or flux of blood is flayed by medicaments The cure of altringent, fitted and applied with convenient future or Hemeragia. ligature; and fometimes by medicines caufficke, either actuall or potentiall, touched in the Treatile of amputation or difmembring.

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

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 Liver chiefely confifteth in oppilation or debilitie of the faculties thereof; and is helped chiefely by wholefome nutriment : the lamenta. ble want whereof at Sea is the caule of many the greeuous obltructions, and other euill affects in Seamens bodies : fo that oft-times a good Artift shall not be able to heale a meane excoriation.

The Accidents common to the wounded heart, as is faid, are fwounding palpitation thereof, a hot burning feuor and many other.

Syncope is a folution of the spirits which forfake the heart, whose remedy is Cordialls, if God haue appoinred life.

A Feuer is a heate in the heart more then naturall, infused and disperfed through the whole body, whole cure 18

is by purging, bleeding, and good gouernment. A convultion is a dangerous difease of the braine, which often-times is a fore-runner or a metlenger of death.

The difeafes in the braine are either in the membranes, fubstance, or ventricles, and passages thereof, whole species and fymptoms are many, and for the most part very dangerous, and of difficult cure. For if the fubftance of the braine be offended, the functions thereof are impedited, whence proceedeth doting, melancholy, foolithnes, flothfulnetle, Lithargy, frenzy, madnes, loffe of memory, deadifh fleepe, giddinetle, apoplexie, Paralifis, and diuers other like accidents formerly recited. And if the ventricles of the braine bee wounded, then the motions and fenfes thereof be greeued. Wherefore for the better cure of these wounds in the braine dificcation and ficcatrization in due time is needfull, either by fimple medicaments, (as Spiritus vini, bolus Armenia. Terra figillata. Lithargirum, Cerusa; Tutia, adust lead. burnt paper, Allom water. burnt Vitriole) or by compound medicines, (as Ung: de siccans rub: Diapompholigos, & Diapalma)

Divers Acci- And as you fee the accidents of the wounded are didents will have uers, fo the remedies are not all alike: but fome are gedivers medica- nerall, 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 faid, according to the diuersitie of the parts affected: for if contulion or ruption be onely of the flesh vnder the skin, there is required confolidation by easic comfortation, and deficcation, 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 contuled wound, if it be great, requireth purging glifters, potions, or pills, phlebotomie, a wholfome dyet, perfect euacuation of the humor that commeth from the veynes,

veines & suppuration of the contused & liuid flesh which two laft are effected at the first by mean remedies, (as oyle of roles & mirtils) and fomtimes by a Paracelius plaster. It will defire also superating medicines, fitting the greatnesse and nature of the contulion, It may be healed in the manner of an apostume, and if putrifaction be feared, thevfe of a good Lixiuium, of cupping glatfes, and light fcarification, is most necessary, that the humour about to putrifie may be euacuated, fo shall the wound be better cured:but when the wound shall be with lotse of substance, then let thy endeauour be by renouation and regeneration of the the fubstance diminished, or the intemperature, be careful by convenient digestive medicines to produce laudable quitture, 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 confider diligently Another note the excrements of the wounds, their fubstance, quality, and for the remonquantity, thefe wil fhew thee what is fuperfluous, not natu- uing of that rall, and what hindereth the action and dutie of nature, which is befides that it may be corrected and taken away by fit and conue- nature in a nient remedies. The medicaments incarnatiue, or for regeneration of flesh, are the flower of Barley, Beanes, Lupines and Crobus, Myrrhe, Aloes. Thus Ariftolochia & Iris, which are vied either by themselues, or mixed with turpentine, Mel.Rofarum Syrupe of dry Rofes, the yolke of an egge, or the like: alfo Bazilicum magnum, Vngueutum aureum, are good incarnatives, the Emplastrum gratia Dei, made of iuyce of hearbes, the Emplaster of betony, diffolued with Axungia porcina, and follow the generall rule, let the dry bee more humected, and the humid more diliccated.

The cure of wounds caufed through the biting of ve- renemous nemous beafts (as madde dogs, scorpions, vipers, serpents, wounds, which bees, filhes, walpes, hornets, fwine, or other the like, is per- is either interformed first by taking away that which is virulent, extra- nall or external. cting, diffipating and confuming the poylon, which work requireth internall as well as externall medicaments. The internall S 2

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Howtocure

internall mult bee fuch as comfort and confirme the parts difeafed (as Theriaca, Mithidatum, Confectio alkermes, Bole Armenie, Conferue of Borrage, Buglotle, Rolemary flowers, and the like) that fo the virulent vapour may bee abolished, which otherwife will infect the whole body. The external mult also intend to extinguish the venemous vapour (and fuch are cupping glaffes and fcarification, alfo all hot medicaments attracting, as Galbanum, Ammoniacum, Bdellium, Emplastrum Diachilon and Diuiuinum, 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 fame magnitude, but in mine owne practife, I heat Balme Artificiall feething hot, and apply it for the first dreffing if I feare venome : and if I feare a Gangreene, Ivfe Ægyptiacum as hot as may be, and ouer the wound I apply a Lixiuium : flender and wholfome diet is alfo good, that may neither increase melancholly, nor heat much the blood, and abstaine from bleeding, vnletle the noble parts bee rainted, and then thou may ft fafely purge, bathe & fweat, which is knowen when the animall faculties are offended.

The sure of mounds in the is doth confift.

The wounds in the veines and Arteries, bring with them commonly a fluxe of bloud, which to flay is a speci-Arteries, wheref all bulinelle, confifting cheefely of altringent remedies, good application, suture, ligature of a veine or artery, if it may bee done conveniently, and fometimes caufficke medicaments : yea incilion, phlebotomie, the vie of cupping glaffes and ligature on the parts opposite, which three last are not alwayes to be prefumed vpon as fafe courfes, but vpon neede, if so be the veine or artery wounded be great many things are offorce put in practife, which otherwife feeme very harfh. The aftringent fimple to make compounds, are Bole Armenie, Terra sigillata : Thus alocs, mastike, myrrha, Sanguis Draconis, flowers of wheat, barley, mill-duft, and divers forts : likewife Allum, Vitriole, Precipitate, mans blood dryed, and fundry more femetime

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time to make a Ligaturevpon 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 fure and ftrong filke thread : but ofttimes it happeneth that the ends of the veines or arteries wounded cannot bee found, in which cafe an actuall cauftike remedy, or a potentiall caulticke medicament, which induceth an esker, and stoppeth, and couereth the orifice of the veine, is conuenient: fome alfo lay there thumbe on it fo long, vntill it bee fomewhat of it felfe stayed, and then bind it vp, which is good in meane fluxes, I have often preuailed fo, and after that the flux of blood is flayed let the ficke party bee contained in a place neither too hot nor too colde, and darke, speaking little, that the cure may be accomplished with more eafe to the patient.

The wounds made in the nerues, tendons and aliga- The cure of ments, whether by incition long or ouerthwart, a thrust woundsin the profound or superficiall or by contusion, great, little, or mente meane, require a good diet, fuch as is, meat easie of digeflion, refrigerating and caufing little blood, but the choice of fuch things at lea must be forborne, and that the body be kept open by glifters, mollefying and cleanfing, and if needebee by potions ealie and gentle, that the humours be not too much flirred to inflammation, blood letting is fometimes needefull, likewife Anodine medicines which resolue and extract corruption, by the pores of the skin, ftrengthen the part affected, and haue an affinitie, or a certaine property to comfort the finewes : fuch are Turpentine and the oyle thereof, oyle of Euphorbium, Rue, Wormes, Yolkes of cgges, Rolin, Pitch, as alfo a Cataplasme made of bread crummes, milke, and a little Saffron, the like made of Althearoots two ounces, mallowes and forrell of each an handfull, floure of Beanes, Lupines and Orobus, of each two ounces and an halfe, red Rofe leaues powdered halfe an ounce, common honey two ounces, Chamomile oy le one ounce, all made into a cataplasme according to Art. But if paine and inflammation be

The cure of a nerue contused. 134

be in fuch wounds neere to an article or ioynt, apply a cataplafme made of bread crummes, with the inyce of Hyofchyami, or coole hearbes, or Vng. nutritum, Populeon Album, or fome of those, that the burning heat may bee extinguifhed, or of oatmeale fodden in water with a little oyle: But if consultion happen to a finew wounded or pricked, cut off all the finew, for if the nerue shall bee wholly abcifed, letser fymptomes, through impotency and deprivation of action ensue, then if the middle or any part be wounded, and the cure (and note it) is not fo fase to fow it vp together, as fome thinke, because his adunation is vncertaine.

If a finew be contused without any wound, let it be corroborated by medicaments frengthning and aftringent. The cure of the wounds of the head is not alwayes to bee prefumed vpon, though fmall, nor yet difpaired of, thogh great. Confider therefore diligently, whether the braine it selfe be hurt or no, if the braine be offended, it is to bee knowen partly by theinflammation, dolour, apoflumation, retraction, consultion or deprivation of the functions of the fences, and death alfo is fufpected prefently, or within a few dayes to follow, and if the palfie posses the opposite part, it being found and whole, it is doubtfull, and the fympathie of parts will caufe oft times an abfceffe in the Liver and Mellenterium, and an Intemperature of the vitall faculty with a continuall feuer and death. It shall therfore be necellary for the wife Artifl to know the manner of the hurt, that he may wifely prognoflicate the danger, for if onely the Pericranium be hurt by incifion, without any contusion, and farre from the commissures or feames, 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 fymptoms arife with a tumour in the head, then dilatation is needefull that the contused bloud which is betweene Cranium. and Pericranium may bee extracted, and let it be quickly done, fo shall the fymptomes cease and the cure will bee cafie, but and if the offence of the Pericranium be in the future

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suture or seame it is more dangerous, because the braine doth fympathize with it, if the Fibres paffing through the futures of the Pericranium from Dura mater be wounded or contused it exceeds the other in danger, therefore to refiftputrefaction, 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 cureshall be as in other wounds. But if a fracture in Cranium Speciall obferchance, there is required great care, namely, let the forme wations if the and magnitude thereof be well confidered, observing also bones of the diligently what boneit is, and in what part it is hurt, and head be broken. whether the fragments are great or little, or fharp, pricking the Membrans or not, which of what fort foeuer they be they are diligently to be drawneout with as much eafe as may be to the Patient, and if they cannot being broader within, then without, let the Trapan be carefully vied, the vfe whereof is touched in the booke of inftruments, vnder the name Trapan. Sometimes there is onely a depreffion, and then a Leuatorie inffrument will excuse the vie of a Trapan, and take away the fpills and fragments which are vpon the Membrane, and the bloud alfo which shall issue out vpon the fame may by a fpung betaken away : keepe it likewife from cold, and of a temperate heat, and the place hurt being well clenfed, poure mel rofarum warmeinto the wound, or two parts of Hony, and one part of oyle or fyrupe of drie Rofes, 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 linament of Arceus is the chiefest Balfame for wounds in the head. The generall remedies for wounds of the head must neither ouermuch refrigerate, 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.

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 deprefsion

ry needfull the head wounded the Second time opened.

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fion of Cranium bee, ftriue with the elevatorie to raife it. The next is to flay the fluxe of bloud if any be, leaving of the griefe vndreffed for two daies that the vaines may knir, then inquire of the Patient if hee haue thebenefit of nature, if not, procure him one, not many flooles, and onely fee he haue naturall stooles once a day, or in two daies, Instructions ve not by potion nor pills, but rather by glifter or suppositorie. The fecond opening of the wound, if occasion ferue, vsethe Trapan, or take out any spills or bones that seeme to offend, if they be very loofe, not elfe, force nothing out of the wound, except the Patient his great necessitie force thee thereuuto; for Nature is kinde, and ready to do wondrous helpe in the cure of the head. For the fecond application, haueready of the noble linament of Arcens neuer fufficiently commended, and being fomewhat hotter then the partie would willingly beare it, annoint the wound therewith in each place, with a little foft lint on a Probs end, leaving the faid lint therein, and with plegents of lint drie fill vp theorifice, and after annointing about the edges of the griefe, apply a plaster, either of Emplast betonie, Stipticum Paracelfi, Minium, Mellilote, or Diacalfithees, in wast of Arceus linament you may take oleum rofarum, and mell rofarum which are not inferior much to theformer, being warme applied : Somevie therewith a lfo a digeftiue of Terpintine, and the yolke of an egge well mixed, ana a like quantitie, wherewith they fpread plegents, and then dippe them in the warme mell and oyle mentioned, and fo apply them, which is very good, and and the most ancient practife in curing wounds of the head.

In want of oyle of Roles oyle of Oliue will do well, and common honey for mell rofarum, though not fo well: and if caule be, some Artills mix spirit of wine, or good aqua vite with the former medicine, and it comforteth well the braine, and very much furthereth good and fpeedy healing, good bowlftring, and ligature doth much auaile to the cure of wounds of the head : allo it is good to keepe the

the party lying and in a darke place, till the greateft danger of accidents be pall, remembring withall that the ouerftrickt keeping him in , may also be very offensive to the ficke.

Let good diet fricktly be observed, if occasion be, and the vie of glifters likewife vpon good reasons is also to be approued, and it is good to open the Cephalicke vaine if the braine haue beene long vncouered, or yeelde a fpumous white and thicke excrement, which feemes to bee a portion of the substance of the braine : likewife to purge the body, mundifie the wound, and corroborate the braine with Cordialls, and fomentations fitting, as the chiefest is good wine and hony to foment with, but I fel- untion of the acdome vie any fomentations, my felfe haue cured diuers cidents of a fractures in Cranium without any fomentations at all, and wound requifor the vie of them at fea I know is troublefome, and dan- red. gerous except great caufe. Be carefull alfo to observe 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 fecond table, it must not be paffed lightly ouer, for if you be occasioned to vie the Trapan 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 fome fuppofe, where there is apparant neceffity, except on the day of the full of the Moone, and then there is danger more then elfe, but necessity hath no rules.

The cure of wounds in the face would if it were poffible be done without a Ciccatrice, but that cannot be performed without a drie flitch, with alfo a most artificiall and convenient binding the lippes of the wound together, with also a fure naturall balme : wherefore I will not ftand to teach the drie flitch here, for it is not proper at lea, it fits the land better. In the worke of future or flitching, take heed that the skinne and flesh bee not ouerthicke which you take vp with your needle, and let not your flitches be 100 close. A true ligature of the face is fomewhat difficult

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Diligent obser-

cult to be performed, becaufe of the cauities 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. 138

The Nofe and Eare wounded require good and careful ligature, and Emplasters that will cleaue fast to the griefe.

The wounds of the eies are dangerous by reafon of their affinity as well with the Pericranium as the other Membrans of the braine, fo that they are for the most part full of bitter paine, caufing loss of fight : wherefore by glifters, bloud letting, cupping glass, purgations, and fober diet the accidents are to bee staied, The medicines outwardly which I have vsed ever with good fuccess, is the artificiall Balme with fine lint warme applied on the eyelids, and a *Paracelfus* plasser over that, and therewith I have done great cures in wounds of the eyes: but I never dropt any medicine into the eye it felfe.

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

If the fhoulder be wounded it is cured as other wounds except the wound bee in the ioint bone, ligaments, and nerues, which needeth a future, and if it be ouerthwart, a conuenient Fafcia, or Ligature for the fuftentation of the arme is to be carefully prouided, for without good ligature those wounds doe not well, but for ought elfe their cures are common to other wounds.

The cures of the arme are fometimes dangerous, chiefly if the bone, and ligaments, or the muskells with vaines and nerues be incifed thwart, let the remedies therefore be fuch as are proper and agreeable to the nerues, as namely, the artificiall Balme very warme applied, and a *Paracelfus* plafter with ligature fitting.

But if the hands be wounded, and the tendous ligaments, and finowy parts thereof offended diuers abfeetles in many places, with inflammations, and exceeding fore: Sometimes paines arife, which may occasion the vse of purgations, bloud-letting, anodine medicaments, and a spare

fpare wholfome 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 even polition.

The wounds of the Thorax externall fuffer to bee couered with flelb, and to be healed as other wounds ; but Wounds that penetrate the inward parts are dangerous, namely, if any great quantitie of bloud lie in the capacity of the Thorax, which cannot be euacuated by the wound, but if it can be euacuated there is hope, otherwife it is defperate. Alfoif the bloud may be extracted, and no internall part feem 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 burft, and aribbe vncouered, as it oft-times falleth out, it is to be iudged incurable, and a Fiftulae will remaine there continually. And if the former part of the Thorax bee ftrooke through euen to the latter, but not through both, if the wound be little and slender there is some hope of cure, otherwife not, but it is commonly palt cure, yet neglect not thy duty, nor despaire, for God is mercifull : Let thy cure be attempted with good diet as is faid, glyfters, bleeding, fyrupe of Violets, and Hyfope and the like, vnguentum potabile drunke fasting 3- ij, or 3 for a dosse, and fuch locall Medicines as are mentioned, but if paine or the like accident shall be in any part of the Thorax, vie Anodine medicaments as well as Sanatine, lest paine hinderreft, and ouerthrow all.

The outward wounds of the belly do nothing differ from the generall methode of other wounds, touching locall Medicines, only in ftitching they differ much, but · the inward differ as, the parts offended may be divers, as namely, when the Omentum commeth out with all hafte putit into his place leastit 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 fo much as is out, and cut it off being carefull of the guts, if the inteffins passe out by a wound, the wound being very little

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litle they will hardly be reduced, vnletse they be pricked, for they will fwell with winde : but if the substance of a gutt be wounded, sowe it together & consolidate it; and if the liuer, splene, 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 finowy parts.

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

The Knee wounds also are cured as other finowie parts wounded are. The Ancle, foote, and fole thereof wounded is hard of cure, because there are many bones, ligaments, tendons, and sinewie parts among them : they are also placed in the lowest part of the body, and therefore are subject to defluxion of humors.

Of Gunshot Wounds.

Wounds by Gun Shot are compound.

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The divers form of wounds by Gunshot.

Ounds madeby Gunshot are alwaies compound, neuer fimple, 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 fodaine violence of the blow. The composition of which wounds for the most part confists of lotte of fubftance, contusion, fraction of many linewy fibres, veynes, Arteries, membranes and bones, yea often fhiuered into diuers peeces, being in forme different, as fomeround, narrow, and wide, and in figure cuniculus, triangular, quadrangular, fistulous &c. at the first bringing with them no Hemorragia or fluxe of blood, although the veynes be broken and open, the blood returning backe through the fearefull violence of the froke. The first curatiue intention of these wounds is dilatation, whereby the enemie to nature may by an open orifice bee expelled.

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led. The fymptons of fuch wounds are Hemorragia, furtiue, or a stealing fluxe of blood trickling out by litle and litle, Gangrene vnawares affaulting the party : alfo a pofthumation, dolor, and the like. Wherefore as an entrance to the cure, let an vniuerfall regiment of the ficke be carefully observed, namely that as much as is possible, hee vie whollome aliments, fuch as relift putrefaction (as fowre 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 Trekell Z-fs. or Diatefferon Z-fs. These rules at Sea are not fo well to be obserned as at Land : wherefore let the Sea Surgion therein doe his best, let his ordinary drinke be Ptisans, or barley water : conceale from him the magnitude of his wound : keepe him loofe onely with glifters, or suppositories : let him bloud if neede be, and yet but a litle, left poyfon or venome fetled in the outward parts, be thereby drawne in backe into the more noble parts : and abstaine to give 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 Ligameuts bruised and broken, being changed from sound to vnnaturall and vicious : those humors are to be euacuated, or their dangers preuented by good alterative remedies, namely abstersive medicines, as a good Lixivium, or by supperative, mundificative, and disccative things having faculty, confirming and strengthning the parts affected. Therefore the feare of a Gangrene being taken away, suppuration must be intended in the flesh conruled, but if in the parts contused there bee 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 Alexipharmacon or Prefermatine against poyson be given the ficke, if you see cause, namely a litle Venice Trekle or other Trekle on the point of a T 3 knife,

knife, if it be right and good : but if you doe feare the vertue thereof to be doubtfull, as often it is, giue it ditTolued in firit of wine, Cinamon water, or good aquavita, where vnto adde certaine drops of Oyle of Vitriole, for it exceedingly relifteth putrefaction. You may for a neede giue Mubridate, London Trekle, or Diate feron alone : or if the party be of a cold conflitution, then give him Dia trion piperion, or good Rofa folis a little. And if he be ftrong, after he is dreffed, you may lay him to bed to fweat, and procure him thereto by a dose of Diaphoreticon giuen in Trekel or Mithridate, regarding as is faid that the ficke 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 faid, fo much as the time and place can permit. Which effected, in the next place confider 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 Lixwinm, to foment the parts percuffed or contufed, let it be fuch a Lixivium as I have described in the cure of Fractures, but somewhat sharper; to which for breuitie I referre the Surgions Mate. Alfo haue ready Ung: Agyptiacum, and the Causticke stone, if it may be: alfo the Artificiall Balme, Oyle of Vitriole, a good Restri-Etiue powder, good Ligature of all forts, flitching needles ready, with all other fit inftruments not farre of, if occafion should bee, as tents, splints, dorfells, spunge, clowts, rowlers, tape, tow, lint, plasters ready fpread, and the like, Fronte capillate that when an occasion happneth he might be ready to performe his dutie.

post eft occasio calva.

Themost notable differences I have ever observed twist a wound made with Gunshot, and an other contuled wound, is onely a steeling flux of bloud, and a dangerous disposition to a Gangrene, which two accidents warily preuented the Cures of fuch wounds differ nothing from ordinary wounds contused.

In the curing of wounds of the head, as is faid, Arcens Linament

Linament is the chiefest Balme : the next therevoto in common vie is Mel Rof. & Oleum Rofarum 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. alfo the Vng: Incarnatinum : or Vnguentum Aureum is a generally good healing Balfame ; you shall finde it no letle. Basilicon is also a good healer of new wounds, but the best is the Artificiall Balme. For dangerous wounds, Gyle of Terebinthine is very good; but Venice Terbinthine alone is much better ; and common Terbinthine is not to be defpifed; and no more is the ordinary digefline of Terebinthine, and the yolke of an egge, of ech a like quantitie well mixed together.

And yet I would not doubt at all without all thefe recited medicines, to finde fufficient healing medicines in the Surgions Cheft 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 at- Directions how tendeth great wounds made with gun-fhot, all care in time to present putreis to be had to preuent the fame. Let therefore your first faction to great locall application, if you feare putrefaction, bee Vngu : wounds incident. Ægyptiacum 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 exficcation, or cautrization, adde fome burut Vitriole, and foment fomewhat the outward parts of the greefe with a hot Lixinium, and apply a hot flupe wet in the Lixinium & wrung outround about the member : but if the outward parts about the wound be altered in colour, or grow either ftinking or infenfible, make fcarification and foment well with ftrong hot Lixivium; and inject thereof into the wound very hot; and after fuch fomentation, fcarification, and injection vfed, as is faid. Then if you yet fee caufe you may vse the former mentioned Agyptiacum with a hot ftupe, and removenot that dreffing without extraordinary cause, I meane the Agyptiacum, in lesse then 48 houres, I meane, if you have caused a good Esker. The next drefling

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dreffing after the *Esker* procured by the former dreffing, it is likely you shall finde digestion though vnperfect, namely durty and fowle, and the wound will be very tender and fensible, and subject 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 dreffing, and of as gentle medicines as may be. I have vsed Arceus Linament warme, and with fost linte applied: and the edges or parts neere the wound annointed therewith, and gently filled the wound with lint, then ouer that a Paracelfus plasser; and ouer all a large hot super that a good Lixivium, and wrung out, with also convenient, soft, and warme Ligature, which is a great help to healing.

The third dreffing I would leave Arcens Linament, and betake me to the Artificiall Balme. which Balme I would apply warme, annoynting the parts about therewith : applying allo thereto fome good emollent, difcuffing, and anodine plaster, as namely Paracelfus plaster I hold chiefe; next that I hold Emp: Betonica described by Arceus ; then Diacalfiteos, minium, Gratia Dei, or Mellilote, any of which as thy diferention or ftore affords, will ferue. The reft of the Cure I referre to bee proceeded in with balme and plasters, as is faid, in ordinary forme : and if any loofe bones bee, remoue them; onely force none out before their time without great cause; if no bones be imagined, ftriue not to keepe the wound open, neither keepe any hard tents within the wound. Many by a cultome keepe tents to the bothome of the greefe fo 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 fooner you can heale the fafer. Many Surgeons also have a groffe cultome of arming tents, as they tearme it, with precipitated Mercurie, or other the like Caufficke medicines, and put them into wounds to mundifie, and also the better to digelt them,

as they imagine, but I may boldly affirme, that (as is faid) if neither teare of a Gangrene be, neither broken bones to be taken out, there is no caufe of any Caufficke medicines to be applyed for the curing of a new wound at no time. And I finde by practife plaine, that Caufficke medicaments within vlcers or fiftula'es haue no other vfe but to take away a callous fubftance commonly in them to alter the vitioufnes of the humor, and difpofe the greefe to a good healing, which healing after followeth chiefly by the benefit of nature, together with gentle and fanatiue applications, for (*fublata caufa tellitur effectus*) the caufe remoued, the effect ceafeth, and fo of wounds.

It is a fhamefull error of many foolifh Artifts ftill to be An admonition too bulie with Caufficke medicines : how apparent is it to Surgions. that they lame many thereby, let wife Doctors iudge. They will not fee a wound incarne and red, and good flefh to grow, but ftraight they flander it of pride, and call it proud flefh like their owne, and then muft at the faireft Precipitate or Variole burnt goe to worke, yea though the Patient bee lame for it, or at the leaft the greefe put backe againe. Truely the abufe of good Caufficke medicines bringeth much flander to the Arte of Surgery. In the cure of Ulcers & Fiftulaess, and elfe where, I haue noted downe my opinion of the true vie of Caufficke medicines, to which I refer the Reader.

If therefore wounds happen with Gunshot, which give no cause to feare a Gangrene, then begin the first dressing with Balme Artificial very hot applyed; the next dressing reasonable hott, and so to the end of the cure vsing Emplasters and Ligasures convenient.

Of Burnings.

BVrning by Gun-powder often times is incident in of burning by BArmes to Soldiors and others, which wanteth no Gunpowder. greeuous accidents; therefore be ready at all times with Necessary Rules remedies fit and effectuall to allwage them. And begin-for the Cure.

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ning thy worke with Lotions, (as namely either a fomentation made with oyle and water, or with a decoction of the feedes of Quinces, or of Mallowes, March-mallowes, Violets, and a little Purstaine feede) these and the like take away all the powder that flicketh in the flefh, for it hindereth the cure. And to allwage 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, vie Anodine Medicaments (as Ceratum refrigerans Galeni, populeon mixt with a third part of Vnguentum album, or a third part of Triapharmacon and Oyle of Roles, or Oyle of Eggs, or of Rofes mixt with the white of an egge, axungia porcina walhed in the inyce of Plantane, or the iuyce of Solanum, or in water : alfo the fat of ruffie bacon washed in Role water, or the like. Alfo a decoction of wine vineger lib. j. Litharge in powder 33, and gently fomenting the part therwith, taketh away all paines. But to perfect the cure, let good fanatiue medicines be applied, as the Vnguentum contra ignem in the Cheft fet downe, whole composition shall be manifested hereafter.

Observe 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 potions, 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.

icontropantie on Heufering ban ad tot

The:

The cure of Apostumes.

First what an Apostume is.



N Apoltume is a tumour compoled of three The Definition kindes of difeafes, as Anicen affirmeth, namely, of an Apostume. Intemperature, Incommoderation, and Solution of continuity, all gathered into one mag-

nitude : 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 leafure will not permit me now to write.

The times of Apollumes are also at large handled lear- The time of an nedly by Mr. Gale, Iohannes de Vigo, Ambrose a Paris, and Apostume are divers other good writers, and are noted to bee in number foure, as namely, Beginning, Augmentation, State and Declination.

The beginning of an Apoltume is noted to bee the what the begina first collection of humour, extraordinarily intruding into ning of an Apoany one part of the body, at which time with the Surge- fume is. ons care, the proceeding of the difeafe is eafily hindered, according to that olde poeticall verse, Principis obsta. G.c. Agood rule, The next time of an Apostume is the Augmentation, then the difease hath taken roote, and is not fo well to bee put backe, neither is it alwayes necessary nor fafe to attempt it : for it may be nature hath determined to fend it out, and this fecond degree or time of an Apoltume is fometimes knowne by heate, pulfation increafeth with a diffemper generally of the body, and an inclining to a feuor, especially if the Apollume bee hot, or have malignity therein : but the augmentation of colde apostumes have often no other fignes notable : but onely an appearance of increase, without

Of Apostnmes, and their cures.

What the flate of together. an Apofunce is, and the figues shereof.

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without any other diftemper of the bodie for a long time

The third time or degree, which is the flate or ripeneffe 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 allwaged, 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 foft, and if the apoltume lie deep by feeling, you thall alfo fentibly perceive whether their be perfection of maturation or no, alfo by depreffing the cutis a little with your finger.

Whin an Apo-Stume will Suppurate. Hypocrat. cap. 2. lib. 47.

Tagalt. Inftit.

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

> Durities longa pulsus dolor & calor anti Signant pus fieri : sed facto dicta remissa Sub digitis undans allescens pars & acuta.

The fourth time '

The declination of Apoflumes, I cannot fland to amof an Apoffume. plifie, but I referre you, as before, to Mr. Galles Institution of a Surgeon, as allo to Iohannes Vigo, and other good wris ters, for a more ample doctrine in that poynt, onely note that when the tomour or apoflume isripe, mine opinion is rather it be opened by a potentiall caufficke medicine, then by actual incition, when it may be as conveniently effected, and that for many good reasons, and one sufficient reason in mine opinion is, if you vie incition, you must needes put in tents, dollels or the like with medicines, to keep open the orifice, and alfo to enlarge it, which doing you flop the pallage of natures true enacuation twixt each dreffing,

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dreffing, offending the parts adiacent, and hinder the vnition of the difioyned parts, against conscience, detra-Aing good healing : yes, and thereby hazard diverseuill accidents to follow, as fiftulaes &c. from all which by cauflicke incilion you arefreed, and feare not at all the application of a convenient potentiall caufticke medicine in ductime and place, especially the impoltume 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 caulticke or corafiue medicine, neither doubt at all, that your work shall succeede otherwise then well, for nature will prouide remedie speedily, easily and fafely to heale your patient, prouided you be alfo carefull to vle your endeauour with good warme medicines duely applyed, and with also the vie of good ligature, which is one principall good helpe, good diet and other reasonable meanes likewise had, for I haue euer observed in my practife, that a hortumour in any outward part of the body, growing either by repletion, obstruction, feuor, or by the euill disposition of the bloud, for the most part : yea, even in pestilentiall and venemous feuers in good bodies, not being pockie nor too too olde, are eafily healed by any vnderstanding Artist, that can ioyne reafon and experiencetogether, many feuerallwaies, namely for one, if you perceiue a beginning, or gathering of humours together in any part of the bodie, confider what might be the caufe therof as neere as you can : if you finde it to bee fulnetse of the bodie, or coltiuenelle, you haue divers prefent remedies that way to flie vnto, viz. at the first make the patient a suppository, then gine him a glifter, if neede bee and a Laxatiue medicine, alfo according as you shall fee cause, regarding the quality & quantity of the humour abounding : but remember where the bodie is costiue, you were best to beginne, as is faid, with a fuppolitory firlt, and that having cauled one ftoole, proceede with a purge, if you fee further cause, or a glister, for ofrea onely one fuppositorie doth what you require, alfo good V3

Of Apostumes, and their Cures.

good fomentations that may by the pores of the skinne helpe to breath fome part of the matter, will do well, and fo the reft by discussing and mollifying medicines the eafier be cured. If the griefe beginne in the head or throat you may vie phlebotomy either vnder the tongue, on the forehead, or on the arme in the head veine, or median veine, but if you perceive that by empting the body artificially, and cooling the bloud with convenient medicines as also answerable slender diet, and opening a veine, that the collected peccant humors will not bee difcuffed nor put back, then may you proceede to attraction and fuppuration as you fee caufe ; for it were most groffe to feeke to detaine that which Nature hath refolued to call foorth : wherefore if you fee caufe to bring forward any Apollume, you may then confider by the quallity thereof what course to take, namely, by attractiues alteratiue or suppuratiue Medicines, as touching attractive medicines, good attractives at lea to be had are Gum Elemni of it felfe, fpread on lether, and applied; and Galbanum alfo is very good, prouided it be diffolued in wine, and not in vineger : Mellilot plaster will well bring forward an Apoftume hot or cold, and helpeth fuppuration : Common pitch is a good attractive: Burgundy pitch is alfo good : Of these the difcreet Surgeons Mate may vie the fittest in his diferetion, and if he defire violent attraction of any flothfull cold tumour, let him fet a large cupping glasse thereon. Maturatiues or alterative Medicines in the cheft and Ship to be had are very many, yea more then I can call to minde at this time, wherefore to be briefe, Emplastrum viachylon cum Gumis I put for the principall, for it is for that purpose only ; Paracelfus 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 Cataplaime warme and thicke applied supurateth best and easiest, viz. make a decoction of Althea roots or Line feeds, and the caufe being cold adde Fenigreeke a little to this decoction adde beane

Attractives.

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Maturatiues

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or barly meale, oyle of Camomill, Dill and Lillies of each a small quantitie, Dialthea a little, or Axungia porcina and apply it warme, and thift it twice in twentie foure houres. Or R flowers of Camomill mellilote and of Elders ana M.B., Wormewood, M.B., Althea roots brufed 3B, 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 Cataplaime adde oile of Camomill or Dill 3 iiij. Axungia porcina 3 ij. In want of some one of these flowers another for neede will serve, and if none of them were to bee had yet there is many other meaner helps to bring forward an Apollume, which time wil not now permit meeto rehearfe. When you have an intent to bring any tumor to fupuration, you mult neither purge nor bleede your Patient, neither appoint him a thinne diet. When you would an Apoflume should go backe, if it be aboue the nauill in the breaft, back, or head, then let your purging Medicines be fuch as purge downeward only, but if it be below the nauill, or in the armes, or legges, vomitiue Medicines do best, except some especiall hinderances, as Afthma or the like: And to those vies none are so effectuallas those which are of Mercury truely prepared, for that they do not only duly euacuate, but alfo diuert and draw backe the humours from the place offended which in truth is a great helpe to nature. Alfo bloud letting if occasion be, may be vied for diverting and mittigating a stubborne disease, but after the vie of Mercuriall purgesitisheld of many not to be good to open a vaine, of which opinion I am, without extraordinary reason wrge the contrary. And further if you intend to repell an Apoltume you may make vie of this following Cathaplaime of beane meale, or wheate meale boyled with water and vineger a conucnient quantity that it bee not ouer sharpe, adding a little Terebinthine and very warme apply it, with alfo good close ligature, and shift, renuing the medicine euery fixt or eight houres, but euer obserue asit is rehearfed, that to repelian Apostume sender diet with conuenient

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ent euacuation of the belly, and phlebothomie are as principalls to bevfed. Alfo a fafe Cataplasme to repell an Apollume in the beginning is, Re farina fabarum or beane flower and caffle fope, ana 3 j wine vineger as much as will suffice, boyle these one quarter of an hower together, and you may mixe a little water with the vineger for feare it breake the skinne, and apply it warme. Note further that to an Apoltume broken by a caufticke I commonly vfe no other thing then vnguentum bafilicum warme, from the first to the end of the cure, or my artificiall balme which I much rather commend vpon my long experience, except fome dreffings now and then I apply to it onely dry lint, and if nature be not beneficiall to incarne and helpe healing to my defire, I vie a gentle obstersiue medicines namely a little precipitate mixed with the faid bazilicum or elfe unguentum Agyptiacum very hot, but that onely for one dreffing at one time, and then to my former course againe for certaine daies together, namely, till the esker be fallen, and at the leaft three dreffings after , which if it give mee not good content of hope of amendment, then I proceede further one degree, namely, I vie for one dreifing of oleum snlphuris per campanam, or oleum Vitrioli, with which I onely touch the vlcer within: I alfo giue a purge, thereupon if the Patient be ftrong, 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 fiue or fixe daies further: but if then I fee it be still stubborne, I proceed to the next flep or degree, and craue helpe from my honest olde friend mercurie who if he faile me iudicioufly applied, then I confeile I am almost to feeke, but he neuerfailed mein my lifeif my Patient were not the caufe, the difeafe being by Arte curable. The mercuriall medicine I most vie in fuch cases is aqua benedicta, as is rehearsed in the cure of Fiftulaes and Vlcers.

If an Apoltume be opened by a causticke medicine the Apoltume of it felfe being concauous, I meane having a great hollownelle, going deepe this way or that way, strive you

Manager & Aller

Of Apostumes, and their cures.

you not at all, either with tents, plegents, or dor ffells to fill the faid concauitie, and to divide the parts afunder which defire vnition, but only dreffethou the outward or fuperficiall part with warme bazillicum, artificiall Balmeor the like convenient medicine, putting it a little within the entrance of the orifice of the apollume vpon a little lint on the end of thy Probe, vntill the first, fecond, and third dreffing after the opening be palt, and if thou have any of thy Cataplaime remaining with which thou didit ripen the Apollume, apply the fame very warme, if not, apply fome good Emplaster ouer it, annointing it with balme artificiall, and applying daily thereto a good Balmeor bazillicum warme, aud feare not if thou make thy applications warme, and vie good rowling and boulftring, which is a principall part of the healing, with likewife good diet and convenient evacuations of the belly where thou feelt caule, but thou shalt heale comfortably, only forget notif occasion be, that fometime thou make iniection into the concauitie of the Apoltume with fome fitting mundificatiue or obsterfiue medicament, namely, with thy ordinary Lotion it will doe well, but vie it warme, and charge it not often with it, nor at all except great caufe, yet vpon due occasion if an Apostume turne to a moist watry concauous vlcer, thou mail alfoadde to thy Lotion Agyptiacum, but be not too busie with such medicines. It may be also thou maist thinke how shall a good healing A caution. follow where the fore is not fearched, 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 eafed of the burthen of that vicious and offending humour which was the caule of the difeafe, it will at first feeme admirable to thee I know, but it is a diuine work, forth the forwith intends healing without thy help, first by little and little daily fpuing out the dregs of the difease, and euer as fast within by Gods prouidence incarning new flesh as the quitture is outwardly auoided, not by meanes of thy incarnatiues I must tell thee,

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thee, whereon I aduife thee not to truft, albeit they be neuer fo good : experience will fbew thee that oblerfive medicines, namely, fuch as haue vertue to fcower and exciccate or drie, leauing a certaine flipticknetse 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 vfe of them the vlcer will foon incarne, onely with the vse of drie lint farremore then with any vnctious Medicine what focuer, yea though it be Vnguentum aureum, for it is an infallible rule in that diuine ministry of healing, who fo can drie well can heale well : if thou with thy ouer many caustickes following each other, or by keeping the parts too much afunder hinder it not, for too much exciccation or drying will make worke, not heale, which beware of.

Some Artifts haue in vfe long hard tents, this way, that way, or dorfells, or plegents for perpetuall keeping open an Apoftume, for, fay they; I will fee a good ground, and a found healing at the bottome ere I take out my tents and then I will beginne to fhorten them : I fay fuch are vnworthy Snrgeons, yet I deny not an Apoftume or vlcer may be in fuch a part of the body, as namely in the corner of the eye, or in *ano*, which in no wife will fafely fuffer healing, till fome caufficke medicine haue well fearched, yea, and as it were feared the bottome, which once effected, go on, in the name of God, with your precedent courfes of healing againe, namely with all foft, gentle, and fpeedy healing meanes, as before faid.

For Natura naturans naturat omnia, and marke it, for by this reason an old wife oftentimes exceedeth a great Artilt in healing, for the wreftleth not with Nature as great mafters doe, and Nature pleased with her milde and fimple meanes is appeased, and by divine providence the difease often easily made whole : for I know it for a truth, and by too much experience of my owne, as an eye witness in other mens worke I have seen as great harme done, and as groffe

An infallable rule. 154

An old wifes medicament better then an vnwife Artifts medicine.

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groffe faults committed by vnworthy Surgeons for want of mature iudgement in ouer-doing, as by olde wives, or fooles in vnder-doing. For many Surgeons neuer thinke they have plaied the workmen till indeed they have made Errors in Surworke : Some by error for want of judgement, others for geons worthy base lucres fake, prolonging and agrauating with things reprosse. not only contrary, but alfo dangerous to nature oftentimes, laying bare the bones, and by cauffickes fowling them with their medicines when there is no neede, prefaging wickedly before hand vpon vnperfect grounds, bones to be fowle when to their fhames they have made them fo themselues, as is laid, either for want of honeftie, or want of true iudgement to confider : 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 fleight Medicines they might oftentimes effect farre more then they do, or can. Nam natura paucis contenta, & sublatà causà tollitur effectus : Nature is content with small things, and the causeremoued the accidents or effects cease. I with rather a Surgeon fhould heale gently, yea though hee should hazard the breaking out againe of the griefe, which will not eafily be if he rationally follow the precedent methode, rather then by keeping the griefe open too long giue occasion of deformitie, lamenesse, 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 confcience, if they feared God, they should not dare to doe. These and the like grosse errors, vnexcusable before God and man, have brought to the Arte a scandall, & a sensible feeling of want vpon many vertuous profetiours hereof, fo that the guilty and vnguiltie are cenfured both alike by the common fort, and the one imarteth for the others fault. But those which for gaine or otherwise will prolong the health of those that commit their liues, or limmes their mercy, or approve of it, the Lord pay them tenfold, X 2

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tennefold as much to their fhame : and fo for this time I conclude concerning Apoftumes, onely let mee giue thee this caucat concerning Precipitate mercurie, or of any kinde of Turbith minerall, vie them not much neere any bare bones without very great iudgement, for they will blacke the bones, neither vie any of them in any new wounds as is faid, for if you doe they are very apt to procure lamenelle, or fhrinking of the finewes. All fwift healing in new wounds I efteeme beft, yea without any causticke medicines at all if it may bee, which the Artiff neede not doubt of where neither bones broken, nor other just thing of like kinde hindereth the worke. Thus much concerning the generall curing of tumours, to the praise of GOD.

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reaction for and the one fratters for the other is and the one fratters for the other is and the best for gate or otherwise will protect the best her thefe that commit their field, for finance of it, the Lord, nay then

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Of the Cure of Vlcers and Fiftulaes.

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ent a strict drying dyet, where I fee good caufe, not otherwife. But remember this principall rule, that what day he either taketh vomiting, purging, or fweating medicine, that the fame day he forbeare 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 whole dyet is of bad nourifhment, as too often times it happeneth amongst poore Seafaring men in long voyages. Thus vling this afore-prefcribed medicine iudiciouly, you may cure any pockie Fistula, or inveterated Vlcer whatloeuer, 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 aforefaid Aqua benedicta, and give the party one dofe of your Aquilla vite, and without question you shall cure it afterwards as if it were a greene wound, but remember it will caufe Virga to tumifie sometimes much, but be not afraid, for by thevie of Lotions mixed with Plantane or faire water dayly warme, and caft it in twixt Glans and Prepatium, 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 ftrong medicine, and procureth fome paine; but not in warts, yet honeft it is and fure, for it will not faile : and if once you acquaint your felues with the parts thereof, you will never afterward vie Troffis of minium nor Mercury sublimate againe, and yet let mee speake my Conscience, both Troffis of minium and Mercury fublimate are worthy Medicines, their whole force and healing vertue being indeed onely the quicke-filuer and fpirits of falt, and no other thing, whole companion was neuer found out for healing and killing. I haue often cured desperate Vlcers, yea and Fistulaes with Troffis of Minium. as also fometimes with onely a Tent made of Mercury sublimated, and put into the orifice. And how excellent it is inwardly given being truly prepared, I will for this time forbeare to speake, till I write of the preparation of fuch medicines, as I have here divulged vnder ftrange

strange names. Thus much of Vlcers and Fistulaes to God his glory, and the helpe of the weaker fort of young Practitioners.

The Cure of Fractures.



HE first Intention in the Cure of Fractures is performed by reftoring the bones difioyned, and taking away any loofe peeces or fragments of bones if anybe.

The fecond 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 The first worke 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 fodaine, and yet with as much force as is requifite, namely till the Artift flanding by with his hands vpon the greefe, perceiue heeis able to fet the ends of the bones into their place; which done, it is then required that they be kept fo.

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 an willing to impart to young Artifts my practife in curing

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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 difease and disquiet to my patient, yea though I have two affistants to holde the member, to come so oft about the member as to rowle it, and endangereth much the dissource of the boanes againe, and cause the paine.

And it is manifest that in simple fractures, the placing of the boanes and keeping them fo, is the most worke of the cure, and nothing cureth a fractured boane fo much as reft : wherefore when a bone is newly placed, and fhall be troubled much with lifting and rowling, it cannot bat hinder vnition, and procure some accidents offensiue, my forme of ligatures in fractures is to have next the member one foure double clowt in length, I meane aboue and below the fracture, fo long that the ends of the fplints I intend to vfe, may have a refting place on the clowr. And if I intend to cure the patient by a Lixiuium or otherwife, I apply it on this fayd clowt, the medicine appoynting it to be next to thee greefe, and have another like great cloth to come ouer that againe vnder the fplints, which being close and fmooth brought about the member, I then put vnder the fiilt fplint of a good bredth and length well armed with towe, and vnder that I lay foure or fiue ftrong tapes, then I time one of the faid tapes gently, and thruft all the reft of the splints vnder the same tape, namely, fo many as may compasse the fractured member, lying clofe, but with fome fmall diffance, that they touch not one another, then I tie the reft of the tapes, drawing them clofe, till the party fenfibly feele them to beare in all places, the fplints I appoynt commonly fo long as the member can beare without galling or troubling the next ioynt, these things so done, if either the legge or thigh be fracturep, I appoynt him iunckes, as fome : earme them, namely, bents rowled vp in canuaffeto come aboue his knee, and downe to the foot, yeathough onely the legge be fra-Aured, it is fit these bundles of lunckes bee as thicke and thicker

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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 occalion be, to thele iunckes alfo a cloth may bee faltened, which may be brought vnder the foot to flay the fame vp, to his due polition, which is a great eafe to the patient, and beleeue me, if once you be but perfect in this forme of ligature, you will neuer defire a rowler in the cure of a fracture : I vied rowlers till I faw the fufficiency of this forme of binding, which now I defire not to change.

The third intention is the cure, wherein the inward and outward courfe of the cure is to be confidered of. Touching the regiment of the body : concerning fuftenance at fea, the patient neede to haueit no thinner then the Saylers ordinary, and touching medicine let him haue the benefit of nature, that is onely cuery day, or the fecond day, a naturall floole or an artificiall helpe by fuppolitories or glisters, if there bee great necessity not otherwise, and if a feuor happen, giue him a Barley water, with a little oyle of Vitrioll therein, and if that helpe not, open a veine on the contrary fide, and if you feare putrifaction of humors, giue him alittle Diatefferon Trekell or Mithridate, or the like, if he complaine much of the paine, fearch the caufe, namely, fee that the ends of the bones lie right, and that the fplints gall him not, also that there be no wrinckles in the clouts applyed, and that it bee not too hard or too foft bound, all these things duely confidered. The medicines I vie are as followeth, either I vie a reftrictiue fluffe, which is as followeth.

The ingredients of a refiritive the manner of composingite

The cure.

R. Bole Ziij. Aluminis. Thu ana. 38. Radix Confolida in powder 3-ij. Lapis Zabulofus Ziß.

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

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to make this medicine into the forme of a cataplaime, and in warn of egges vie water and veneger onely fo much as is needefull, allo if comfry rootes bee not to bee had or Thus; They may bee forborne, you may in their places for neede, though not fo very well vie beane-meale, I have done very well many times, onely with Allum, Bole, Egges, water and vineger, though Beane flower is allo very good or wheat flower, and as for the medicine called Lapis Zabulofus heere recited it is a medicine found out in the Arch Duke of Brandenburg his Country, named in the Germane Tongue, Beine broucke, which in our language is a broken bone, being in fubstance like chalke and in forme like a bone, fome peeces like ribs, other like fingers, others like legges or armes, bones of nature fo growing. This medicine I know to excell many other in healing fractures both outwardly applyed in cataplasmes, and inwardly taken daily the quantity of 3-j. in fine powder in wine, beere, or water, the patient falling for two houres after the taking thereof. In great fractures the Germane Surgions, prefcribe this aforefaid medicine daily to be taken for twenty foure dayes, if they fee caufe fo long to vie it : The other forme of application to fractures vied and commendable, as I have fayd, and from which I am digreffed is a good ftrong Lixiuium made with fresh water & afhes till it be flippery, namely, let the water be made feething hot crethe allies be put in, adding if they be ready, or may be had in the shippe these hearbes following : St. Iohns wort, womewood, centaury, rolemary, fage, chamomile & mellilote flowers, or at the least fome of them, « alfo you may adde Lupines therto: but howfoeuer though there be no hearbes : adde falt good flore when it is clee. red, but not before, and then though you have neither hearbes nor lupines, it will bee of good force, for it is the falt vegetable in the ashes, which is the belt healer, the next best is the minerall or fea-falt, wet the clowt rehearsed therin, and wring it out hard, and apply it to fmoothe, close and hot about the member binding it fo vp, this fecond forme Y 2

formeis esteemed of most Artists the fafer, for anoyding Gangrenes, which fractures are much incident vnto, by realon of great flore of contused bloud gathered, that can hardly be discussed on the inflant, which thereby causeth obstructions, whereupon followeth inflammation and paine, and consequently a Gangrene, and furely the first is not inferiour to this: for by the meanes of the Allum and the viniger it fwageth paine, tempereth well the parts, and yet repelleth and discussed to it, it fortifieth mightily the member, by flicking close and hard to it, I haue vsed it long without repentance, and the other formetime : but for that it helpeth of it felfe to keepe the member to his flraightness.

Observations for the cure of the great bone of the leg fra-Etured. 164

How to know when the ends of the bones miet aright.

These things ready, I meane the one or the other form, fuppose then the greater foffill or bone of the legge were fractured, make your extention (as is fayd) that both ends of the bones meete together, namely, let one firong man take the one end of the fractured limbe, and another the other end, thy felte flanding free, and let them draw out the member, directly when thou art ready, & not before, neitherby iumps, but leafurely and together, likewife if they beare their hands too high or too low in drawing, they caufe great paine to the patient, and likewife caufe 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 caled, for it is a fure rule, if the paine abate not, all is not well : The bone, I fay, first well reduced, bring your stuffe formerly rehearfed & putit vnder the legge, the parties that extended, not forfaking their holde, and lap it about fmooth and clofe as you can, without wrinckles, lumps or feames, and that the ends may alfo foulde fmoothe one ouer the other, wrapping it doubleand fmooth oner the fhinne bone, the caute why I vie to foulde it double on the fhinne bone, leauing it there to be opened, is that if it chance there be a wound ita

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it may be dreffed the better without vndoing all:but if no wound be, yet it fortifieth the bone the better, by the doubleneffe therof being (moth, then lay your next cloth broder and longer then the first, ouer the first, beeing wet in water and vineger if there bee caufe, and wrung out. Let the fecond cloth, I fay, as alfo the first, bee longer then the fplints, that the ends of the fplints may rell thereon, and not on the bare iegge, placing the splints in their order about the legge, till you have compatied the legge, laying them (asisfaid) not too close together, that they ride not one ouer another, neither touch each other, nor come vpon theioynts, remembring to put all your tapes vnder together, in number it were fit to haue fiue or fix, namely, two on each end, and two for the middeft: Allo if there be a wound, you must fo order the matter, that you may daily apply to the wound necessary medieines, whereas otherwife if there be no great caufe, namely, through much paine or the like, you may well forbeare fix daies, or tenne daies, prouided that you fee the legge bee ftraight and well laid in an euen polition or forme, and that it may lie the fafer, it were good to bee prouided with the aforefaid 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 fhould be wound and wrapped in canualfer and bound to each fide of the legge artificially with foure long tapes, and at fea you may take for a hift two billets bumbalted with aiittle Ocum wrapt in an olde peece of a faile. Further in fractures with a wound, if you vie vn ctions and liquid things, as oyles ; you hazard putrifaction of the bone and apoflumation : hecrein alfo great care must be had, that the legge must be kept fleddy, for disquiet therein will bring apollumation, and mortification, and death alfo, beware likewife of ouer hard binding, for it bringeth altonishment and hazard of a sudden Gangrene and death, it is a generall fault of divers young Surgeons, for many thinke they have never bound hard enough, and yet too loofe is a fault, but eafily may bee amended, Y 3

amended, and I aduife thee to looke to thy patient often, that his fplints gall him not, for that bringeth want ofrest, and divers evill 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 hane a ftoole, houlding theserules with little trouble, it is not hard for him that will be carefull to cure any fracture, for indeed as is mentioned, the bone reftored, reft is the chiefest medicine to cure a fracturei, yea it will effect it almost without medicine, the member being onely artificiallie bound, and fplinted orderly; the inward medicines for fractures I fay need not to be many, onely give him in beere daily, in wine or water as thy difcretion shall mouethee, the mentioned Lapis Zabulo (us Z-j. for tenne or fourteene daies if you haueit : sometimes if need so require, a lenitiue glifler may bee given : Alfo the best locall medicine to wounds with fractures in my opinion is good Bazillicum or Arcens Linament being warme applied thereto fometimes as you fee caufe ; Alfo you may vie an Absterfiue or Corroding medicine, as Allumen combufium : Agyptiacum, Vng. mixtum, or the like : but in these things reason mult inftruct the Artift more then precepts, but beware of theouer-vie of fharpe 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 alfo, who apply tharpe medicines often without true iudgement, not onely in fractures, but also otherwife, and as for fimple fractures I have cured them often with onely a feare cloth made of waxe 3iij rofin and sheepes suct, of each 3j. dipping a course canvas therein in forme of a sparrowdrope, and so have 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 apt ligature, as I have recited in the manner of the application of the Cataplaime: This in fractures of the armes is as good as any, and from the first to the last this fearecloth

An Anema.

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A Special Can-

Of Diflocations, and their Cures. 167

cloth may be vied. Remember alfo in any fracture that if eyther by the galling of the fplints or heate, or other diftemperature of any medicine or itching humour excoria- for heat or excotion or heate appeare, that you apply next the greefe for riatio of the mem one dreffing Ung. Triapharmacon fpred vpon paper, and ber fractured. your other vfuall medicine thereon, and it will become well with one onely dreffing, being taken ere it grow too farre.

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

Concerning the Cure of Diflocations.

Lthough I have seene divers skilfull men performe good workes in Diflocations, and read somewhat, and for many yeeres practifed my felfe, yet know it not in this part of Chyrurge-

rie by words to describe ought to the purpose, which might ferue at all allayes, or vpon all occasions for the helpe of young men, for as much as fo many vnexfpected obferuations and strange occurrents happen in and by Dislocations, as would aske much time to explane or but to touch, all yet in a word or two, I hold it not whit to aduife them forwhat concerning Luxions or Diflocations, First therefore it is a generall rule that you mult vie extention almolt to every Diflocation, especially in the fhoulder, in the huckle bone, in the knee, and in the ankle, for I may boldly fay, where the Artift 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

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dance of vicious or vifcous humors it haue extended it felfe. Extention is therefore to be carefully made, I meane as I have faid in the cure of fractures, not on the todaine, nor too forcible, but yet with ftrong and fteddy 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 vied therein, for too farre extent weaketh much, if not ouerthroweth the true vse of the member, euen fo too little extended, produceth not the effect intended, I meane it ferueth not to reftore the bone diflocated, euen fo the extendors raifing their hands too high, or putting them downe too low, hinder the comming of the bone into his due place, and caufe greater paine to the party : furthermore it were good when the Artift taketh view of a member diflocated, that the other fide alfo were vncouered, that thereby the true forme and fituation of the difeafed 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 cloow be out of ioynt, let the Artift make bare the other fidealfo, for that there is often great difference in the naturall proportion or scituation of mens loynts, having therefore first viewed, and then also fufficiently extended, and the forme of the other fidealfo is as faide, feene and kept in remembrance : then feeke to reduce or place the boneby those meanes, which in thy ownereason seeme fittelt confidering and well weighing the naturall forme, and true scituation of the diflocated bone, as is faid, which in truth is vnpoffible in my opinion by letters to explane: this done, for the most part, yea and in very great diflocations, the worke thou maist account is done, and the feare at an end.

My felfe haue fet diuers flrong mens bones, I meane the fhoulder bones chiefly, which haue done labour the fame day, neuerthelefle I denie not but it is good and very necetlary to apply to the place things difcuffing, anodine, and mollificatine as reafon fhall induce the Artifly vnto

Certaine rules for the cure of diflocations.

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vnto, you may therefore annoint the place with oyle of Rofes, Camomill, Dill, or Earth-wormes as you shall fee freelt, and apply thereon a Plaster of Mininm diacalfiteos, Paracelsus platter or the like, and fo rowle and binde vp themember artificially as shall be most fit, and let it hauerest : if thou feare further accidents thou maist alfo giue the partie fome laxatiue. The bone I haue faid is neuer truely reftored, if the paine continue. Againe if there be a great tumour in the place diflocated, fo that thou canft not therefore well reduce the bone, then maift thou lay the party to reft, and the member alfo to as good reft as thou canft, and by things mollifying, and difcuffing feeke to alfwage the tumor, in which calea good Lixinin described in the cure of fractures were good to foment it withall, or a good Cataplasme made of Oate meale and linfeeds boiled in beere or water, with a little oyle of Elders would doevery well, but take this for a rule that if thou be called to any diflocation where a tumour is, if it bebut a tumour of one, or two, or three daies gathering, attempt thy belt to reduce the bone notwithstanding the tumour : for if by extention and paines taken thou canft get the bone into his place, thou needest not to feare the rumor, for it wil quickly begone: wheras on the other fide if by thy other applications thou canft not in reafonable time diffolue the tumor, a callow or ftrange fubftance may be fixed in the place that thou shalt never be able to diffolue, also the ligaments and heads of the Musckles will be growne hard and fhrunke, and thou maift feare a lamenes The fooner exand withering will follow to that member : wherfore with tention is a carefull confideration seeke to reduce any bone, the wrought the fooner the better.

I vse an inftrument in diflocations which I learned the practife of in *Polonia* whilft I liued there, which I call by the name of a Commander, for that rightly placed and vsed it will furely command; and I haue vsed that one felfe fame inftrument to the shoulder, wrist, knuckel bone, knee, and ankell with good successe. I may truely fay I Z haue

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haue fet with it aboue 100 ioynts at times, and neuer once repented mee of the vie thereof : and to fhew thee how I vleit marke a little my words, for I mult be briefe : If I fee iuft caufe of the vfe thereof and that with my owne hands and fome others to helpe me I cannot without much paine to my Patient bring the diflocated bone to his feat, if this diflocation I fay be in his foulder I place the butten of the instrument being fomewhat flatte on both fidesi, not round, iuft into the arm-pit, or hollow place, I meane vnder the vpper round end of the adjutory boane, or betwixt the faid 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 diuerlities of lengths of limmes to bee extended, this ginne hauing a refting place for to ftay it to the pinne recited, and an other for to take hold of the end of a foft towell to be tied about the wreft of the diflocated arme, which wrift bound about, and the lower part of the towell, or fome ftrong lether, band, or coard, fastned to the faid towell, alfo faltned to the vpper part or teeth of the Iron inftrument, let then fome garter alfo bee gently tied about the party his arme, betwixt the elbow and the wrift to flay the arme to the inftrument. It were also good that the inftrument, I meane the wooden Commander, were just 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 difeated fland in that order, or fo vnder fet the inftrument that it may fall out fo: and vnderstandfurther that the party for any bone of the arme diflocated must be standing whilst it is placing. And for the thigh, knee, or ankell lying. Hauing placed, tied, and fasted the parts toge her, as is faid, let one for thee ftoope to turne the extending inftrument, and turne it gently till all bee reafonable fliffe, the Commander ftan-

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ding vpright close by the Patient his legge : and let fome one ftrong man stand on the other fiide of the Patient, with his armes about the Patient his necke to keepehim vpright, to the busines: these things ordered as is faid, with thy owne hands feeke to reduce the bone : I haue often found when I have extended but to a juft length, the bone hath of it felfe returned to his place, thou wilt wonder at the facility thereof, if thou proceede orderly, I nor no man elle can teach thee by written words halfe fo well, as by practife, which once vlingit, thou wilt finde it out.

And when thou wilt vie 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 fo placed lying that his huckell bone, thigh and legge must hange ouer the beddes feete free from the bedde, or fo laid on a table that all those parts may beefree, and his legge below the knee must be gently bound to the Commander, as is faid of the arme : In all this worke neat ligature, true extent ion & a carefull industrious hand must performe the bufines, and practife must be the meane, for my felfe I have no time to amplifie further, this which is faid is pra-. Clife, for the which if thou finde profit

by it, giue God the praife,

int & equip and Of Difmembring or Amputation.



Mputation or Difmembring is the molt lamentable part of chirurgery, it were therfore the honour of a Surgeon neuer to vie difmembring at all if it were possible for him to heale all hee

vndertooke; but neceffitie hath no law : the Patient will declare Z 2

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Certaine rules before the worke to be practifed of the Patient.

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

declare in his naturall defire to line, the comfort that hee hath by it. Since therefore it is of necellary vie, let the difcreet Surgeon be euer prepared for it, and to that end let the Difmembring faw be alwaies in a readineffe, well filed, and cleane kept in oyly clouts to faue it from ruft, let it alfo haue two blades wel filed ere you put it into your chelt, for that one tooth in a faw may breake. If you be confirained to vse your Saw, let first your Patient be well informed of the eminent danger of death by the vie thereof; profcribehim no certainety of life, and let the worke bee done with his owne free will, and requeft; and not otherwife. Let him prepare his foule as a ready facrifice to the Lord by earnest praiers, crauing mercie and helpe vnfainedly: and forget thou not allo thy dutie in that kinde, to craue mercie and help from the Almighty, and that heartily. For it is no fmall prefumption to Difmember the Image of God. This done, have thy other inftruments ready, namely, a good Difmembring-knife, a fmall incifion-knife, two great fquare flitching needles armed with very ftrong thred waxed, which fome vfe, but may alfo be forborn,& one needle alfo and thred of the ordinarie fort to low rowlers: likwife have ready long clouts, leffer clouts plegents of tow greater & smaller, dortfels, and buttons of tow, three broad ftrong rowlers or foure, of foure yards long each, with alfo a forme conucnient for to place the Patient on, with a large boule and fome afhes therein to receiue the bloud, let it be fet vnder the end of the forme, then wet your clouts, I meane your beds or boulfters in water & vineger, and wring them out hard, which done, make ready your medicine, I meane your refirictiue pouders of both forts : haue also ready ftrong wine vineger, or other good vineger, and the white and yolke of an egge together mixt if it may well be had, or elfe vineger only, spread your plegents ready with the restrictive stuffe or cataplaime following, haue ready the ftronger reftrictiue powder mentioned, namely, your ordinarie restrictiue 3 j. and of burn'd allome 3 j. Vitrioll burn'd and of

of Difmembring or Amputation.

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of Precipitate of each 3 jfs, all these mixed together : This mixture I haue termed the ftrong reffrictiue powder, for that it forcibly reftraineth Fluxes, and maketh an Eskar: haueready allo one plegent made no bigger then the end of the member ; let it be fpred with this recited ftrong Restrictive, mixed with an egge and a little vineger, which done, ftrew it thicke with fome of the faid ftronger powder mentioned, having another plegent ready, broder then the former spred with the ordinary restrictive mentioned and mixed with an egge as the former : alfo, take of the bottons of towe fome foure or fiue, wet them in the strong restrictive to be laid on the great ends of the Vaines and Arteries when they are abfized : This done and ready, place the patient on the mentioned forme with one ftrong man fet behind him, and another to fland before him, bellriding his thigh closeto his body, compassing ftrongly with both his hands the member which is to bee taken off, and holding it exceeding falt fome two fingers aboue the place where you intend to take it away, and let another hold vp his foote. It were not amiffe alfoto haue ready a fwines bladder which hath beene fomewhat wette and dried off againe : which after the fluffes the first bed and first long rowler, is to be put ouer the member and to rowle it againe. All thesenecessaries as is faid madeready 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 allo being ready, and having hold on the member one aboue, another below, & alfo one fitting behind, as is faide on whom the patient may leane backward, and reft on: then take your difmembring knife, and with a fleddy hand and good speed, cut off flesh, linewes and all, to the bone round about the member, which done, take a smaller incilion knife and divide the panickle called the periofteon, from the bone, it is a tough thin skinne, couering all the bones of the body, also thrust your faid incision knife bes swixt your follels or bones, cutting away whatfocuer is 10

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Of Difmembring and Amputation.

The vse of the S.twe. 174

The manner of flitching the flumpe. to be found there with like expedition : the party that holdeth the vpper part of the legge with all his frength, griping the member together to keepe in the fpirits & bloud: It were also very good that the faide party holding the member, the fielh and linewes being curafunder, fhould immediately draw of frip vpward the fleft to much as he could, keeping his hold, that thereby the Sawe may come fo much the neerer, which would occalion a quicker and better healing, the flefh being thereby made longer then the end of the bone: then if you approve of that course of flitching, as fome good men doe take the 2. frong fquare needle and threds mentioned, & prefently after the member istaken away, flitch the skin through on the one fide, and idl ouer on the other fide, and with the other needle doe likewife as it were croffe ouer the member the other way, and draw the faid threds fo close as you thinke conuenient, the better to flop and choake the great Veynes and Arteries, then tye them falt, and prefently put but tons to the heads of the veines and Arteries, then apply the reftrictive Plegents together, the leffer fpred with the ftrong reftrictive lying on the broder, fored with the ordinary fluffe: this broder plegent must come at the least three fingers ouer the flumpe, and a linnen bed with them prefently following, laying a flat hand close on the end of the ftumpe, and holding it fo till an other ftanding by draw vp the faid plegents with the faid bed fmooth and clofe : then let a third man go on with the rowling, till the first rowler bespent; 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 felfe haue vied it and found it good, but your rowling must be very Artificiall in fuch a cafe, or all will not ferue, for it exceedeth all medicines. And there is a fecond great care to be had in the houlder that he hold well; alforemember euer to keepe a hand to the end of the flump, thrufting vp themedicines clole, and keeping them fo, excepting ever as the rowler paffeth by to make way warily for it, and flay it againe, and euer. where

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where you fee the bloud fpringing out, there lay a flender dorfell of towe, and rowle oueriragaine, continuing rowling till the bloud appeare no more: The first dreffing being ended, lay the party to bed with the ftumpe high, and a pillow vnder it, appoint him a flender diet, namely no fleth : let him haue a comfortable Caudle for the first, if you fee him weak; and afterwards Broths and Pannadons and light things, and in fmall quantity. It shall not bee amitle to deferre the fecond dreffing at the leaft foure daies, or longer, onely visit the patient daily and eafe or take away fome one rowler, as you shall fee caufe : Moreouer, in difmembring the legge, you are to vnderstand that though the foote onely be corrupted, it is best to take off the legge fome foure inches below the lower end of the rotule, or round bone of the knee, the paine is all one, and it is molt profitable to the patient, for a long ftumpe were but troublefome. This worke of difmembring is best to be done in the morning, doe it not willingly the figne 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 fafe & good of his owne practife : and Mafter Ruchard Wood a worthy Father in Chirurgery confetteth the fame in fmall ioynts Acaution. to be good, but not in the knee. Note alfo it is conuenient if the occasion of difmembring grow by reason of a Grangrene the body of the party and fpirits not walled before with long ficknes, to lergo fome reafonable quantity of bloud in difmembring, becaufeit is supposed to be vemous, but in a spent weak body, who hath had a long pining dilease, preserve his bloud and spirits as carefull as if they were thine owne, and yet remembring this one rule, which all the London Holpitall Surgeons holde, there is more hope in a weake fpent body, then in a full body : note further, that if the legge betaken off about the knee, there is the more danger, allo there is great care to be had to the great usine and artery, namely that thou take them vp, and pierce them through, and make firong ligature about

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The composition M. Galles Vnguent, and good to vscit.

bout them, which mult befpeedily done, if thou canft do it: but at first I feare thou wilt mille, yet be not discouraged, not fland too long to feeke them, but goe on with like hope : Allo if the occalion of difmembring proceede of a Gangrene, by reafon of an inward caufe, it were requifite to take the member off foure fingers about the Gangrene at the least, if the member will beare it, and let the patient haue fome cordiall potion : furthermore in difmembring, where there bee two bones, as namely in the legge, it is not amille to fet the faw first on the outward part of the legge, that both the bones might bee cut at once, for the leffe thou fhair thake the member, the better and the more ease to the patient: moreouer concerning the fecond dreffing, M'. Galle teacheth this vnguent following, if occasion be, as a good remedy to fwage paineand caufe the skarre to fall, but for my part, except paine did caufe mee, I should neuer respect the hasting of the esker to fall, for I am of opinion, as I haue fayd in other places, that it is friuolous to halten the fall of any esker whatfoeuer, which esker was forced by caufficke medicines, and yet I deny not this or the like vnguent may be found to bee of good vfe, to fwage paine, therefore I haue fet it downe, and it is as followeth, R. Terebint hine Zij Butyrirecentis Zilij. Cera Ziß. Vng. Populeon lib. 6. melt thele 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 little oyle of roles, Vng. Bafilicum or Arcens Linament are likewife good remedies, thereft of the cure differeth little from the ordinary cure of vlcers, onely a great care mult be had that all your dreffings be warme, and keepethe colde from the end of the flump as much as you can, and cheefely from the end of the bones, to which purpole warme oyle of rofes daily applied on the ends thereof, will do well, further to foment it with a good Lixiuium, wherein is ftrong wine, is good after fome foureteene daies, fometimes alfo it will doe

The Preface.

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doe well to make one drefling with Aqua vita, wherein a flupehot wrung out of the fame, may be warme applyed to the greefe, and then warme clothes and conuenient rowlings, and fometimes also one drefling with dry lint, or of foit tow is likewise good, and fometimes vngnentum mixtum, viz. Basilicum & Agyptiacum ana. partes aqual.

The defensative cataplasme or stuffe often mentioned, The composition is made of the ordinary refirictive powder prefcribed in of the catathe cheft, mixed with the white of an egge and wine vineger: the strongest refirictive of all is already set downe, but in ordinary fluxes in wounds Bole may ferue very well. Thus much for this time touching difmembring, being according to mine own e practife.



Of the Scuruy called in Latine Scorbutum.

The Preface.



His lamentable disease, which hath so long and so Mailners most fiercely affailed Saylers and sea-men of all sorts subject to the more then Land-men. It is strange in so many Scuruy. ages past, that no one Surgeon of our country

men, bath out of bis experience taken in band fincerely to set downe to posterities, the true causes, signes and cure therof, neither left any instructions, caucats or experiences for the preuention or cure of the same, yet it may be some may say the cure thereof is common, and wee have in our owne countrey beere many excellent remedies generally knowen, as namely Scuruy grasse, horse reddish rootes, Nasturia Aquatica, Worme-wood, Sorrell, and many other good meanes, the truth A a

The causes of the Scuruy.

is wee have so, but marke how farrethey extend only to the cure of those which lune at home, or else it may bee sayd, they also helpe fome feamen returned from farre, who by the onely naturall difortion of the fresh aire & amendment of dict, nature ber felfe in effect dot b the cure without other helps, as daily it is seen. Thist bing therefore being jo, what should I spend my time

inteaching that method, or those medicines to the Surgeons Mate, which will not bee had at sea, nesther if they could bee bad, will suffice for the cure therof, where the diseafer aigneth fiercely.

This Treatife most concerneth fea men.

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Having therefore very small time, I must constraine my felfe to goe breefely to the businesse in hand, namely to enforme the Surgeons mate bow hee should demeane himselfe to comfort his patients at sea in that most dangerous disease, nether will I beere strine to give the curious Reader other content then this, that if bee like st not, let him amend it himselfe, which I fould heartily reioyce to see any good man doe, knowing mine owne weaknesse. A learned Treatise besits not my pen, and to declare those good medicines, which cannot bee had at Sea, is but time loft.

What the difease called the Scuruy is.

mature thereof.

He Scuruy is a difease of the spleene, whereby it is Schruy, and the . I fometimes wholly ftopped, fometimes onely diffempered, fometimes alfo appearing with hard fcyrros, fwellings, beginning and fhewing themfelues in diuers parts of the body, but more particularly on the thighes and legges, cauling them to feeme of a leady colour, the fharpnetfe of which infectious humor oft offendeth the mouth and gummes of the difeafed, and caufeth the fielh thereof torotend ftinke.

od Tur-wood, Served, and anny ether good meaners increach

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. The causes of the Schruy.

The names of the difease.

"He Scuruy called of some Cachezia universalis, of 0- The divers appel-L ther Sceletyrbe, & of fome Stomacacen, it is a chronicall lations thereof. difease, not simple but compound of many other difeases.

The causes of the disease.

LIrft the difease comes, as is fayd, by obftructions of the I fpleene, and by the thickneffe of the humour, not the multitude.

Some iudicious writers doe affirme this ficknetle to come by the multitude of melancholike humors gathered in Vena Porta, by which, it is fayd, the milt doth draw vnto it melancholly humours, and fo transporteth it from the miltinto the ventricle,

But truely the causes of this difease are so infinite and vnfearchable, as they farre palle my capacity to fearch them allout, fometimes wee finde this difeafe proceedeth to feamen onely, through long being at fea without touch of land, as it is icene in East India voyages, our men haue Aire and fresh it betwixt England, and the Cape de bon fperance, as they food helpeth well terme it,& at their comming on land there they prefently this difeafein grow ftrong againe, & are by the very fresh ayre and fresh Sea-men. food cured withoutmuch other helpe. And likewife twixt the Cape and the Indies, they are touched with it againe, and as aforefayd the fresh aire of that land, the next they come on and good diet together, cureth them with small phyficallhelps, and the fame againe home-ward bound. The cheefe caufe whereof is the continance of falt 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 alfo for want of Aqua vite, wine, beere, or other good water to comfort and warme their flomackes, which by contrary windes men are too much incident vnto in long

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The causes of the Scuruy.

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long voiages howfoeuer the Marchants are carefull, prouident, and bountifullin that point.

An other cause of this disease to the ordinarie fort of poore men, iswant of fresh apparell to shift them with, which indeed amongst poore Sailers, especially a fort of them that are careletle and lazie of disposition is too frequent, partly also by the not keeping their apparell fiveete and dry, and the not clenfing and keeping their Cabins fweete, this also ingendreth and increaseth the infection. Some charge Bisket as a caufe of the Scuruie, but I am not of their opinion : Some fay inordinate watchings are caufe thereof: Some fay extreame labour wanting due nourifhment : Some alfo affirme cares and griefe to be fome caufe thereof, others affime the very heateof the aire, refoluing thespirits and vapors, and ingroffing the thicke humours, caufeth the Scuruy ; but what thall I amplific further , for it is also true that they which have all the helps which can be had for mony, and take as much careas men can deuise are even by the cuill disposition of the aire, and the course of nature, strooke with the Scuruie, yea and die thereof at fea 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 wilfulnetle or flothfulnetle perifh under their charge will furely be required at their hands.

But it is plain that this griefe is a lafie foule difeafe with obftructions of the liver, or fpleene, or of both; as alfo it appeareth that the head is much difeafed, and that there is great obftructions in the braine, for that the eies not onely looke evill coulored, but alfo the gummes putrifie, and the teeth grow loofe, and all the finowie parts of the body bearetheir part in the difeafe, for the flurinking and

withering of the finowes with the great paines the party hath declarethno leife.

Of the Scuruie or Scorbutum the signes.

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THe fignes of the Scuruie are many, as namely, a ge-A neralllazineffeand cuill disposition of all the faculties and parts of the body, fauing the stomake and theappetite which oftentimes is greater then ordinarie with them along time.

A discouloring of the skinne as if it were fouler then ordinarie, with fpots darker coulered then the reft, and fomtimes alfo darkish blew spots.

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

Alfo itching or aking of the limmes are fignes of the griefe.

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

Stinking of the breath.

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

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

their

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The signes of the Scuruie.

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

Great fwellings in the face, legges, and ouer all the body;paleneffe, or a foule pale couler in the face. Swellings of the gummes, rottenneffe of the fame, with the ilhewing of much filthy bloud and other flinking corruption thence, loofeneffe of the teeth : Alfo fome are troubled with an extreame coffiueneffe that for 14 daies together they go not to floole once, wherefore the Surgeon is conftrained with an inftrument to rake out the excrements to auoide death, after which extreame coffiueneffe often followeth a great flux of bloud, and a painefull : alfo many haue floppings of the vrine, or at the leaft making leffe water in two daies then the party drinketh in one day.

A coldnetle and stifnetle of the snowy parts, chiefly of the legges.

Some also have their muskells, yea and finowes of their thighes, armes, and legges fo walted away that there feemeth to be left only the skinne couering the bones.

Alfoit is manifelt that divers of those which have been opened after death, have had their livers vtterly rotted.

Others haue had their livers fwolne to an exceeding greatnelle, fome the fpleene extreamly fwolne, others haue beene full of water, others their lungs putified and flunke whill they haue lived, thefe and divers other fignes too many all to be mentioned here, doe afflict poore feamen, which often are palt mans helpe, in fuch place and time as they happen, the cure whereof refleth only in the hands of the Almightie. And yet to any man of iudgement it may feeme a wonder how a poore miferable man, comming on land from a long voiage even at the point of death, namely, fwolne fometimes to an vnreafonable greatnetfenotable to lift a legge over a ftraw, nor fcarce to breath by reafon of flrong obfhruction, yet in a few daies fhall receive the fulnetfe of former health, yea with little or no medicine at all.

The cure of this dilease, as a famous writer named Iobannes Echthius in a treatife de scorbuto affirmeth, consistent chiefly

Certaine figues of the Scurule by the dead opened i difcouered.

The cure of the Scuruie.

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 difeafed.

Iohannes Vierus another famous writer ascribeth the whole cure of the Scurule to the herbe Spoone worte. One Olaus Magnus a Swedon writer, in his fifteenth booke, and fiftie one Chapter, intreating of this griefe attributeth the whole cure therof to be in Abfinthio or wormwood, namely, to drinke much of the infulion thereof, Remedies touchand alfo of the falt of the fame : and one chiefe part of the ing the Scuruie, cure of the Scuruie (faith he) confifts in good diet , but the fea-men are inioyned to that onely the Ship affordeth, which the better and founder their prouifions of victualls are, the more their men fland in health ; and the contrarie not onely bringeth many difeafes, but maketh the difeafes which happen very hard to be cured, therefore I may fpare labour in writing what broths or herbs ferue belt where no fresh foode can be gotten : the Surgeon and his Mate must The Surgeons trelh toode can be gotten : the Surgeon and his Wate mult dutie in this therfore, seeing he is at sea deprived of one principall help disease at sea, in that cure, namely, fresh meat and good drinke, be diligent to call for fuch comfortable things as are by the great care and bountie of the Marchants prouided for fick men, or those which incline thereunto, whereof in each Shippe is a good proportion both of wine, fugar, fpices and other comfortablethings, and to feethey haueit in due ti neand measure : and likewife to complaine to the Gouernours if they be withheld from the fame, or if any manabufe himfelfe by miffe diet : yea and oftentimes , namely morning and evening to feeke for weake and poore men in their Cabins, or fo foone as they are miffing at their melles to inquire for them, and to fee their Cabins be fweet, and their prouisions according, or to moue and intreat the Mafter, or Gouernour of the Shippe for redretle in fuch cales, 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 griefe to giue a leni-T americanity

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The sure of the Souriy.

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tiue glifter, then the next day if the party be ftrong open a veine, but beware, as is faid, of taking too much bloud away at once, efpecially where the liver is weake or ftopped, and where men want good nutriment, for many euills enfue thereby, The next day following his bleeding if he can beare it, and if that his difeafe be with a fwelling or fulneffe, giue him a dotle of the pills of Euphorbium or otherwife of pipula ruffi, or of Cambogia, and make him fome comfortable spoone meate, such as you can make at lea; namely, an oatmeale caudell would not bee a mitle of a little beere or wine, with the yolke of an egge, and a little fugar made warme and giuen him to drinke, or any comfortable broath made with currants and other fruite, or fpices moderately taken, or with fugar, or as the shippe can afford, a barley water for hisordinary drinke were not amitle, with fome few drops of Cinamon water therein, and also fome inice or firupe of lemons therein, or a few drops of oyle of vitriole and fome fugar, and give him in his drinke by way of infusion, dried wormewood good ftore for it is very wholefome.

Further the Surgeon and his Mate must not faile to perfwade the Gouernor or Purfer in all places where they touch in the Indies and may haueit, to prouide themfelues of inice of Oringes, limes, or Lemons, and at Banthame of Tamarinds: Alfo fometime though a man bee well, accomfortable caudell made with fome wine, fpices, fugar, and the yolke of an eggewerevery good; for these are helps in that cafe as well to preuent the difease, as alfo to helpeit when it comes.

The excellencie of the Inice of Lemons, Limes, Oringes, and Tamerinds.

And further experience teacheth which I have oft found true, that where a difeafe molt traineth, even there God hath appointed the best remedies for the fame greefe if it be his will they should be difcouered and vsed : and note for fubstance, the Lemmons, Limes, Tamarinds, Oringes, and other choyce of good helpes 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 Indice the state of the state

Touching the Cure of the Scuruy. 185

Iuice of Lemmons fent in each thip out of England by the The Marchante great care of the Marchants, and intended onely for the care for Seamen releefe of euery poore man in his neede, which is an admirable comfort to poore men in that difeafe : alfo I find we have many good things that heale the Scuruy well at land, Land medicines but the Sea Surgeon shall doe little good at Sea with them, for the Scuruy neyther will they indure. The vie of the juice of Lemons cines. is a precious medicine and wel tried, being found & good, let it haue the chiefe place for it will delerue it, the vie whereof is: It is to be taken each morning, two or three spoonfuls, and fast afterit 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 fome fuger, or to take of the fyrup thereof is not amiffe. Further note it is good to be put into each purge you giue in that difeafe. Some Surgeons alfo giue of this juice daily to the men in health as a preferuatiue, which course is good if they have flore, otherwife it The inice of were belt to keepe it for neede. I dare not write how good Lemmos agoud a sauce it is at meat, least the chiefe in the ships waste it in preservative. the great Cabins to faue vineger. In want whereof vie the iuice of Limes, Oringes, or Citrons, or the pulpe of Tamarinds : and in want of all these vie 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 fower, to which you may also adde sugar if you please, or some sirups, according to your flore and the neceffity of that difeafe', for of my experience I can affirme that good oyle of Vitrioll is an especiall good medicine in the cure of the Scuruy, as alfo in many other greefes, the which in another place is noted. Further a decoction of Branne and therein Almonds ground, adding Cinamon and Rofewater a little, and fome 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 conferues Bb

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f a fluxe be fea-red. piperion.

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ferues, eat them as other Conferues on the point of a knife fucking out the fubstance, and putting forth the stalkes or flones thereof, fome diffolue them in wine or water, and worke out the fubftance of them therein, and caft away the refl taking onely that which is pure:one may vie this medicine fo oft as ye pleafe without danger or harme, onely Tamarinds must if hee feare a fluxe of the belly, or have a weakenes in the be ysed sparingly raines, let him not eat too much of the Tamarinds. Alfo the Electuary Diatrionpiperion giuen each morning a little Elect. Diatrion- on the point of a knife fasting, and last, namely at the party his going to bed, is a great preferuative; for it doth warme and coroborate the flomacke, and preferueth from the Scuruy, and is very comfortable to bee giuen to any one that is difeafed with the fame, or fubiect thereto. And the Theriaca Diate feron is yet better, for it hath an especiall vertue in curing that difeafe. Alfo Venice Treakle, Mithridate, and London Treakle preferue well from this difeafe daily taken failing, and fo doth conferue of Roles and Berberies mixed with a little oyle of Vitriole, and giuen on the point of a knife.

Greene Ginger is also very good to comfort the flomacke, and fo are all forts of Myrabolans Condite, and alfo all forts of strong Cordiall waters, but chiefly good Rofafolis and good wormwood water, yes and very good Aquavite helpeth well, Currants and Reyfons of the Sun are likewife very good.

Alfoallkinds of Spices moderately taken are good, and to is good wine a very good preferuer of the body from this difeafe, with alfo the continuance of fresh diet, which is hard to bee gotten at fea, the excelle of which good things is as dangerous.

The principall Laxatiue medicine which I would aduifein this cafe is pills of Euphorbium wherewith the body being fwolne and watery, you may at your pleafure make euacuation thereof : these purge also by vrine very well the dolle being 3 is, or at the most Dij. These are the fitter for that difeafe, becaufe they purge not alone water, but alto

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alfo by their great warmth, they comfort and warme the flomacke and intralls.

These I aduise the Surgeons mate to vse, as is faid, where the body aboundeth with ouer much cold and crude humidity, but let your dotse alwaies respect the strength of dose. the patient, for any strong purging is not good in the Scuruy : all fodaine and strong euacuations are to be auoided. Also Aquilla Laxative 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 wherefoeuer they be. But if the storacke onely bee oppressed with the greefe in this difease, I first give a dose of pills called Pilule Russi, namely 3-j: you shall finde them to be very good.

Note further, that if any dole or the whole malle of pils in the Cheft, fuch time as you would administer them be growne too hard, then you may ditiolue them with any firup you haue, or with good honey a very little, namely one onely drop will ferue to ditiolue one dofe at once if the malle prooue too liquid, you may roule it in How to compose fome of the Puluis Arthreticus till it be hard enough. Also them in a fit coffthe moderate vie of Verinice, Vineger, or Oximell hath frence if they bee ower-foft.

Furthermore, if you fee caufe, certaine daies after you haue giuen of any your former Laxatiues, you may giue a fweat to the patient in his bed, namely you may giue him a fcruple of Mitbridate, Venice Treakle, or London Treakle or Distefferon, and mixe therewith if you haue it eight or ten graines of the Diaphoretice, and being but ordinarily couered, he fhall fweat fufficiently if he kirre not too much. Alfo the fweating in moift baths I confeife to be good medicines in this cafe, though not well to bee performed at Sea for the ordinary men. And whereas one accident dangerous in this difeafe is extreme Coffiueneffe as is mentioned, with alfo ftopping of Vrine : theremedies for the Coffiuenes, is first that you attempt to mooue the belly by a lenitiue glifter as is faid, made rather of a flimy decocti-B b 2 On

Touching the sure of the Scuruy.

How to make a glister in case of Seurnie.

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Said glifters.

on or medicine which might leave no sharpe Astringent or deficcative quality behind it, yea though it purge not much, for the fharp Purgers after their working caufe often a more Costiuenes then was before, or by their violence caufe a weakenes in the ftomacke and intrals, whence followeth a fluxe, wherefore for glifters at Sea in great Costiuenelle, where the Apothecaries shop and Cheap-fide is not at hand, make a flimy decoction of Altheat rootes or Comfery rootes, or in want thereof, of Linfeeds & Fenoneceffity for the greeke bruifed, of each 31s : in want thereof, of Bran 3ij.to the decoction being Itrained, adde of /pecies Hiera Pigra 3-ij of falt halfe a fpoonfull, of honey as much, of oyle two spoonfulls : all these put together, let the decoction mentioned be fo fitted that all may be but one wine pint, and administer it with the Siring, beeing of a just temper in warmth, but if you intend not to haue it purge much, leave out the species biers pigra, and it will give 2, or 3. stooles. You may for an ordinary glifter well alfo take one quart of the broth from the beefe kettle, adding thereto of linfeed 3ij, comfry rootes and March mallow rootes if they may be had, a small quantity of Anifeed and fennell feed, ana zij, boyle these halfe an houre, then adde honey and common oyle of each a spoonefull, & giue one wine pint of this for a glister : 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 3ij, in the beginning of the decoction to the aforelaid decoctio, prouided there be no inflammation in Longaun, or intestimi 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 32 thereto, or of the Puluis Arthreticus 3j. rather, for it A fpecial ob. inflameth not, it were belt in my opinion to firiue in this seruation in gi- difease by glisters to giue but one or two stooles at one uing these afore time, for sharpe glisters offend much. Therefore though I thew what you may doe, yet be well aduifed in doing of it. Alfo of pills of Eupborbium, have a care you give them not

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not where there is an inflammation or inward heate in the For heate in the guts, in fuch a cafe, the Aquilla Laxatina will be abetter Inteffines vfe medicine, which will both temper the inward heate and Aquila Landa help to heale the interalls, and yet wil purge him well, and tine. doth not binde him againe prefently, and prouoketh alfo vrine very well, for Aquilla Laxatina will often caufe naturall loofenes, certaine daies after the taking thereof, and will purge water very much both by ftoole and vrine : and because as is faid, extreme costiuenes is great hurt to the body, the Surgeon must by his best care to the patient, feeke to preuent it, both by teaching him to doe his beft for his owne health, & to amend the fame by obferuing good cuftomes and diet : by cuftomes, namely that hee faile not daily, once a day at the least to offer himselfe to stoole, and doe his best to vrge. fome excrement to come, and fomewhat to force his body thereunto if occasion be, and to keepe one and the fame hower daily as neere as hee can: I know by proofe it helpeth much, and for diet to vfe also as neere as he can those things which hee findeth procure an inward flipperineffe and loofeneffe in the guts, peafe, oatmeale, and rice doe fomewhat thereunto, prouided they be very well boiled, and the adding currants A caution. thereto is the better, and oyle and butter are good helpes, The third rule but at land where it may be had, all kindes of fresh diet al- ceaseth, the most are good in that cafe, for by the leaving onely Sea Mariners on diet, the body refresheth it felfe fodainly through benefit fore. of nature and the fresh aire, and easily becommeth naturally loofe, and then the difficulty is ended. The cating of Tamarinds is likewife a good thing in that cafe.

What I hauewtitten here plainly, touching meane and fimple glifters ; I would not be miftaken, as if I did it out of ignorance or difdaine of better medicines, for I were worfe then foolish if I would reiect, detract or disfwade from the good vfe of decoctions of hearbes, feedes, &c. with the additions of Electuaries, Laxatiue Sirupes and the like which I haue in daily vie at home vpon each just occasion : yet many of the ancient Artifts of worthy memory

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Of the Cure of the Scuruy.

mory which I could rehearfe, haue in former ages vfed for glifters only water and falt with oyle, and fome others have added honey, and it is manifest that new milke alone is a good comfortable glifter with the yolke of an egge, and a little course sugar added.

And you may also many times faue a labor of giuing a glifter by a fuppolitory, which is either to be made of a long peece of Allum fcraped fmooth, or of a candles end, or of a peece of hard fope, or of honey and falt fodden till it bee fo hard that it will breake being colde, which being yet hot may be rowled & made vp of the greatnelle of a finger, & administred: of any of these, I fay, you may make a suppofitory as long and bigge as a finger or leffe, and thruff 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 Glifters, let a Glifter neuer ex-

garded.

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The true temper of the glifter to be administred.

glisterif the Longanum bee Stopped.

Aglister for inflammation and excortationin the guts.

The quantity of ceede the quantity of one wine pint, let it rather want one aglifter to bere- quarter, especially when you give it to a coffine body, or a ful body, he shal be much the abler & the willing ler to keep

it the juft time. Further beware it be not too hot nor too colde, for the guts are tender parts, fo hot as piffe new made, or a very little rather warmer is the true temper. But if you perceive the Intestinum rectum or Arle-gut, to bee excoriated or inflamed, in fuch a cafe vie no falt nor falt broathes, nor strong Laxatiues, as Euphorbium, Agaricum, Hiera Pigra, Coloquintida, or the like. If you find the Lon-How to deliver a ganum or Arle-gut to be clung, or hard flopped with excrement, you may put a fmal greafie or oily clout on the end of your glifter-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 fee caufe, and that it will not eafily deliuer, force it fomewhat. Alfo when your medicine is all in, and that you would draw out your inftrument 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 intrailes, in Gliffersvfe Deere

Of the Cure of the Scurny.

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Deere fuet Zij. for one glifter, and in want thereof, Axungia ouina vel porcina, I meane theep or fwines fat, and let the decoction whereof the glifter is made, be onely of branne, and without any other addition, aud giue now and then fuch a glifter, I meane once a day, for two or three daies, after you may addethereto fome finall altringent medicines, as Succus Acatia Zi. or Gales Z-ij. or Baluftians Zf. or Myrabolans, Z-iij. euen as you fee caufe, for thefe helpe to heale the guts well.

Of Lotions.

Oncerning Lotions to the mouth and throat of the difeafed, they must be sharpe and very astringenr, I meane them especially which concerne the cure of the The cure of the gummes in the Scurule, if the gummes therfore be fwolne, gums much that they hang ouer the teeth, flinke or be putrified, they Swolne, flinking must be very well lanced or fcaritied, and after hard rub- and putrified. bed with a linnen or wollen cloth, wrapped about the fore finger and wet in some strong restringent or Stiptick Lotionvery het, as is the ordinarie Lotion of Allum, Honey and Hearbes, adding thereto a double quantitie of Allum, and a little falt peeter, or gun-powder for a neede is good, & if it benot fufficiently flrong, make a ftronger decoction of coperas in water, adding falt peeter with a little honey, if you haueit, or Mell Rofarum, with also a little ftrong vineger, you may also put oile of Vitrioll a little thereto, but that it hath one cuill qualitie in hurting and foftning the teeth, wherefore beware of it, and if you vie it, do but onely touch the gummes with it once and no more, and it will doemuch good : and if you pleafe, also Aqua Fallopy is good, but because it is made with fublimed Mercurie, it is not without danger, and is also of a loathfometafte and fmell, and offendeth the ftomacke very much, but I know it to be held by many for a great fecret, but as for my felfe for reasons rehearsed, I vie it not but aduiserather that web is ftrong eyther of the Coperas, Allome, or Salt-peeter, for

Touching the Cure of the Scuruy.

for they hurt not the teeth at all as doth the oyle of Vitrioll, and fo doth Aqua fortis very much, or you may make a Lotion thus : R Coperas, white, greene or blew Zij. water one pound or thereabout, Honey one spoonefull, boylethele to the confumption of one third or halfe, then take of Lapis Medicamentofus, or falt-peeter 31s, and if you haue no honey, take Suger, or juice of Licorice, or Licorice boyled therein for to make it pleafant in talte, or withoutfor a need you may vie it, or the Lapis Medicamentofus diffolued into faire water, maketh an excellent Lotion for the putriffed gums.

Outward remedies for the rall.

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If Swelling grow in any part a Lixivii is good. Of what the Lixivium is made.

Touching good outward remedies for the cure of this greefe, bathes, fomentations, with also good oyles, vn-Scuruy in gene- guents, cerotes, cataplaimes, or emplaiters, are each neceffary in their due times, prouided they be of comfortable ingredients, namely those which minister warmth and nourishment to the dileased parts, and open the pores obftructed, all fuch, I fay, are most fit, prouided they bee alwaies applyed very warm, and the party belayd and kept warme vpon it. Further if it bee a fwolne member, then this following bathe to foment the member, will bee good, namely a Lixinium made of fresh water and afhes, and being onely but reasonable fharpe, (for too fharp of the alhes, will ouer heat, yea & excoriate) this done and cleered, boile fome hot hearbes, flowers and feedes fitting therein, fuch are Camomile, Mellilote, Dill, Wormewood, Balme, Rofemary, Time, Sage, Bay-leaues, Bayberries, Iuniper berries, Anis-feede, Fennell, Coriander, Carraway, Dill feedes, or the the like: thefe ingredients, or those of them which may be had, and let them be boyled a little therein, and either flupes of woollen or linnen clothes wet therein or put the ingredients into bagges after the decoction is made with them, and the place well tomented therewith, and fo laid to fweat with fome of the hearbes in the fame bagges well wrung out and hot applied, till the next dreffing. But if the difease proceede with stiffenesse and hardnesse of the sinewes, then forbeare the Lixiuium,

Of the Cure of the Scuruy.

Lixiuium, I meane put no afhes 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 fome falt, and likewife, if you haue it, Linfeede oyle, neats-foot oile, fheepes-foot oile, or oile of almonds, oyle of chamomile, Dill or earth-wormes, of Bayes, of Lillies or fome one of them.

Alfo where you can haue it, a good bathe of the bloud A bath of bloud of beafts, either cowes, horfes, afles, goats, or fheeps bloud very good. 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 ftill kept hot on the fire, and renew therewith the bath ftill, as it cooleth with the warme blood, for fome reafonable time, this reftoreth and comforteth mightily the decayed fpirits. Milke of it felfe is alfo good to be vfed in that kind A bath of milke. where it may be had.

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Of Oyles thereto.

O'Yles good to annoynt, which are Oleum Chamamilla, Oyles good out. CLaurini, Anethi or Lumbricorum, with a little Spike ward helpes and oyle, oyle of Turpentine, oyle of Nutmegs pretfed out, oyle of Peeter, oyle of Exitor or oyle of luniper, or one Much and hard of the fame mixed with them, or fome good Aquavita, frication very & to vfe ftrong frication with warme foft hands long continued, helpeth much.

Vugnents.

God Vnguents to help these greefes, in my opinion, what Fnguents Gare every warme and comforting Vnguent in vie in are heerein helpthe Surgeons cheft, but I have had especiall triall of an full. Vnguent, the composition whereof shall be heereafter deforibed, which is named Contra Scorbutum, as also of the Two principall Unguentum Populson, I meane the fame composition Valerius Cordus hath described, for I finde it to beevery good: Cc but uy,

Touching the Cure of the Scurwy.

Many medicines in frew that which in effect are not. 194

What Quickeand in effect.

The different pertue of the ingce of lemons.

but you may well fay, how doth hee contradict himfelfe, which euen now aduifeth warming Vnguents, and prefently reciteth Populeon for one, which is knowen to bee colde, but though I haue hafte, let mee I pray thee answer for my felfe in that one poynt, which I know to be a principall Arcanum in healing not looked vnto : many a medicine hath a feeming fhew to be colde, & yet doth contrary effects, witnetse Quickfiluer, luyce of Lemmons, Vitrioll, oyle of Vitrioll, Salt peeter, Allum, Sorrell, and diuers others which I could recite, all which may eafily bee prooued, either hot or colde, by their feuerall ftrong operations and effects which they performe : as for example, to begin with Quickfiluer, it is affirmed to be extreame cold of infinite writers, and his repercuffiue quality fheweth the fame as also in repelling and cooling hottumors : with alfilmer is in them fothe variety of colde difeafes and contractions Podagricall and Chyrurgical!, procured therby to diuers artificers which worke much therewith, as namely to guilders, Foilers of looking-glatles, and the like Tradef men, which fheweth the fame to be cold. It also fheweth it felfe to bee hot diverfly, as namely in that it is fo extreame fubtill and penetratiue, fo inuisible to enter the body (per poros cutis) and being in the body, fo volatill and bulie, fo caulticke & corroliue, so extreame Laxatiue, so diaphoreticke, so diaueriticke, so mundificatiue, so incarnatiue and so sigillatiue or ficcatrizing, as the like medicine by the art or wit of man was neuer found out:iuyce of Lemmons was euer reputed a colde medicine, prefcribed and giuen dayly by the Phylicians in burning and pestilentiall feuours, and that with great reafon, and good fucceife even to this day, and yet to that notable, and colde, and terrible difease of the Scuruy, how excellent hath it been approued, how then in these two recited medicines holds the old Axiome Similia confernantur fimilibus & contraria contrariorum remedia sunt ? euen as true as vox popula vox dei, pepper is hot in the mouth and cold in the mawe; if I would defire truely to coole and temper the boyling of

Touching the Cure of the Scurwy.

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of the bloud inwardly, which I my felfe would take, yea were it vpon the lafegard of my owne life I would take fiue or fixe drops of good oyle of Vitrioll in a draught of A fingular and faire water with a little fugar, a drop or two of Rofe-water medicine to and as much wine vineger, marke well my words if thou temper the bojknoweft not these medicines they are worth knowing, or ling of bloud. 3- j of pepper, faltniter, which is also called Lapis prunella, in the like liquor, and for want of the fugar, rolewater, or vineger of it felfe, or with the water only for a neede : I haue often prooued them fo true coolers that they have staied the Hemoragie or bleeding at the nose, the latter whereof shall feldome faile if you by outward To ftop bleeding meanes proceede rationally by applying to the forehead at nofe good cold and astringent things, as alfoto the nape of the neck: alfo a large fpung wet in cold water and applied to his fecret parts is good, or let him hold or put his members into a boule of cold water, alfo binding hard the armes and legges is very good to flay bleeding at the nofe; and one of the furest remedies but last to be attempted in Hemoragie or bleeding at the nose, is to open a veine in the arme on the fame fide. Thus it may plainely appeare that two of the recited medicines are cold : now to proue those two hot, I will not fpend many words, call to minde that of Vitrioll and Salt-peeter Aqua fortis is made, which by What opposite his heate and penetrating force, teareth to peeces and dif- Sale-peter, and folueth the ftrongest mettalls prefently, deuoureth & vt- aqua fortis terly destroyeth cloths woollen and linnen, or put but bane. good oyle of Vitrioll into an vlcer, or to the whole skin and tell me halfe an houre after what a cold feuor the Patienthad : or putfire to crude falt niter alone and marke Salt Nittr. the conclusion, namely it will prooue it felfe wholly combuftible, and therefore hot : as I fuppole likewife the herbe Sorrell, it is a cold herbe efteemed at leaft in the first if not As alfo like in the fecond degree, and yet confider well if you feeke different operaquickly to ripen and bring to fuppuration an Apoftume tion in Sorrell, you shall finde it a most excellent speedy remedie : I conceiue therfore that it is not by his coldnelle it doth that effect

Cc 2

Of the Cure of the Scuruy.

A Saying of Ofwaldus Crobius. 196

Gods providence to be observed in Phisickes operation.

Where the vugnents are to be applied.

What outward medicines the liner and stomake require.

fect, for that is not common nor rationall, and therefore to conclude my degression as Ozmaldus Crollius a late learned writer faith in his Preface Admonitorie to his booke called Bazilla Chimica Simplicium : qualitates non semper consideranda sed earum arcana, The simple and apparant quali. lities of Medicines are not alwaies alone to be respected, but rather their mysteries or hidden vertues.

Thus much in defence of the temperament of fome private Medicines working strange and several effects, wherein the mysteries of our God in his divine providence farre do excell what soever things else, shewing mans wifedome meere foolishnesse, wherefore to him for evermore be praise, Amen.

The warme vnguents are to be vled where you fee apparant neede by reafon of the coldnelle of the part, the Populeon where there is paine though no manifelt figne of a hot difeafe appeare, and doubtleffeit will worke good effect to your comfort, yea though you thinke the difeafe benot 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 it you lift to adde fome more califying oyles, take of oyle of Speeke, of Terbinthine, or Petreolum, but good warme application and strong frication is the meane, and warme keeping. Of medicines to be applied to the Spleene, Liuer, or Romake outwardly, the vnguent pectorale defcribed is very good warme to annoint those parts, whose description with the reft you shall finde, and to lay also ouer the whole part agrieued the Emplastrum mellilote profplene, whole description is expressed in the Dispensatory, for want of which Plaster Emplastrum cumini is good. Alfo the well annointing with oyle of Nutmegges, or Maceadding a few drops of oyle of Cloues Chymicall doth much comfort, keeping the grieued part extraordinary warme.

Oj:

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Of Ulcers in those that baue the Scurule.

THe Ulcers which happen to them which have this difease are many waies different from the generall formes and differences of ordinary Vlcers in bodies not touched with this difeafe, all which I haue here no time to . amplifie. But becaufe this difease hath two generalland Two firange efprincipall differences of appearance, namely some men fects the Scuruie deceased with the Scuruie are swollen exceedingly, as in causetb, the first the dropfie: Others their outward limmes withred, con- inflation of the fumed, and dried vp, their finowes thrunke and growne whole body. hard, though the Vlcers in the one and the other fhould be like in flew, yet doubtleffe the healing of these Vicers A fecond is conwill be found very much different, wherefore for one ge- body. nerall note remember that the Vlcers in the full and hydropicall bodies will require more deficcative medicines, as namely the Vnguentum dispompholigos, de minio, Vnguentum album Camphoratum and the like : And the other kind the Unguentum basilicon incarnatinu, and the Arceus linament and the like to those. Some sea Surgeons have commended to me of their practife the vfe of Veficatory medicines, namely Contharides in painfull swolne limmes, which I Experience the leaue to the practife of others further to commend the best praiser. fame, my felfe having referued it as a great fecret from a Surgeon my friend, but made no fuch experiences thereof my felfe.

And further touching the cure of Vlcers in this difeafe Obstructions of vntil the obstructions of the liver and spleene be removed, the Liver must those Vlcers give no place of the liver in the liver be removed bethose Vicers give no place to good healing ; wherefore fore the Picers fince notwithstanding they must bee carefully attended can be cured. for conscience sake, I aduise that all sharpe and violent medicines beshunned, and all foft and anodine things applied Cc 3

Touching the cure of the Scuruy.

applied that you know or can learne, prouided they bee warrantable medicines, for otherwife they not only ftriue against a streame, but put your Patient to needlesse difquict, and thereby increase this difease.

I have 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 inftructions worth following, together with his owne daily practife, which, if he be wife, he may likewife fet downe, onely let me aduife the young practitioner that How to help the fometimes (as my felfe haue experienced) the fcuruie probody extremely duceth fuch extreame costiuenesse, as neither suppositorie, glifter, or any Laxatiue medicine whatfoeuer will auaile, but that the excrements must be drawne out of the Longanum, of the Inteftinum rectum with an instrument, for they will be like drie lumps of clay, or hard sheepes treckles, as they terme them, the which inftrument I haue appointed and is an easie and a fit instrument, called by me Spatula Mundani, which instrument being a little warmed, is then to be annointed with oyle, and fo gently put into Ano to draw out the excrements, and to make way for the glifter-pipe, which, when it hath clenfed fome fixe inches; or fiue inches, you may aflay by a glifter againe. Furthermore it fometime happeneth, that by the long remaining of the excrements in the Longanum, the gut is either excoriated, or at the least inflamed. In fuch a cafe you may take notice that you forbeare falt, as is faid, and all sharpe heating things in your glifters, as Coloquintida, Hierapigra, Scamony, Agaricum, Euphorbium, and the like : and content your felfe to administer for the first, a glister made onelie of a decoction of Bran alone, or of Mallowes, or of Comfry rootes small cut, or Linseeds bruised with Zij of Deere fuet, Vnguentum Diapompholigos, or as much popule-Aquille Lana- on Or Vnguentum album, as is faid, and rather if you finde

What muft be done for the cure shereof.

Aglifter.

that helpe not, giue a dole of Aquilla Laxatina which will sina : purge eafily without any offence at all, and helpe to heale

A caueat.

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bound through the Scurny.

> the gut, and this course is better then by sharpe glisters to purge

The cure of the Scuruie.

Alfo an infusion or gentle decoction of the roots of the hearbe Rhaphana filuestres, or horse-reddish in vineger, or mixed with beere and drunke, is exceeding good, or eaten of it felfewith bread.

Bay berries, and Iuniper berries are also wholfome boy- Bay-berries alfo led in whay against this difease, for they open obstructi- and Inniperons : likewile from these former hearbs may many other berries are good. good compound medicines bemade.

And generally note, that bitter and fower medicines preuaile most to the cure of this greefe, amongest which fower medicines you haue that are approued good thereto, these that follow as cheefe, luice of Lemons, of Limes, very good. Citrons, and Oringes.

Oyle of Vitrioll, oyle of Sulphur, fpirit of Salt, vineger of Wine, and the fpirit thereof . alfothe Sirups thereof, fo many as are in vie, and the rather, for that they cut away the tough and groffe flegme, and have power alfo to open obstructions. In like manner, the inice or pulpe of Tamarinds hath a great acetolity, and is found a precious remedy against this difease, the vse whereof is noted althree sinds-mamel readie.

Alfo : note further that there are few difeafes at fea happening to Sea-men, but the Scuruy hath a part in them, An observations the fluxes which happen chiefly proceed from the Scuruy, and I suppose if Seamen may be preferued from that difcafe, few other difeafes would indanger them.

paulern the fullenance raken, wholy

The conclusion.

"Heferecited medicines for Chriftian charity I thought L not amille to publish, admonishing young men to be The confes of wife and carefull to make right vie of them, and as neere as they can, to respect in the vie thereof, Time, Place, Age, quantity, quality, temperament, frength, climate, caufe, Surgeon and and what e feis fitting to be regarded for the good of the ought to be aficke, and credit of them felues, and let them auoide floth- woyded. fulnes, auarice, enuy, feare, pride, or what elfe may hinder thele Dd

What is bad in a

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these duties, that God may give a bleffing to their labours and then the praife and comfort shall returne to themfelues, which God grant.

And for the elder fort of graue Artilts, I craue their charitable centures of my weake or vndigested instructions, which I no way meane to them, but to babes in Surgery, and fo I conclude to the honour of the Almighty, concerning the Scuruy for this time.

inoll to the cure of · abiorigel v Hars gree CITALITA CITALITA CITALITA

the bellie.

ntitles manner. che fuice or pulpe of Tama-He principall Fluxes of the belly by a common con-I fent of divers ancient writers, are chiefly referred to three kinds, namely: med col mool Mile wet CLeienteria, minimiteria sont foille.

modening a deal yu ZDiarrhea. montes 2 at g Curus 2 odan od babo (Difenteria. god dateleve

(TSTATER SCATTONIA

What Lejenteria n.

An abfantassian

Source mudiciness

1.2002 Cara

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The causes of Leienteria.

and the most ben that dif-Leienteria is diffinguished to be that Fluxe which either patfeth the fustenance taken, wholy 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 weakeneffe of the ftomake, which may be occasioned many waies, whereby the vertue retentiue is weakened; yea and fometimes the ftomake referring apollumation is either wholly weake-Cruditie a caufe. ned, and cold and broken, or fometimes by crude humidities is oppreffed, and must be strengthned, both inwardly and outwardly, by things that corroborate and warme the same, as is firupe de absinthio, or oleum absinthy; Chimice

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mice three or foure drops thereof in wine, or heere for neede, and I have found it good to a strong body, at first, namely in the beginning of the difease to give him a vomit of the infusion of flibium, or rather of Salvitrioli, ten A vomit at first. graines if it may behad, or of aquila vita foure graines, or of Cambogia twelue graines, and fo the medicine having done working, let him prefently fleepe falting, if hee can; if not, giue him a little Cinamon-water, or a little fanguis To coroborate. prunellorum, if you haue it, or a draught of good aligant, or conferue of floes, or quinces ; and fhortly after, namely three houres, if he cannot take his reft, giue him three graines of Laudanum in a pill, and fo appoint him to reft; An opiate, but if you conceiue, or feare the difease to proceed of apoltumation in the flomake, then beware of giving any vomit before perfect suppuration of the fame, for it is deadly, but outwardly you may apply to the flomakea bag, with wormewood, mints, or fweete marioram, and Stomake coma warme being iprinkled with rofe water and vineger, or forted. elfe a bisket bedued well with rofe water and vineger, being steeped, must be applied to the stomake ; or annoint the ftomake with unguentum pectorale, 'or with oyle of nut-Pectorall vnmegs made by expression: also Theriaca andromachi, or theriaca Londini Z-B is very good given him vpon the guent. point of a knife, or Marmalad of Quinces is also good : Cordialls. Methridate is very fit and approued, or grated Nutmegs is very good, and Cinamon in pouder taken in meats or drinkes is good likewife; if thesethings answer not thy defire, thou mailt proceede to medicines more altringent, Astringene medicines. fuch as follow in the cure of Difentery, one very familiar and good Medicine is fanguis prunellorum aforefaid, the dofe is 3j or 3ij with Mint or Wormwood, or Carduns water, taken going to reft, or taken of it felfe. But your mentioned Landanum in all Fluxes indicioully adminiftred is the only fure helpe, neuertheleffe in this griefe trie cordial waters. other good things : first all Aromatized strong waters are conuenient in this cafe, moderately vied as well to auoide further Fluxes, as also in these Fluxes to comfort the stomake, Dd 2

Diatrion pipe-810m.

Sirupe of lemons. Spirit of vitriole,

firft.

Apurge.

make, fliptike wines ferue well for it:likewife, Theriace diatefferon 3- j now and then, allo ele Etuarie distrion piperson 3 or 3-ij on a knifs point giuen is very good, for it mightily warmeth and frengthneth the fromake. But fometimes it happeneth that not onely the meate patfeth away by ftoole, but also other vndigested matter with it, in which cafe Petrus Bayrius in his Veni mecum folio 273, aduifeth to vse things fowre with meate as Veriuice, or the iuice of fowre Pomgranats and the like, in want whereof the juice of Lemonsis good, or rather firupe of Lemons, or firupe de Agrestis, or oyle, or spirit of Vitriole taken in some fitting drinke, as Cardsus water, or faire water, wine, or Barly water, the oyle of Vitriole. 3. droppes taken with conferue of Roles is also good in this dileafe; outwardly keep warme the region of the ftomake and liver, and inwardly as is faid, namely vie all good comfortable helpes that warme, rolling, will worms wood, mintee , or he get manora mine and e being fprinkled with rofe water and vineger, or

-substantiv bas note of Diarrhea. bould a side alla

emphied to the floringies, or annoing

larrheais a Flux of the belly which is either meerely watrifh, or with humors and with flime mixed, for the fignes of the difeate are manifelt, the caufes too many for my leafure to note vnto you, concerning the cure of Diarrhea if you fee that the Patient be ftrong, there is no great Stope not at the haft of ftopping this difeafe, for that it is many times a benefit of Nature, whereby the auoideth fuperfluous, or venemous, or otherwife vicious and offentiue humours: but when you fhall perceive that it hath continued certaine daies, and that the party is weakned thereby, then begin the cure as followeth : First giue him Jij of Rubarb dried as they vieto drie Tobacco, and poudered either in wine or Carduus, or faire water, or the infusion thereof without the fubstance, and after the working thereof, a gentle glister will doe well, which may likewife leaue a stipticke quality in the guts, but not too ftrong, fuch as hereafter shall be mentioned, and let the party belaid to reft very Lozam warme:

warme couered, and warme clothes applied to the belly warmth is very and fundament of the party, and if that helpeth, not you good. may give him within three houres three or foure graines of Landamm, and let him againe incline himfelte to reft and by Gods help he shall be cured : but if he have a feuor giue himan opiate firlt, I meane the Landanum. Good Landanum. helpes to the cure of this difeafe and all Fluxes of the belly, are thefe following, first to refraine and relist as much as is possible the motions of going to stole, not to straine or force the body being at floole, not to fit long being at stoole, in riling to remember to put vp the fundament with a clout, and that if it may be with a warme foft clout : Worth the obto fit as hot as the party can, namely if it may be often to ferning. fit 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 fprinkled on Manuall help. a hot bricke, or iron, and fit ouer it on a close stole is approued very good, and to fit ouer the fume of Franckencenfe or Amber with a chafing difh, and a few cooles in a close stoole is likewife very good, this difeafein our climatefor the most part by skilfull Philitions and Surgeons is well and speedily cured, but in the Indies it is very A fumo: hardly cured, in fo much that many haue died of it, partby the great wilfulnetle and diforder of the Patient, and by your leaue alfo by the ignorance of the Surgeon being athing they had not beene warned of before, nor practifed in, and by not having good remedies and inftruments fit at hand to giue men helpe, wherefore let young Artifts Care to be bad. haue a care to these afore mentioned rules and medicines, not fcorning them.

And among other needfull inftruments for poore Seamen in fluxes, neuer be vnfurnished in the shippe of one or two close stoles with doores to them, and bratle pailes, that poore miferable men in their weakenes may be eafed 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 the: Dd 3

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A dangerous ascident. 206

Admonition to young Artifis.

Ambiguity impertinent.

Aduife so the Artife. the Arfe-gut, a fearefull accident, except the Surgeon be very carefull, diligent, and ready handed, in which cafes, all nicenes, lazines, and difdainfulnetle (too much cleauing to fome young men) must be laid afide, for the very omitting of his duty in reducing the gut fallen, may eatily be the death of the patient; whole blood will cry to God for reuenge: Wherefore young Artists that profets to feare the Almighty, be compationate to the meaneft creature in this difease, 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 fecond booke, de locis affectis, defineth this difeafe as followeth: It is, faith he, tearmed Difenterium, whereas variety of fubftances are fent out with the excrement, producing excoriation with dolor and paine, as if fomewhat were shauen from the small guts, and that shauing, faith he, proceedeth from choller and turneth to viceration of the guts, and is compleat in two weekes, or proceedeth of a glaffie coloured fubftance, 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 felfe with long definitions, eyther of the caufes or fignes of this difeafe, my leifure will not permit me, and the rather will I not infift thereon, for that in reading I finde divers learned and reverend writers that have entred into long difcourfes of the fignes & caufes of this griefe, prescribing divers methodicall rules, and yet they conclude of the cure of Difentery, for the molt part of them with a kinde of Empericall forme of curing, namely fome reciting one, fome another medicine for the generall cure of this difeafe: many of them ending without any rationall, or methodicall forme at all, which argueth in my opinion, that it is imposfible eyther to finde out all the caufes thereof, or to prescribe any one true forme for the generall cure of the fame, but the difcreet Surgeon must be armed with judgement in these following principles,

ples; namely that if he perceiue it to proceed by fulnes of bloud or humours, to feeke the health of the Patient by fundry the most rationall and fittest euacuations; as namely, bleeding, purging, and flendernelle of diet : then alfo, to proceed to medicines which take away the acrimony, and heale the inward parts, then to those which are Anodine, and caufeth reft. A learned French Surgeon named Guillemean, writing a Treatife of this difease, in his Guillimeau his conclusion faith as followeth : The Emperike Medica- opinion. ments which the methodicall Phylitians fo difdaine and efteeme of little worth', are those which weethrough our experience, and through the diuturnall vie of them, haue found to be most excellent, which being vied with Iudgement, are not to be difdained, feeing that Gallen himfelfe teltifieth, that the Phylition must be established on two foundations, to wit, reason and experience, whereof rea- Ground of Arts. fon is as it were the foule of the fame, which meafureth and pondereth all things, and the experience the body as a prouident tutor and schoolemaster, wherefore seeing that experience teachethys that Rubarb in what manner foeuer Rubarb praifed. we administer the fame, (but especially the infusion thereof) is very commodious and profitable in this difeafe, as likewife is Spiritus vitrioli with Role-water, and Plantane water, and also being administred with Cinamon-water, faith Guillemean, there is a fugar like dulcor or fweetnes extracted out of leade, which neuer deceiued the hope of the Right Worshipfull Master Duion a very learned Phifition, whereof I have attained the best of these discourses: Saturni. the tincture of Corall and of yellow Amber, extracted with Aquavita, is in operation admirable, allo Crocus Martis, or flos Sulphuris being in feason administred with the conferues of Rofes, Marmalet, Citron rindes, with other fuch like things are very commodious, because among naturall things I know nothing exficcateth more, and opposeth it selfe more against all corruptions. To conclude, there are innumerable forts of remedies which wee must fo compound, that they may have one fimilitude, or one

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Saccarum

What people most subject to this difease, and where,

atten, in Longer

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If the Patient want reft, give him a Glifler.

one Analogy with the difease : finally we multin extreame Difentery for the laft remedy indeuour to mittigate the pain with narcoticall things, as is the Oleum Infquiamimandragore, the cold feedes, the Philonium requies Nicolai, and many other fuch like compositions which are vnto this difeafe vied, and which may not be administred except great ludgement and aduife had thereon. Thus much out of Guillimean. This difease chiefly afflicteth Souldiers in warres, and Sea-men in long voyages, and namely in hot countries, chiefly when after fort and hard allowances they shall happen on the fodaine to get great flore of rawe fruit, fresh meat, flesh or fish or any other great change of pleafant dyet, in which cafes reafon and Iudgement, as the principall helps are to be vied, as for inflance this difeafeis incident much to fuch as change the place of their abode for a farre hotter or a farre colder country, but chielly into hotter, witnes the mortality through that difeafe which hath often befallen our Souldiers in the warres in France, &c. Asalfo now at Bantham, how much doth it afflict them that live there. Moreover as is faid, 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 mult be a prefent purge, if strength will beare it, namely of Rubarbe, as is faid in the cure of Diarrhan, or a Decoction of myrabalans and also a good Barly water : the fecond good help is a Gliffer, which may be proper against sharpe humors : and after to conclude the cure with a dole of Landamm Paracelli, but if the party be in great weakenetie and want of reft, giue him fome comforti bleglyster first, next that an Opiate, I meane the Laudanum one dole: you may begin in weake bodies firft with opiate medicines, in that there is most need of ease, and if you find after reft it help not, vfe a Glifter or a purge as you fee caufe, for though the Landanum at first cure not, yet it giueth reft, whereby the party afterwards, it is likely, will bee the ftronger to indure cure by other reafonable medicines,

medicines, which done, if that answer not thy defire, thou mayst returne to Landanum againe and againe, alwayes remembring, as is fayd, there bee foure houres at The of trepeating the least distance, betwixt each dose, and if the disease pro- requireste this ceede of heat, feeke to coole the bloud by a decoction of caution. Plantane and colde hearbes or feedes if they be to be had, or at fea with fuch medicines as are vied to quench heate, and are not meerely tharp, 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, whill the fayd waters are good and fweete, or with Aqua Sparnola, if it beat hand, also a barley water with a little Allum or Galles in powder is fingular good, fo is Bole, but the finer Bole the better, and Terra Sigillata, and Sirupe of Quinces is good also in that cafe, add fo are all the medicines made of floes, after fome due euacuation, as in thy diferetion thou shalt seerealonable, but to conclude, a dose of Laudanum opiat, is best to finish Laudanum the worke for that goeth before, or rather exceedeth allo-laude dignum. ther medicines in fluxes, for that fwageth all paines and caufeth quiet fleep, which often euen alone is the true perfection of the cure. And further, if it shal appeare, that this difease have fo gotten the vpper hand that the patient is How to restore growen very feeble, his bloud being walted, appoynt him the patient very a diet that may warme and comfort the ftomacke, namely, weake by Difenat land if it may be had, Brothes of Chickings or the like, with some spices therein, and egges and sugar, and a little rofe water, but not honey, for that increaseth gripings, and cawdels with egges wine and fpices, according to good discretion will doe well, if they may be had, and give 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 fuet Zij. let not your decoction be Aglifter againft too flimy of the Bran, and addeif you can get it, the yolke of oncegge, for egges comfort much and fwage paine, the yolke of the egge must be well beaten with the decoction by littleand little, fo taken very warm, or if the party haue gripings Ec

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A glifter for griping through Diffentery.

Another glifter

Another glifter

gripings in his guts, make this glifter following, and for want of Bran take a little wheat flowre, and with Camomile, Sentaury, Worme-wood, S^t. *Iohns* wort, or fome of thefe, make a decoction adding alfo Anis feede, Fennell, Dill or Cummin-feedes, or the like, or fome of thefe at the leaft, adding after the boyling, fome two or three fpoonfuls of *Rofafolis*, or good *Aqua vita*, or fome flrong cordiall waters, if you fee there bee caufe to comfort and warme, and adding alfo, as is fayd, Deere fuet Zij. with waxe ZB.

Alio glifters of milke and egges onely are very good to fwage gripings and paines, where they may bee bad, alfo as is fayd, 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.

For excoriations of the guts, make a glifter with a decoction of dry Sentaury, Hipericon, Worme-wood or Balme, with Barley adding of Deere fuet 3ij. and a little dried Galls in powder, or cut in flices, or (uccus acatie or Cortices granatorum; or dried red rofes, if you have them, of Balausties, which are flowers of Pomegranets : Note what powders focuer you give in glifters, let them bee exceeding finely powdered, otherwife they are very dangerous, and feare not to administer an opiat, as I haue faid, prouided that there bee foure or fiue houres distance of time twist each dofe, alfo you may give a dofe of Rubarbe, namely Jij. or 3-B. parched and powdered fine, for foit doth belt, taken either alone, or with Sanguis prunellorum one fmall spoonefull in wine, and a little Cynamon water, or in any other conuenient drinke, as the prefent flate of the ficke shall cause thee, or for want of wine, beere or water, you may give the ficke alfo conferue of rofes or quinces, after which, if caule bee to giue the Landanum againe, you may fafely doe it. Furthermore in this cafe, as alfo in all kindes of fluxes, fumigations are very good medicines, namely fitting ouer a close ftoole, prouided the ficke bee very warme kept, and not too hot, to which

which purpose a well burned bricke heat very hot and put vnder the floole, laying two colde brickes vnder it, for burning the ftoole, and then fprinckle often the hot brick with vineger if the difease be hot, or with vineger and Aqua vita mixed if it be colde, and for want of brickes fome great peeces of oldeiron will ferue, as it is already rehearfed, also decoction of cynamon or cloues, or both together, or numegs fet 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 In a fluxe of the the belly may follow, that you purge not the party with bellie awoyd Coloquintida, Trochis de Albandall, Agaricum, nor Dia-Purging medigredion! And remember euer when you give Rubarb, that you giue cinamon, or ginger, or Anis-feedes, a little therwith, which correcteth the flatuous disposition thereof. If this difeafe of the fluxe shall shew it felfe to proceede of any contagiousnelle of the aire, as sometimes it doth, this is certainely the most fearefull of the rest, for although all difeafes hane their originall from the hand of the Almigh- All difeafes proty, yet then we have all reason to call to our remembran- ceed from God. ces, the words which the Prophet David speaketh in the Pfalmes, Whither shall I flie from thee O my God ? when God must be therefore the aire which we are forced to receive into our fought vnto. 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 miltruft, but to vfe all artificiall meanes, referring the fucceffe to the Almighty. Wherefore in this cafe I holde nothing better then a good purge of Rubarb, and then to to take three or foure graines of Laudanum Paracelfs, then after there may bee given him one fcruple of The cure of a the best Treakle or Mithridate, or London Treakle, or flux through meerely Laudanum alone. You may give the party also a the aire. little Cynamon water, or Aqua Theriacalis, or Cardnus water laying him to reft : It were! alfo to be confidered whether the body flandeth in neede of bleeding, purging, or a glister: but when as the difease proceedes from contagious and venomousaire, and is fierce, I holde it the fafest courle Ee 2

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course to forbeare bleeding or purging, for feare of drawing backe the venome to the principall parts, and rather If the flixe bee to flie to Alexipharmacons or Preleruatiues, as Venice fierce and Sudden what to be done. Treakell, Mithridate, Diatelleron, London Treakell, or the like : And prefently after, or immediately with it, as is faid, giue a dole of Landanum, which of it felfe is a perfect

The flix through the aire is infe-Elions.

Infection Mould not daunt Surgeons called lawfully to the cure of any difease what foener.

The cure of Diof Lyensery.

cordiall, and a good preferuatiue. Many learned writers are of opinion that this difeafe is infectious, and that the breath and excrements of the fick man may eafily infect a found man, affirming alfo that from putrified and difeafed bowels, infectious vapors doe afcend and defcend, and partly therather by a kinde of fimpathy our bodies have each with other, but left that opinion of mine vitered may perhaps offend the courage of young Artifts, whom I feeke by all poffible meanes to embolden, let them take this rule from mee, in the feare of God, I holde no difease infectious to me, in that I have a lawfull calling, and I am therefore bound to visit the difeafed, which who fo neglecteth, God will finde him out with that difease or a worfe. Now a word or two of fuch medicines as are belonging to the cheft found in the fhip, or at the vtmoft may be found in the East Indies, or that are likely to be found there I intend to fet foorth fome inflructions for the Surgeons Mate:and fift note I have cured many, both in Defenterie and Lyenterie, with burned fentery at fea, & Harts-horne, or in want -hereof I have found that onely the hard bones of Beefe or Porke calcined or meerly burned till they be white, for fothey must be, and it may eafily be done in any wood or coale-fire, being not a fire of fea-coale, and then being powdered fine, and giuen continually in the ordinary drinkes, during the time of the fickneffe it helpeth much, and you may affure your felfe, that if you take much or little of it, it can do no harme to be taken, and with fome few drops of Cynamon water, if it may be had, it is the better, or a little Nutmeg and Cynamon impowder therein, alfo I haue giuen it fometime with Rofa folis and faire water mixed, of each two fpoons fuls

fuls and 3-j. of the powder of bones.

Another secret which bath cured many of the flixe.

R. Wheat flowre, and thrust it very close together into an end of a clowt, and fo binde it vp hard, and close like a buller, 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 Z-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 fure at fea 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 give it with fome liquid medicine proper to the greefe, allo Crocus Martis Dj. 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 fame alfo is given with Venice Treakell, or London Treakell, or good Mithridateis likewise very good, but to a weake person giue it alone with Sugar, it will pleafe his tafte better then with other ftrong medicines.

But if you perceiue the difease proceedes of wormes, as The cure, if the often it doth, then giue the patient a glifter of a decoction difease proceede of Alchearoots, with a little worme-wood, adding Colo- of wormes. quintida Zij. where there is no great acrimonious paines & Glifter. in the guts, but where there is great dolour in the guts, rather put some Bay-berries, namely 3-B.in your decoction, which decoction you may also make meerly of the bran, if you pleafe, and make it not too flimie, I mean, put not too much bran or rootes therein, then adde, if you haueit, of Aquila Laxatina, 12. graines, Deere suet Zij. or three ounces, and give it flirring well the powder therein, this Aquilla Laxatina, certainely will kill anie wormes, and giue present cafe : alfo almost all bitter things kill wormes, The meanes to as Alloes, Agaricum, Coloquintida, Worme-wood, and the like kill wormes. but principally Aquilla Laxatina doth it fure, and is fafe to begiuen, the dole by waie of glifter is to 10. graines. Mr. Edwards Ee 3

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Mr. Edwards his medicine for the Fluxe.

R red-role water ij spoones-full, Cinamon Z ij, Almons of vallence Zijij vnblanched, the Cinamon is to bee brufed and boiled in iij pounds of water till ij pounds bee confumed, then referue that decoction and adde three pounds more of faire water to the former Cinamon, and boile it as afore, referue both the waters together, then beate or rather grind well your Almons, and being well ground and beaten adde thereto fome little quantity of the water mentioned, grinding the Almons therewith: and againe beate the faid Almons, and fo often beate and ftrainethem with more of the faid liquor or water till all the substance of them be in the decoction which will bee in the forme of an Almon milke, then adde role-water if fpoonfulls, and as much fugar as to fweeten the faid drink, giue the Patient thereof to drinke fo oft as hepleafe.

Let fuch as feare the flixe not ouergorge themfelues, for the ouercharging and ftraining of the ftomake oft bringeth this ficknelle, chiefly when the body is weake, as allo if the fooderaken be crude or not well boyled or rofted, and meerely fresh without any falt. Also the vle of eating Tamarindes brought from Bantham if you vie them ouermuch by their acrimony may eafily caufe a fluxe, although their vertues in preferuing from the Scuruie, are vnreproueable and very good in deede.

The higher toward the flomacke the difeafe hath his beginning the more dangerous it may bee adjudged. By the complaint of the ficke you shall know partly in what part of the body the difeafe is, though not alwaies: if the fmall 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, ac-The caufes of the Cording to their places.

This difeafe proceedeth fometimes by Apollumation Fluxe with the fignes of death, of the guts, and then it is exceeding painefull beforeit come

Glattonie a cause of the Fluxe.

The signes of the places affeeted with the Fluxe.

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 difease proceede from a former great obstruction either of the Liuer, of the Lungs, or the Spleene, there is small hope of life to be had.

Alfo when convultions of the finewes, hickett, and vomiting, or any one of these fignes, especially the two first appeare, then commonly death is at hand.

One learned Writer rehearling Hyppocrates for his Author, faith, that vfually before death in this difease a black or blewith fpot will appeare behinde the left care of the ficke, which I also have seene observing it of late: you shall finde Plantaine water to beevery good liquor to giue any drie medicine in for the flixe, especially where there is any plantane wacomplaint of heate, or excoriation, Plantane feedes are al- ter, and feede, fogood, and fo is a decoction of the roots of Plantane and roots are very good for that vie, or for Glifters where it may be had. very good for The purging medicines which are called Diaureticke, or the Fluxe. that prouoke vrine are also praifed by Writers: but I leaue them to be done with great judgement, onely if you vie any medicine to caufe vrine, the pouder of yellow Amber is a fure one, and without any manifest hot or offensive qualitie, so is the pouder of the Seahorse peezell and the morse tooth, of any of which if you give Z j for one dose you may fafely do it, but a) is fufficient at once. Oyle of Terbinthine and of Amber are good diauretickemedicines, and much more forcible then the former, but not fo fit in this difease, but rather good to drive gravell from the kidnies, and ferue well touching the cure of many cold and flothfull difeafes, as the Dropfie, Scuruie, Lythargie and the like. A vomitiue medicine is not amille in Fluxes whill the party hath ftrength, but the young Ar- The giving of tift may eafily make an error, fmall in fhew, which not- vomits require withstanding may quickly cost a man his life, wherefore a good indges if he attempt in fuch cafes to caufe vomite, as one principle ment. let him haue great care to the true dole of his medicines;

but

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but first let him haue good consideration, whether it bee conuenient to vseany such medicine, or no, for where eafier remedies will cure neuer attempt greater, but miltake meenot, I speake these things of love onely to children in Art, and not to graue Artifts, from whom I would gladly learne my felfe. Further I aduife the younger Artifls, not to striue to stay a Fluxe, as is faid, in a full body, till nature be first vnburthened, partly by the disease, and partly by medicines fit.

But as concerning Phlebotomie rehearfed as neceffarie in the cure of this difease, doe it not without great difcretion, and judgement ; for the Patient weakned formerly with fo terrible a ficknetie, and his fpirits fpent bleeding by a vaine, not aduifedly done may fuddainly ouerthrow and kill him, yet againe I must confesse that rule holdeth not generally.

CERTAINE SIGNES, PROGnoftications, and instructions which I hope will not be unprofitable for YOVTH concerning Fluxes.

ding the Flixe.

The fignes prece. THe Signes of the difeafe are alwaies manifelt of them-L felues, the fignes afore-running or demonstrating of the inftant difease are these following : Paine and torture of the intestines, or ventricle. Galentestifieth cap. 2. locorum affectori, in the very beginning of a Fluxe, faith hee, sharpe cholen is sent foorth, wringings, and as it were off-scouring, or off shauinges of the intestines appeare, then afterward there followeth a little bloud, and then beginneth the difeate Difenterie, and by the relation of the Patient it will often appeare if the paine be aboue or below the Nauill. A painefull flow expulsion of the excrements of the belly with small fragments bloudy and fatty do

doargue the higher intestines to bee affected, but if the griefe be lower, a paine below the nauill shall torment the Patient, then you shall see much fatnelle with fragments, infragments and and those fragments of the lower intestines will be more fat therewith. groffe and leffe mingled with the excrements. A Difenterie flaying popularly and killing many, may be adjudged contagious, and is thought to follow a pestilentiall constitution, and if in the times of a generall infection by the difease Disenterie, or Leienterie, a white Fluxe called Diarrhæa with Tenafinus appeare in the Patient, that party a little after shall bee afflicted with the Difenterie. The VIcers of the finall inteffines are more dangerous then the vicers of the greater.

Difficulty of the intellines, if it proceede from a blacke choller is held mortall : Aph. 24. Sect. 4.

Long difficulties of the intellines , hunger and weari- Mortal fignes nelle are euill fignes, and it is fo much the worfeif it bee in the Difenterie. with a feuor: Aphor. 3. Sect. 6.

Euery Fluxe especially if it be Difentericall, happening after a long ficknelle is mortall; but chiefly if it bee fuddaine, because it argueth a fuddaine corruption of humors and great debilitie.

A Fluxe drawing to a languishing dropsie is mortall.

If in Difenteria a blew fpot appeare behind the eare, the Patient shall die.

The Fluxes that are from the beginning waterill and afterwards like an vnguent are euill.

In all Fluxes of the belly, and in all other difeafes, of weaknetle of the appetite, inconstancie of the minde, heauineffe in fleepe, imbecillity of the legges, a hoarfe and barking voice, a weake pulle, beating often, paines ouer the whole body, chiefly about the belly, blacknetle of the face, or of a deadly of leadly coulor, and coldnetlein all the extreame parts : these aforefaid fignes foretell euill, but the fignes contrary to these aforelaid are healthfull.

The Hicket after an immoderate fluxe of the belly is mortall. Belching Ff

The excrement

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A good figne.

Belching following a fluxe of the belly is good, becaufe it is a figne that nature hath received, or againe begun concoction.

A bad figne.

Another good figne.

Generall rules for the cure of the fluxe.

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5

A fluxe of the belly which is not appealed by fit remedies is pernitious.

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.

In fluxes of the belly, changes of the excrements is a principall good figne, vnletle the change be made worfer, Aph. 14. Sect. 2.

In perturbations of the belly and voluntary vomiting, if fuch things are purged thereby that ought to be purged, it is good : but otherwife 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 fecond booke of naturall faculties that many are cured of it. Lienterie after defenterie is mortall: these Canons following belong to the particular cure of any fluxe of the belly.

No fluxe of the belly before the fourth day if the patient be ftrong, is to be reftrained.

The vlcers of the higher intellines 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.

To fuch as cure a Difenterie, let adstringent things be giuen before other meates that they may the better beretained.

Hot flipticke things are good in fluxes proceeding of a cold caufe: And on the contrary, if the concocting faculty shall be weake, the vse of hot things is likewise good. If there be a cough with the fluxe of the belly, the patient shall absteine from all sharpe flipticke things.

Sweating

red somewhat according to the main or minus, because it is an impoffible thing that the nourishment being conucied through fo many inteffines, should come forth without any alteration at all.

There are fome also which judge the Difenteres and the Tenafmus by motion of the pulse, that the patient hath a feuor if the pulle mooue swift; yet it seemes to me the contrary, although there is an ouer-heating or boyling in the bloud by realon of the hott humours, the great motion of the body, want of fleepe and abstinence : yet with the fluxe onely flayed, the feuor hath an end.

It is formerly faide that the vlcers of the great inteffines are to be cured with Glifters, and the vicers of the fmall intellines to be cured with medicines taken at the mouth: notwithstanding it profiteth to take fit medicines at the mouth for vlcers of the great intellines, and in vlcers of Remedies for Vl. the small guts to iniect glifters, which sometimes ascend cers in the inteto both the ventricles, as experience teacheth : and fo alfo fines. are vlcers in the great guts fometimes cured by medicines taken at the mouth ; wherefore let no convenient helps be omitted in case of necessity.

And though Auicena faith, it is dangerous to purgethe belly vpon a loofenes thereof, yet the fame Auicena, Gerardus, Cremo, Serapio, Iordanus de Turra and other latter Philitians of found iudgement prefcribe in the cure of fluxes Purgatiue medicines; therfore they appoint things according to the patients ftrength, when a Difenteria proceeds of many humours; or having an ill quality, the cure Galensrule if the as Galen witneffeth, hath one cheefe and most common Difenteria prointention: to that which is contrary to the disposition to eeed fro homewrs. betaken away : Therefore let there be given Myrabolans, which in this cafe 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 pestilenof Landsonn, tiall, let the matter be purged presently', as is faid, not refpecting the concoction of humors. OF

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Of Laudanum Opiat Paracelh, and the Vertues thereof.



Here are many difeafes which can hardly be cured without Anodine medicines, therefore in the cure of fuch difeafes, I meane where want of reft 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 doubtleffe with great reason and good warrant beinwardly giuen. To procure therfore fafe and quiet reft, fheweth great skill in the Artift, and to the patient is more precious in his grieuous infirmity then muchtreasure, but in no one infirmity haue such medicines more shewed their admirable vertues, then that noble medicine called Laudanum Opiat Paraceisi hath done tue of Laudani. in the cure of that lamentable difeafe called Diffenterie, or the bloudy fluxe, as witneffeth diuers of our nation comming from the East Indies vpon good proofe, as also being no leffe 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.

Thevertues of this precious Anodine to be, I meane heere recited, as they are noted and fet downe very learacdly by that famous writer Ofwaldus Crollins, late Philiti-Ozwaldmawrl- on to Matthias the third Emperour of Germany in his ter of the vertues booke called Bazillica Chimica, and not by him onely, but allo by divers good Authors of credit, which have written of the fame medicine before, which vertues being very many, may feemealmost incredible, though many of them

The sheefe ver-

of Landanum.

Of the vertues of Landanum Opiat Paracels. 225

them my felfe am witnelle to betrue, out of my daily prachife onely, they are ment by the true composition, according as Theophrastus Paracel/ms hath prefcribed it, and is the same composition which the fayd writer mentioneth,

Touching the vertues of the medicine.

THis Laudable medicine (faith Ozwaldus Crollins) de- Ozvaldus con-I ferueth rightlie hisname, although thou callit Lan- num. danum, 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 fame, this precious medicine giueth eafe prefently, yea and quiet Landanum more fleepe, and that fafely, but much better the bodie being first efficacious if the foluble, either by nature or art, and you may give it fafely, body be foluble. prouoking first onely one stoole by a suppositorie, or a glifter were better : in the collicke with Mint-water, it eafeth the gripings foorthwith. In the paines and grauell of the kidnies, likewife it giueth present ease. In the pluresie it presently and fafely giueth eafe. In paines of the ioynts it is very good. In the flaying of rheumes, as tooth-ach and other like defluxions in their beginnings, it is a fingular good medicine, as namely in the tooth ach, diffolue foure graines thereof in Plantane water, and put it into the eare on the aking fide, and take three graines into the body, and lieto reft, it is a fure helpe. In all fluxes of the belly, whether they proceede of sharpe or slippery humors, or whatfocuer elfe offending caufe taken with masticke, Terra Sigillata, fine Bole, or with any other appropriate good medicine, it is exceeding fure, for it fortifieth the other medicines, and doubleth their forces, adding his owne alfo thereto. In extreame watchings and want of reft, either inwardly or outwardly taken, it is profitable, if outwardly you would vfeit, take foure or fixe graines, with three drops of oyle of nutmegs, which is prefled out mixed together, and binde it in two little clowts, and put it into the noftrils,

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noftrils, it will maruelloufly affwage paines in the head, and caufe quiet reft. In the extreame bleedings of the nofe called Hemoragie, it is an approoued fecret, that fixteene graines thereof diuided into two pils, and thruft vp into the noftrils, into each noftrill one part, helpeth the fame. In all kindes of feuors it is good to bee giuen with water of worme-wood, or pill-wife alone, and if the heat remaine after fixe houres, you may giue it the fecond time, and after that againe in like time fafely, not exceeding the dofe : yet let your owne experience lead you, that where you fee three graines will not caufe reft, in the next potion you giue one graine more, and fo increafe 'paulatim, but increafe not but vpon good deliberation.

In burning feuors it alfwageth thirft, and prouoketh fleep cheefely in those feuors, in which the party seemeth to have some shew of reft, with tedious dreames and flumbrings mixed.

In the difeafe called Althma, and in the Tylicke, if it be vled in water of Hope, it will preferue the difeafed patient a long time.

It conferueth the naturall heat, strengthneth the spis rits, repaireth strength lost: It is also effectuall to bee giuen to melancholly people which are voyd of reaion, and are troubled with the passions of the heard. It is likewise vied with good effect against vomitting, and the hickocke proceeding of winde, faintnesse or debillity of the uentricle.

In the fuperfluous defluxions of the excrementall or menstrual bloud, it is an excellent remedy with Crocus Martis, or red corrall.

In phrenfies or madnesse, both inwardly and outwardly it is good mixed with Aqua vite, and the temples annoynted therewith.

In the falling licknes with fpirit of Vitrioll, or the quinteffence of Camphire, with alfo oyle of Almonds, it is vfually taken. The dofe of this opiat medicine, is two, or three, or foure graines, if there be loofenetse of the belly,

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as is rehearled, it worketh much the better. Note that in fome parts of the world this medicine in the mentioned dose will doe no eafe, wherefore when you finde that by experience, in the next patient giue more, but not to the fame patient without great reason. It is best given in any occasion accompanied with waters or other medicines, The bift way to which are most appropriate to the discases and parts dis- administer it. ealed, and yet may very well bee giuen alone in a pill, which I willingly do, for that the patient then is leaft troubled with the tafte thereof.

But beware you vsenot this medicine to any, which are A caution refeeblethrough a great cough being oppressed with tough markable. phleagme and fhormes of breath, for there it is not good: if the difeafe be violent, as I have fayd, one dofe may bee giuen after another, with fixe houres at the least diffance, very fafely, but Ozwaldus Crollins faith, within foure howers, as is laid in the cure of Difentery.

In a word this Landanum paffeth all other medicines in the cure of Difentery, for which caufe I have published it to The caufe of the benefit of the yonger fort of Surgeons, which aduen- this defcription of Landanum. ture their lives toward rhe East Indies ; I know it is prefumption in my felfe and deferues blame, that I thould handle medicines of this nature fo copioufly, for which I craue pardon from that grave and learned Society of Phyficians of London, whom of right I ought to reuerence, and do : exculing my felfe that I have doneit meerely for the behoofe of young Sea-Surgeons in the remote parts of the world, where they otherwife haue vied Opinm in common, without vnderstanding the danger or dose thereof, to the lotte of many mens lives. It behooueth young men to bee carefull to carry with them fuch 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 fuch needefull inftruments. This Laudanum I effecme fo fufficient a medicine truely prepared in all causes, where an opiat medicine is

Nete.

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Laudanum excelleth all other Opiats.

Becaufeofbis duration.

is required, that if I were vpon my life to morrow to vndertake a voyage to the Eaft Indies in any great thippe, I would renounce all other compositions of that kinde whatloeuer, rather then mille it : yet am I not ignorant of diuers other good compositions of opiat medicines in daily vie, as namely Philonium Perficum Romanum, nic. 3 mef. Roman. Seu Tarcenci, Athanafica magna, Aurea Alexandrina, Trifera magna nic. Diacodion, Diascordion, and many more, for all which I onely would take the true Lau. danum opiat Paracelfi, for when the reft had fully fermented at fea, 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, euen then and twenty yeeres after their deathes, may any man relie vpon the aforefaid Laudanum, as a true medicine, which medicine notwithstanding, I know it is vnposible for the Surgeons Mate to prepare at fea, yet for that he should be the better fatisfied, when heehath occasion to vieit, I thought it not amilfeto fet downe theingredients, with alfo the true forme of the preparation thereof in bac werba, out of Ofwaldus Crollius being one of the belt I ever found orread, that are a set of a bog offer you no

Laudanum Paracelli Laudatiffimum, and the true preparation thereof.

bellookaar yuung San-aurgeons in the remoti parts of

- Rt. Opig Thebaici uncias tres.

Succi Hyolcyami debito tempore colletti, & in Sole prius inpiffats unciam unam & fem. pecierum Diambra & Diamoschi fideliter, difpensatarum, ana oncias duas cum dimidio mummie transmarine & selecte unciam sem. Salis perlarum.

Coralloram ana drachm, iy.

Liquoris Succini Albi per Alcohol Vini extracti, Offis de corde Cerni ana drachmans j. Lapidis Bezoartici.

Unicorum

Of the vertues of Landanum Opiat Paracelsi. 229

Vnicorni animalis vel mineralis drachmam vnam. Moschi.

Ambra ana scrupulum j.

In defectu genuini auri potabilis nullis corrosiuis inquinati addantur,

Oleorum

Anifi. Carui. Arantiorum. Citrorum. Nutista. Cariophillorum. Cinamomi. Succini ana gutta 12.

Fiat ex his secundum artem chimicã, massa, seu extractum, ex quo ad necessarios vsus, possint pillula efformari.

Obsernations in the preparation of this medicine.

Re The roots and rindes of the younger Hemlocke, caffing away the inward woody part thereof : the time of the gathering thereof is the Summer, the Moone being in the ligne Arres or Libra, and before the full of the Moone, thering them. and if it might be done it were beft to bee gathered in the very houre the Moone is entered into one of the faid fignes : this obferued, let the luice thereof be preffed out, and filtered, and coagulated, then fet in the Sunne to harden, which done, extract the tincture thereof per fpiritum, of the inice exvini : the opium ought to be purged in fome diffilled water, preffed. as of liope or the like, as Aloes is vied to bee purged; and after, the tincture thereof to be extracted per fpiritum vini, the tincture of the Species Diambra is to bee extracted allo per fpiritum vini.

The inyce of Hio/cyami, or Henbane with the extract of Opium mingled, together with the fpirit of wine, wherinto they are extracted before, is to be enaporated fro them ere that they bee mixed with the reft of the ingre-Gg z diences.

230 Observations in the preparation

diences. Alfo the opium and invce of Henbane muff bee digefted in chymicall manner for a month at the leaft, that thereby their fulphurous, venemous, and dangerous vapours they have may be well corrected, which vapours haue a yellowish froth or fcumme seene in the superficiall parts of them, and are very obnoxious and dangerous, which I thought not amiffe to aduife the fludious and induffrious Chymift of.

Let all the extractions be done in the true spirit of wine well rectified, and then the longer the extract remaineth in the digeftion, the better will be your medicine.

Hee that intendeth any part of this composition for women, mult forbeare the muske and ambergrece, and vfe with itrather foure graines of good caftorium, I meane in that one dofe he intends to give the women; but in this I digreffe from my fcope of the Sea-practife, where women in long voiages are rare creatures. Wherefore to the bulines in hand : the feces of the opium hiofcyami, pecierum ambre co, after their tinctures are extracted from them, areto be calcined and brought into falt : namely by infufion in fome fitting liquor, after calcination, with allo due filteration, euaporation, and coagulation with Cohobs The 11050 of 9.24 convenient, and added to the reft of the composition. sistering there,

> And concerning the tinctures mentioned to be extra-Eted in firitu vini, after one monthes digestion the firitus vini is per balnes m marie to bee euaporated till the relidence be almost of the thicknesse of honey : which done and gathered cleane into one convenient glaffe, porringer, or the like instrument, then adde the falt corallorum, per larum, Mumia beaten fine, and allo the Bezer, and the cornu cerui, mu(cus and ambra altin fine pouder, and well mixed with the faid extracts, then adde the aforefaid falts of the recited feces, and also the former recited oyles, all of them first mixed together with the Liquorice and Succini flaken well together in a glaffe violi with a few drops of fpiritus vini, for that the faid spirit of wine causeth the recited oyles well to incorporate, which done, and that they are mixed

A pecial ob-Seruation.

A digreffion.

Extraction.

Calcination.

Ensperation:

The manner to finifb the composition.

of this medicine.

mixed all in one and added to the former, the Laudanum, is ready, onely if you could forbeare your medicine fo long that it might afterwards ftand in a fmall Alimbecke of glatle, with a blinde head one month, it would be much the better.

This medicine though it would put many that professe To compose this much knowledge in the Arte of the Apothecary to their Opiate aright trumps truly to prepare it, yet to an Artist 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.

I haue the rather explained this medicine for that fo many groffe and dangerous compositions are daily hatched vp, and vitered abroad for currant vnder the name of Laudanum Paracelfi opiats 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 honeff Chriffian. And for that the younger fort of Artifts should not easily bee deceined with falle compositions, though I confetieit is not possible to espie fome cunning Markes to difdeceits which may passe in farre plainer compositions cerne the falfe then this is, yet take these few notes following when you from the true would buy it, for remembrances. First note, that the medi-Laudanum. oine is falle if it be vneuen, I meane if it haue any course or groffe thing in it, fo that it will not all clearely diffolue as a juice of Liquorice well made will.

For this is an infallible rule, extracts are the pure parts of things, and will wholy diffolue, or be diffolued. Further note, that if either hony or fugar be found in the medicine, it is falle.

Alfoif it be more liquid then the ordinary balls of Liquorice made vp in London, it is false or foolishly made, and will not keepe.

Alfo if it retaine the lothsome smell of Opium, it is not to be trufted.

Alfo if it be not meerely of one coulor, fo that you fee nothing of the ingredients appeare at all, it canot be good. For

Gg 3

Notes of the true Laudanum.

For affure thy felfe this composition truly made must be fmooth, and well smelling of such an indifferent hardneffethat without additions you may roule it into pills, and is not greatly ponderous or heauie, but it is of an vnpleafant talte, I must tell thee, and therefore I vse to give it, as I haue faid, in a pill, except necessfity by weaknesse of the Patient when he cannot swallow a pill, vsge the contrary, or that I vse it in outward griefes, as toothach &c.

Illiaca Pasio.

Illiaca Paffio.

A fearefuil vifitation.

Illiaca and Celica differ in place. Leos or Illiaca Paffio is a most painefull difeafe, proceeding from an obstruction of the small guts, which suffering nothing to passe downewards cause tha great wringing and paine, so that many which are oppressed with this difease doe perish, and die a very miserable death, ending their daies with their feces, or their owne excrements issues out at their mouths, and it is many times noted for a difease infectious.

This wofull kinde of belly-ach or Illiaca paffio, differeth from the collicke in the fituation, in that it hath his place, and being in the fmall guts, and the chollicke only in the great guts, fo that a vomit fometimes giueth eafe herein; but glifters feldome or neuer giue any helpe, for that feldome any thing will be broughtforth downwards though the glifters be neuer fo ftrong : but herein the help that is to be hoped for by glifters is farre better effected by the glifter firing, then by the glifter bagge, for one may deliuer it with that inftrument with as great force as you pleafe.

Caufes.

TOTAL STREAM STREAM

The caufes of this difease are almost one with the chollicke, both which are obstructions in the small or great

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Iliaca passio.

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great guts, and proceede chiefly of three caufes as faith Dominicus Leo : namely

- 1 The drineffe of the ordure, or excrements.
- 2 Absceffus, a bile, or a botch in the guts.
- 3 Thicke and driehumours.

Alfo this difeafe fometimes commeth by diftemperature of the ayre being very cold, alfo by ablow or bruife vpon the gut *lleon*, the inward caufes may be very many, namely by drinking of poyfon, or cold water, meates of hard degestion, binding of the belly, and such like.

Signes or tokens.

THE fignes or tokens whereby this difeafe 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 moo- A fearefull voueth heauy and fore vomits, fo that the very feces are vo. miting. mited vpward, of which difeafe or greefe fcarce any in that kinde doe escape, as Galen witnetfeth, 16.6.cap. 2. I haue feene the like in a Rupture by reafon of a part of the gutte Illion that was fallen through the Peritoncum into Scrotum that could not bee reduced, the ficke vomited his excrements, and died the fecond day. Alfo much watching fometimes caufeth great paine in the imal guts or Illeon, vnreft, ftrong Conuultions, cold in the extreame parts, and if any feces be gotten forth of the fundament by any meanes they being put into water will fwimmealoft. Item Note. if this griefe come of poyfon drunke, then the Patient will fuffer Tremor Cordis, foundings, debility of the faculties of the body and vomit, doe commonly goe before the pangs, and all these aforesaid fignes are viually more vehement and stronger then in the Collicke.

Prognoflica.

W Hen the Illiak commeth with diffilling or dropping of Vrine, the party dieth within feuen daies, Galen

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Iliaca passio.

Galen aphorif. 44. except an Ague happen fo that in the meane time sufficient quantity of vrine doe come,

Item, vomit the Hicket, foolifhnes or idle conuulfions are euill fignes, Anicen vpon the 7. aphor. 10.

The vomiting vpward of the excrements, are deadly, A deadly figne. yet young folkes escape in this disease somer then olde folkes.

> The Ileos, where the paine doth change from place to place, is of least danger: because it dependeth or proceedeth of winde, which is eafily refolued.

> The breaking of windevpward or downewards, and flinking much, is euill and deadly : as alfo the excrements much flinking is the like.

CHTA.

N the cure of this difease no Philitian or Chirurgion, re-If pecting his Credit, will take upon him abfolutely the cure thereof, especially if the Scuruy be confirmed in the Promise no sure 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 difease differeth little from the cure of the Collicke, and may be differently vied, and is all one, but that onely the ftronger medicines, and greater diligenceis to be vied in this Illiak, then in the Collicke: which if it were on fore or land, much more good might be expected, where aire, diet, place, and many other helps, observations, and confiderations according to the quality of the difeafe, with aduice also of the learned Phisitians observed, all which the Sea affordeth not.

> Certaine breefe and speedy notes for the Chirurgeons mate at his neede, when neither Doctor, Chirurgian, nor Apothecary is to be had.

lista of poyfon. TIrft, if the difeafe come of poyfon exhaulted, a vomit I with warme water, and then warme oyle, or fome fat broth is to be administred, and after a day or two some good trekle to be vied. by gran and shirt to

Another.

A good figne.

Obsernations.

Iliaca pasio.

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If the caufe come of crude meates remaining in the ftomacke, or that the difease come of crude and raw meates, a vomit is to be vied.

But if there be no crude meates yet remaining in the Stomacke, then all meanes must be vied to difperfe the winde, and to draw the excrements downward, eyther by Of potions and potions, glifters, and fuch like : and first with glifters to glifters. fupple the guts, and to enacuate the obstructions of the lower parts : make therefore a glifter of common oyle, or Lin-feed oyle, and giue him, or a decoction of Marchmallow rootes, Comfrey rootes, Linfeedes & Fænigreek, adding Bay berries & oyle of Dill, and Puluis Arthreticus, or species Hierz Pigra Zvij, giue this glifter with the great firing, and put it vp with good force, remembring to adde falt, one small spoonfull thereto. Also you may vie suppolitories, and all other helps which are proper in the cure of the Collicke : or a mixture of honey and falt-Peeter, or Niter to anoint the fundament therewith, and vie fo- Fomentations, ments with fpunges,&c. as in the Collicke. Alfo Phlebotomy may be vied, especially in young men, and that in Sommer, or warme Countries, especially where the difcafe commeth of an Apoftume, or botch: Purging potions are alfo good, as Puluis Arthreticus 3j, in wine or beere, or Aquila Laxatina 12. graines in a pill or in beere diffolued. Moreouer, Refolution of the matter is to be made with foments, with cloth or wollen flupes wet in oyle, wherein Dill, Chammomel, Rew, Hollyhocks, &c. hauebeene boyled, and applied very warme. Also Cataplasmes made of Barlymeale, Cummin, Rew, Linfeed, Fenigreeke, Dill feeds, Annifeeds, Fennellfeeds, Bayberies, and the like, are very conuenient.

Alfo the patient is to fit in a Bath made of oyle and water, wherein are boyled Cammomell, Mellilot, Dill, Al- Cataplasmes. thea, or Hollyhocke, Rew, Bayberries and the like, are good helps.

Nota Stereus Lupinum is a remedy in the Illiacke paffio, A firange meeuen as album Gracum is in the angina. Alfo Hh

Colica pasio.

Alfoold Treakell and Mithridate are good helpes for those which cannot hold their meate, and you must give them to drinke the powder of Thus or Frankensence, and Cummin-feedes in warme oximell.

To conclude these breefe notes, I with the young Artill in this miferable difease, to try by flrong glifters and purges, and every other good meanes which is warrantable, and not strictly to rest upon these short instructions, in cafes difficult and dangerous.

Collica passio.

Ollica paffio is called in English the Collicke, and it is

bed.

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How it happen neth.

called a passion, because the paine thereof is fo great The paine deferi- and vehement, that many times the patient defireth rather to die then to liue in that vehement paine. This difease hath his name of a gut called Colon, and happeneth very often when the excrements are retained beyond their naturalltimes and Cultomes. This infirmity is engendted of ventofity, or winde in

the gut Colon, and cannot get out, forntimes it proceedeth of collericke humors, and vntemperate heat which drieth vp the ordure, & hindreth the egeflion of man:allo it commeth fometimes of cold and dry diftemperatures with increase offatnes, making firict the pallages of euacuation of the excrements, and by weakening the expulsive faculties. Alfo this paine proceedeth fometimes from the humors of the flomacke, gathering winde from the liver and milt, fometimes from the raines of fuch as have the ftone. Alfo from an Apoflume in the wombe, and fometimes 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 diftemperatures, but neuer of moift, as faith Dom. Leo.

event Lupunde is a cincely in the Idiachepaffies & fromgener

ALLO

anning and an an anna is in the anging

He fignes or tokens of this passion are both generall wistionis L and speciall.

Colica passio.

Signes.

Generall fignes are vomiting, lothing of meates, great Vomiting a figne paine, retention of the excrements, vnreft, greefe or paine in the fore-part of the belly, conflipation fo great, that Coffimenes a it will goeneither vpward nor downward, the Vrine tin- figne. cted, &c.

The speciall or proper accidents that doe alwaies accompany the Collicke are continual thirft, vomiting of Continual thirft. choler, watchings, by lofe or chollericke excrements, a straining or wringing paine, though not long enduring, and young perfons in the Sommer are molt fubiect to a loofe chollicke : but the tokens or fignes of the state of a cold body in old age, are flowneffe and lazineffe, much desire after groffe and cold meates, rawnesse, Nausea, or quelinelle of the ftomacke, ready to caft, but cannot, Pitrofity or flimy vomits, little thirst, the paine more remille but longer continuing. Rumbling of the belly, defiring to drinke cold water, or fmall drinke. Longing after all Beware of cold manner of fruits, and white meats. The paine changing drinke. from place to place, and the feces to fwimme, being put in water, and very many fuch like fignes too tedious to trouble the Surgeons mate withall at this time. Auicena Authority. faith, that amongst outward fignes of this difeafe, if the patient licke of the Collicke haue certaine fmall whelks or puffies arifing vpon his belly, about the bignes of a beane, vlcerating and continuing aboue two daies, it is a figne the patient will die of the difease : Alfo when the Chollick doth not giue place to Gliffers, Foments, Motions, Cataplasmes, and fuch like good remedies: you may then with Galen 12. Methodi Medendi, judge that biting humors doe 2 Authority. potsetle the tunickles of the guts, but if the difeafe yeeld or giue way thereto, then the matter of the difease is contained in the cauity or hollownelle of the guts.

Hh 2

The

Iliaca passo.

The Collicke still continuing with vomiting, cold fweats, often fobbing or the hicket, and not giving way to remedies administred, is deadly.

A pestilentiall Collicke, or contagious Collicke, doth almost alway kill.

A Collick with feces voyding flimy fubftances, though an Apoltume be in the greatelt guts, yet it is curable.

The Collicke proceeding of winde is eafily cured. An cafie or good breathing, or taking breath is a good figne in the patient that he may be cured, but difficult breathing fheweth the contrary.

The Cure.

Metbod of the CIUTC.

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He maner of curing the Collicke is effected by renewing and taking away the caufe, and then the paine vanisheth : But to remooue the cause, many things are to be put in practife, as preparing the humours euacuation, remission and resolution, all which require fome long time, and therefore other meanes are first to be vfed to take away the paine, or at least to mittigate the Anodines firft. fame with Anodine medicines, and the due application of convenient helps of warm and moilt temperatures, which Narcoticallme_ not helping, you must againe have recourse to Narcotidicines if neede. call and Stupifying things, which indeed are not to be vfed, but in great extremities to give the patient fome prefent eafe.

> Anodine medicines are to be administred fowell inwardly as outwardly, as first inwardly, namely in gliffers confilting of moilt and fat fubitance, as the decoction of Chamomell, Dill, Linfeed, Mellilot, Mallowes, Hollihocke, Fanigreeke, Bayberries, or fome of thele, with one ounce of the new extract of Caffia, and fome fugar, with linfeed oyle and butter administred. Outwardly, these are to be applied, eyther Vnctions, Cataplaimes, Fomentations, Baths, or fome fuch like convenient medicines, as time and place beft fitteth.

> > But

Iliaca passio.

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But if these should not helpe, then in great extremities, you are to flie yet againe to Narcoticall or stupifying medicines, as namely Landanum Paracels, which exceedeth all Narcoticis : or Philonium Romanum is also a good medicine : these are only to be vied 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 deceiueth himselfe. If the Collicke come of winde, then you must apply warme resoluing medicines, I meane dissoluing and dispersing medicines.

Notes to be confidered 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 A saweat. loofing 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 Glissers and haue a full stronger. But before all things, if the patient Glissers and haue a full stronger, be administred.

Repletion or ouer-fulnesse, as well as too much fasting is to be auoided.

Thirdly, no Agarick is to be vied in any of your medicines for the Collicke, because that cleaueth to the guts, and bringeth most terrible paine and torsions, yet Stokinus Deware of Agaa learned Germane writer, doth highly extoll the same to ricum. be put in Gisters to give present case.

Fourtbly, you must by cordials have a care to preferue the Liver, heart, and head, least they be hurt or offended by the vapors, and ouer much heat of the oyntments, ca-Hh 3 taplasms,

Colica passio.

taplasmes, and fomentations which are vfually applied to the parts agreeued.

Fiftly, in the beginning ouer vehement warmings are to be auoided, especially, if the Collicke proceed of the dryfeces; for thereby they be the more dried.

6 Sixtly, cold water is to be auoyded, and not any waies A fecond caused. to be permitted to be vied to quench thirst withall, but rather let the patient vie fome stewed prunes, Iewlip of Violets, conferues, and such like; or a barly water, with a few drops of oyle of Vitrioll and some licoras are good.

> Specificall things that cure the Collicke are very many, as horfe-dung drunke in wine, hares dung or hennedung drunke in Oxicratium, where fuch may be had. Alfo the pouder of Harts horne, corrall, cockell shels burnt, or swines hoofes burnt or Calcined till they be white, and fuch like, according to the diuersity of the causes. Further in the particular cures of this difease, there are very many things observed by the learned Philitians, 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 observed at fea, onely fish and waterfoules are to be avoided as much as may be.

> 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 fundry intentions to be observed.

The first, to mollifie the feces, and supple the guts.

Secondly, In Euacuating, to discharge the belly.

Thirdly, to remoue or take away the caufe of exficcation, 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 fweet almonds, or a decoction of *Polypodium*.

The fecond thing which doth bring forth the mollified feces

Specificall remedies.

A caucat.

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The Care.

Colica passio.

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feces or excrements is Caffia 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 difeafe; as ouerwarme ayre, ouerfalted dry meates, and small quantity of foode, falling, watching, melancholy, and the like, and inwardly to helpe the weakenesse of the expulsive faculty, with Treakle, Mithridate, Conservares farum, or the like cordiall helps, helping also the expulsive facultie with glisters and such like good things: For further inward remedies you may vie the aforefaid glisters, or halfe a drachme or 3-j. of Sulphur viuum drunke in good warme wine, and the belly well applied with warme clothes helpeth fomewhat.

Item, Carawaie feedes made warme in wine, but not boyled therein, being drunke helpeth.

Item, a glifter made of Sope and Hony is a prefent remedy.

Item, a bagge stuffed with branne, and made very warm fprinkled 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 fpunge, or cloth warme, in manner of a foment, healeth the Collicke, and driueth away wormes, and ceafeth 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.

TEnesmus or Tenasmus, as Hypecrates calleth it in his fixth Aphorisme and in the feuenth booke, is a discase, The definition of intention, or straining about the right gut called intestimum Tenasmus, restum, being opilate or stopped, and of some English wri-

Tenasmus.

Tene mus.

ters it is called Costiuenesse. This difease as Galen faith in his fecond booke De methodo medendi is when a man hath an extraordinary prouocation, luft, or defire, and a vehement straining to go to the stoole, but cannot voide any thing at all, except fometimes fome fmall quantity of flimy matter, which now and then is mixed with bloud, or a bloudy fubstance, and the extraordinary defire of egeftion or going to the floole not cealing.

This difeafe proceedeth of divers caufes and accidents, Tenafmus out- both outwardly, and inwardly.

Outwardly by cold, comming accidentally to the hinder parts, or arlegut, as the long litting vpon a cold ftone, vpon iron, a bord, vpon the cold ground, or any hard thing, whereby the Sphincture, or round muscle compaf. fing the ftraight-gut is preffed, or brufed. It commeth al-Bathing incold fo by intemperate heate, and drought, and corruptnesse of the aire and weather : fometimes by long bathing in cold water, and fometimes by much vling narcotiall ointments, and fuch like. Alfo inwardly this difeafe proceedeth of falt biting humors abounding throughout the whole body of man : also by meanes of fome hot or colde Impostume, or after a Disenterie, or Fluxe, whereas fome chollericke matter remaineth behinde inthe rightgut yet vneuacuated. And fometimes it happeneth here in our Countrie, as fome English Writers affirme, by little drinking of beere or ale, and fometimes it commeth by Tee much drin- drinking too much wine, and by eating of coffice meats, and superabundance of choler adust. This difease is of the nature, or disposition of a Disenterie or Fluxe, but that the Difenteric paineth the Patient with grieuous tortions through all the guts, but Tenasmus paineth the Patient vfually in the right-gut only, as appeareth by Galen in histhird booke De causis Simptomat. And Traianus in his vj. & fympt.lib.3. Chapter, and viij-booke, who affirmeth the fame, faying, Traian. cap.8. Tenasmus recti intestini test effectus &c. The fignes and tokens of this difeafeare chiefly to beeknowne by the Patients relation of the temperature of the body, flender diet, and

Theraufesof ward and inmard. Outward as Colde. Heat. Drought. A corrupt aire. water. Narcoticall oyntments.

Inward as Cals humors.

king of wine. Mature of Teesa men.

Gal, de caufis lib.6. The fignes of Тепа/тна.

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Tena mus.

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and egeftions, whether it be hard or coffine, or elfe thinne or liquid.

In Tenafmus the paine doth not afcend fo high as the Thepaine defiris nauell, but is chiefly felt with heate, pricking, and burning with a defire of egeftion in the end of the fphincture, the excrements being of a yellowifh coulor in young men (like their flarching now adaies) but in old perfons the excrements are of a more pituofifh flimie and bloudie fubflance.

If the difease proceede of an Impostume, the Patient will seele a continual paine, and the more augmented and grieuous when he goeth to the stoole.

Prognoffica.

Tenasmus after a Disenterie is most harde to bee Necessary obser-

Tenasmus in a woman with childe causeth oftentimes abortion, sobbing, yexing, or the hickoke is very pernitious, and betokeneth much drinesse.

Tena/mus long continuing, bringeth the Collica and Illiaca Paffions: Sounding and difeafes of the head.

Tena/mus is not numbred amongst long nor sharpe difeases, for that it is soone cured, and if the Patient do ease and drinke well there is no danger.

The cure.

Tenafmus is cured by taking away the caufes thereof, from whence it doth proceede; as if it come by outward cold, then let there bee applied to the Ofe pecken, and hippes warme, refoluing fomentations and applications, as bagges of millium with falt, being rofted or fried, or fackes with branne fodden in wine, or water, and fo applied as hot as may be fuffered, and the fundament and parts annointed with oiles of Rew, Lillies, Bayes, Vnguentum, martiatum and fuch like: Alexander in his 6. Chap: and 8.

244 Of the falling of the fundament.

booke faith, Tenafmus is cured with foments of Fanigreke and the roots of Althea, being boiled and injected into the belly, and alfo the Patients hinder parts well fuffumigated with the fame decoction, the Patient being compaf. fed about clofe with clothes, and fo fet ouer it, and then the fundament afterward annointed with oyle of Rofes, fresh-butter, or goose-grease, with wax ditlolued, Beares and Capons-grease and such like.

Item, A fume of Frankensence and pitch, being cast vpon burning coales, and the Patient set close ouer the fume, helpeth prefently.

Item, To give prefent cafeto that paine, let two bags be filled with wheaten-branne, and fleeped in boyling vineger, and the Patient to fit thereon fo hot as may be fuffered, 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 special instru-Etion in administring aglister for Tenasmus.

 Item fuch glifters as are vfed in this difeafe fhould not
exceede halfe a pound, and the glifter-pipe to be put into the gut not aboue two fingers bredth at the most in length within the gut.

Concerning exitus, velprogressus, velprocidentia Ani, in English, the falling of the fundament.

Children more fubicest to this difease then old people. This difeafe for the moft 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 here to amplifie, hauing no intent to set out my worke in painted phrafes, for I would onely arme the Surgeons Mate how to proceede in the cure therof at set, and yet I know the same will take good effect also at land where that difease happeneth.

The

Of the falling of the fundament.

The Caufes.

"He causes of this greefe are too many to bee named, cause of the fal I the figne thereof is manifelt, that it is a refolution or a ling of the funrelaxation of the muscles of those parts : whereby the gut dament. flippeth or flideth downe lower then the naturall place therof, namely out of the body.

The cure of this greefe is for the molt part fhort, and likewife if the patient at fea be carefull & goe not out to the fhrowdes or Beak-head of the fhip to ftoole, neither in going force the expulsive vertue of his body ouermuch, it will not eafily fall downe againe.

It is cured as followeth, namely at the first going out, The Cure. vle no other remedie then a warme foft clowt and thy hands, and gently returne it into his due place, and let the party after it is reduced, fit on a hot board, or haue a very hot napkin doubled and applied to his fundament, and another to his belly : but whereas this difeafe for the most The Cureif it part proceedeth from the fluxes of the belly, in fuch cafes fluxes of the you mult proceede to the cure of fuch fluxes, and that ef- belly. fected, you shall heare no more of this accident, but if it vfually fall out, it is the more dangerous, then you may The Cureifit proceede as followeth, set the party ouer a close-floole, vsethoftentofal and fume the place as warme as hee can fuffer it, with a downe, fume of Thus, mallicke, amber, rolin or pitch, or any one of these, and being fumed well and very warme, bestrew. the gutfallen downe with Album Greenm well powdered, and fine, for this is precious though a homely medicine, but therewith this difease is cured, and many other infirmities alfo, but there is a great care to bee had to the powdering and well fearling of the fame, for that it is often full of tharpe peeces of bones very dangerous : I fay therefore this being carefully prepared, and applied with The putting of it warme foft clowts and warmed hands put it vp, and let the vp. party asit were endeauour to draw in his breath in the belp required. doing therof, for it will with eafe be brought vp: & being thus Ii 2

Of the falling of the fundament.

thus put vpinto his place it falleth not eafily out againe, the fame effect hath burned Harts horne powdered, or any other hard bones burned into white powder, arevery good, powder of Gall apples or Gals is thereto a good medicine strewed on as the former, Pomegranate Pils powdered doth the like, and Balaufties or, Sumach is alfo A Fomentation, good, being powdered and frewed thereon. Alfo a fomentation very warme of fliptick drying things are good, as for example. R. fresh water, heat and quench pee. ces of iron or steele often therein, if it can conueniently be done : if not, only faire water, a convenient quantity about a quart, boyle therin the quantity of one large Gall, put to it a little Allum about Zij. a little Succus Acatia fome 36. or letle, cynamon if it may be had 36. or pomegranate rindes 3-j. if you haue them, or Baulausties 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 what foeuer you vie by way offomenting or otherwife, each thing be actually very warme you apply, or they will endanger him. It will likewise not be amitse, if you addea little good Aqua vita or Rofa folis to your fomentation after it is boyled, especially if your decoction be water. Beane flowre is also good to frew thereon when you goe to put it vp, but Albums Grecum is the best thing you can vse, masticke in powder is alfo a very good medicine to frew thereon, vie as little force, as may be, in putting it vp, and have ever ready a Chaffendish with fire, when you goe about that worke, to warme clowts, and your hands alfo. And if you finde it difficult to be reduced, let the pasty be fer on his head and hands, with his legges abroad, and it will helpe tomewhat, but beware hee fland not fo too long, but rather let him rest and beginne againe, or kneeling on his knees and elbowes is alfo good, onely let him remember that he draw in his breath, as I haue faid, for that auaileth much, and let him not feeke to clofe or draw together his fundament as little

A peciall cantion.

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The Patients belpe very needfull and profitable to himfelfo.

Let the patient hemare.

Of the Callenture.

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little as he can, till the gut be reduced to his place. If vpon occasion of the flixe you bee constrained to vse conforta- How to preuent tiue or restringent glifters, which also your Laudanum it in the time of you shall not neede to feare, but it will keep vp: or if these the flix afflicting things helpe nothing, I feare he is hardly to be cured, but they have never failed me, and so I conclude to the honor of the Almighty concerning this diseafe.

Of the Callenture.

The Callenture by all my experience, or what I can gather from others, is no other thing then a contagiure is. ous feuor, for the most part fuddenly atlaulting Sea-men, fometimes it is with paroxismes, fometimes continuall, The quality of its and hath fits hot and colde in fome, and that very violent, euen to the lotse of fences and life also.

The Canfes.

The caufes thereof are diuers, as namely the intempe- The etafes rature of the Climate, or degree of the world caufing thereof. an euill habit in the bodies of men, when they come into fuch contagious aires, The euill nutriment the Sailers haue at lea strong obstructions, the abuse of them The fignes, felues in diet and customes, and diuers other reasons too long to infisst ypon.

The Signes,

T O bebreefe, the fignes are a strong feuor, a generall The curation and sudden distemper oft times, both of body and whereon it conminde at one instant, or an inclination thereto.

The Cure.

The Cure confifteth cheefly in cordials, Alexipharmas cons or preferuatives, that the animall, vitall, and nali 3 turall

Of the Callenture.

turall parts may be defended from the venomous danger of the difeafe in euacuation, and in regiment of diet, all these being as sodainely put in practise as time will serve, the difease being sodaine and serve in it selfe.

Of Cordials.

A Cordiall potionfor the Callenture.

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Present Cordiall medicine fitting to be given in the Callenture is Venice Treakell or Mithridate 3j. or London Treakle, or Diatelleron ZB. with Sirupe Limoniorum 3j. Plantane water or faire water, 3iij. oyle of Vittioll fix drops, or fo much as to make the drinke tart, and one hower or two houres after give him another dole thereof, and foorthwith also let him haue suppository or glifter giuen him, and to foone as he hath had one ftoole therwith, 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 fuppolitory, a glifler were not amiffe to beegiuen him, namely a decoction of march mallow roots in water, adding in the end of the decoction offalniter 3-iiij. of species Hure 3-ij. Oleum Sambuce Zij. thefe will coole him well and clenfe him.

And if further neede of purging be, giue him a dole of Aquilla Laxatina.or Aquillavita, a dole, which in this difeale hath been approoued very good.

The Aquilla Laxatina is vfually giuen in Plantane or faire water 3iij. with fyrupe of violets or lemmons 3j. the Aquilla vita with Conferna Rofarum, with Diatefferon, Liquorice-powder or alone- If you fee 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 Liquorica may be added, as to make it of a gratefull taste, as also for the solution of a gratefull taste, as also for the solution of the solution o

His ordinary drinke what it must be, and of what it is made.

Of the Callenture.

quantity of Rofe or other vineger, & Rofe water a little,& therto fo much oyle of Vitriol, as to give it a tafte formwhat tart, but not too much : Sirupe or iuyce of lemmons is alfo very fitting to bee put thereto if it bee to bee had in any plenty. But let mee aduife the Surgeons Mate in all the precedent courfes, that heve good diferetion and mode- Good Sargeon ration, for ouer purging, bleeding, and much thin diet take notice. will be very dangerous at fea, and will furely turne your patient into the Scuruy : For note this for a generall rule, Two principall that almost every ficknesse at fea ends in the Scuruy, and obsernations. the Scuruy oft times vnlades her felfe by a flux with death attending thereon, without Gods mercy, and the Chriftian commiferation, diligence and skilfull hand of the Sur- By Gods merey geons Mate, which that he may the better be enabled in all difficult cafes to practife and performe his duty, the God of all glory affift him with his grace, Amen.

Participation and the second of the second o

ness, whether they dod contribute A tradit Manager and

The state of the s

miferies are preuented, and art in curing ble Ted.



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TREATISE OF SALT in generall: And first of the Antiquity thereof.

Salt fibre in yegetables.



Alt was created with the world in the beginning, for that it is easie to be prooued, that neither hearbe, bud, nor tree whatfoeuer groweth, which containeth not in it felfe a proper and peculiar Salt, which is easily and apparently by art to be sepa-

Health from sale by Godsprouidense.

Scriptures, teftifie. The fea and all creatures containe falt. rated from the other fubftances thereof, and through the wonderfull prouidence of our Almighty Creatour, each falt hath some needefull vertue contained in it for the benefit of his creatures. A further testimony of his antiquity, the fea which tooke his beginning, as Scriptures teltifie, before mankinde, doth produce the fubftance thereof being wholly falt. And not onely the fea, but alfo all other creatures of God whatfoeuer vnder the whole heauens, whether they doe confift of Animall, Vegetable or Minerall parts, cannot, nor euer did fubfift without anaturall inbred falt in them, whofe nourifhment and increase proceedeth from the earth, water, or aire, where the fayd creature breedeth and groweth. Therefore fince it challengeth a place with the most ancient and first creation of all things, I needevie no more demonstrations, but conclude that the Antiquitie thereof, is as vndeniable, and as cleere, as the funne-fhine is at mid-day : thus much of the Antiquitie thereof. Oţ

Of the kindes and difference of Salt.

To intreat of all the kindes and differences of Salt, is a worke fo difficult and long, that no man whatfoeuer in the whole time of this flort life, can make fufficient relation thereof, wherefore to auoid tedioufnes, I will take a florter courfe: namely, I meane to doe fomthing therein, and leaue the reft for others of better capacity; that fhall come after. Note therefore that there are three kindes of Salts in generall, to wit, animall Salt, vegitable Salt, and minerall Salt, and ere I digretfe or goe any further, let me interpret my felfe in plaine tearmes, to young practitioners in Art, whom alone I defire to benefit.

The animall faltis vnderstood to be that falt which proceedeth from creatures that beare life, and haue fence and The shree falts feeling, or moouing, whatfoeuer, vnder which are com-explaned. prehended all beafts, fish, foule, and worme, &c. vnder the name of vegetable falts, are comprehended the falts of trees and hearbs, and whatfoeuer elfe may grow by fowing or planting, of any other industry of man, as well the feed as the fruit, or the plant it felfe, or any part thereof. And vnder the name of minerall falt is comprehended the falts of all mettals, as of Saturne, Inpiter, Mars, Sol, Venus, Mercurius or Lana: as alfo the falts of all shows, as likewife all other Minerall and Terrestrial falts whatfoeuer, without name.

Thus much in breefe for explaning the three principall kinds of Salts, each of which have a three-fold feuerall fubftance contained in them, viz: A volatile falt, a fixed falt, and a Caput mortuum, named alfo Terra Damnata, otherwife it may betearmed to containe a Flegme, a fpirit, an oyle, which againe is called, Sal, Sulphur, and Mercury, each deuidable, plainly, and eafily by Art : Some may heere object, they will draw more then three fubftances, each being a good medicine from any one fubiect, eyther K k animall

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Animall, Vegetable, or Minerall, as for an infrance from Mercury, you may extract infinite feuerall medicines, inwardly, & outwardly feruiceable, as namely you may have from Mercury Laxatiue, Vomitiue, Diaphoretick, Diaureticke, cordiall, preferuatiue, and fundry other needfull medicines to be ministred with great fafety & comfort to the difeafed, as elfewhere of Mercury is noted : which speech may feem very ftrange to fome that all thefe, yea & many more varieties & diuerlities are found in any one mineral: but though one substance make many medicines, yet it confoundeth nothing the tria principia, for every medicine is not one principall, neither is there any principall tied to make but one medicine. But to returne being digreffed,I fay the kinds of mineral falts vied at tables, & for featoning meates, are to be effeemed three in number : one kinde is the Bay or Seafalt, dryed meerely from falt fea-water by the heat of the Sunne. The fecond fort is that falt which we have from the Sea coaft, or from falt fprings at home, made by decoction. The third is the falt that groweth concrete, hard and pure in the bowels of the earth, fuch is the Sal Gemm, and this laft is held the beft, both in meate and medicine, it is in colour like Christall transparent, and groweth in great quantity in Polonia, neere the City of Cracouia.

Of the necessity of fais, and of the generall utilities thereof.

The neceffity of Salt in al things.

Example.

N O one thing which the A Imighty Creator hath made for mans vie, excelleth Salt: as well for the fundry and most necessary vies it hath, as also for the aboundant vertues thereof, without the which, nothing which is created vnder the funne, as is faid, could substit in his kinde, beauty or vigor, as for example, man the excellent of Gods creatures, without falt prefently putrifieth, or at the least falleth into some extreame difease, yea a small distemper in the Animal falt of man is able to kill the strongest man, which the simplest may in his ownereas comprehend

Answer.

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Salts good in meates are of three forts.

hend and know. And who liueth which at fome time or other hath not tafted his owne bloud, eyther from his gums or his nose bleeding, or otherwise, whereby he is a - How to diferme ble to affirme the fame bloud to be falt. I thinke none will falt in man. deny it, but if any will be fo fimple or obstinate, then let him talle his owne vrine, and there questionles hee need not doubt to finde it falt : but without contradiction, the whole matte of mans body is full of falt, and if thou wilt not by all this reason be perfwaded to beleeue it, then fearch artificially, and thou shalt finde, yea two kindes of falt in mans bloud, and fo in all other creatures which bearelife and haue bloud as well as man, namely a Volatiue falt, and a fixed falt, which falt I fay wanting in the body, that living creature which wanteth it prefently putrifieth. Some allo wee fee that by a falt rheume in their Certains enilsbeeyes lofe their fights, fome by a fharpe faltnes in the vrine, falling man wandangerous accidents enfue: fome fall into the Scuruy, ting falt. fome have the dropfie, fome the Leprofie, with infiniteother the like offences hapning by the diftemper or want of the Animall falt : the examples are very common : Nibil Sale & Sole corporibus hominum vtilius, faith Paraceljus; nothing is more profitable for mans body, then the Sunne and falt. It is the most precious Balfam for mans life in Salt prefermeth health, it maintaineth health and keepeth mans foode from patrifactio. from putrefaction in ficknesse, fores and aches, few medicines to be compared to it : Minerall falt 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 palt, then there arifeth a molt fragrant fpirit which openeth minerall bodies, and breaketh vp gold and filuer to make them potable, or otherwife according to the will of the difcreet Artift, in which spirits is comprehended the cheefe medicine: the relidence whereof, containeth the fixed falt, & the feces thereof: the feces are meerely good for no vie at all, that I know, and therfore of chimilts are called Terra Damnata. Paracelfus speaking of the neceflary vies of common minerall falt, affirmeth it to be the Kk 2

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the true correcter of all kinds of meates, and faith further, that meat, though being of meane nutriment, yet if it bee well falted, nourisheth much: for hee is of opinion, that whatfoeuer meat is eyther eaten without falt, or but meanly falted, turneth for the molt part to the offence of man, and breedeth difeases, as the falling ficknesse and other Salt helpeth di-great greefes : for, faith he, falt mightily helpeth digeflion, and concoction, and likewife comforteth all the faculties of mans body, it is the Balfam of the earth, wherby mens bodies are preferued aliue, and fo of all creatures which Salt the Balfaconteyne bloud in them, yea and all infenfible Creatures alfo, as Vegetables and Mineralls have their peculiar falt, which keepeth them in their vigor & ftrength from common putrefaction. Iosephus Quercitanus affirmeth falt to be a fpur to all medicines, both outward and inward, with which it is mixed, ftirring them vp and quickning them, the better to performe their offices, and the longer to retaine their vertues, by preferuing them from outward putrefa-Aion of the ayre.

Temperature of falt in generall.

The tomper amet

gestion, and

comfort eth.

mum of the

earth.

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Ommon falt by the most opinions of the learned wristers is hot and dry, fome affirme in the leconddegree, of common falt. fome in the third, this being fooken concerning common falt as it is vied in meat and medicine without any further preparation : but let no man attribute to all falts one temperament, which I suppose none which is difcreet will, becaufe then he should miltake himfelfe; for without al con-Divers falts di- tradiction, no temperature can be named, but fome falt werfly qualified. may eafily be proued of the fame temperature, wherefore it is faid concerning ordinary falts for meat vled, whether they come from the Sea, or from falt water by decortion, or from the ground without mans Art as falt Gemm doth, or from the falt fprings within the land, as our Worcefter fhire falt doth : yet all those have no manifelt differences in their temperature, but may be faid to be hot and dry, and

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and yet according to the firength of them, they may one exceed another more or letle in degree.

But falt-Pecter which is of excellent vfe for medicine, as alfo for very many needfull occafions otherwife, whofe fubftance and qualities are wonderfull being confidered, The quality of yet it is apparent that the temperament thereof is cold by Salt-pectr. the effects, for it doth coole the violent boyling of the bloud, no otherwife then if a man fhould coole fire with water, and yet his chiefeft fubftance is fpirituall, volatile, The fubftance and combultible, if it be pure : but in truth all mineralls of Salt-pectr, fhew themfelues in operation to be fpecificall, and not truly to be diftinguished by their heat or cold,& as for the fpirit of common falt, the medicinall effects thereof are cooling the bloud, quenching thirft, coroborating and refrefhing the ftomack, &c. the tafte thereof being almost like the oyle of Vitrioll, or rather like good juice of Lemons.

Further, the falts of animal and vegetable creatures may very well be faid to have their feuerall temperaments and differences, each according to his owne kinde, as the falt of wormwood is effected hot and dry like the hearb, and fo of many other hearbs in like manner may be vnderflood.

Somewhat of the healing vertues of common Salt.

Common fea falt, boyled in the flrongeft beere to the confumption of three parts of the fame beere and being made falt as Brine, is an excellent bath to eafe the pains Good for the of the gout, as my felfe haue proued often. It is alfo good Gout. to cure the Serpigo of the hands, Tetters of hard curation. Paracelfus fpeaking of the vertues of falt, faith as followeth. All those which are vexed with any difease, proceeding of grothe crudity, or vunaturall humidity, as rheumes, itch, serpige. Tetters. I curfe, ring-worms, or the like noyfome greefes: let them make a bath of commons falt, and flrong beere boyled together to a third part, and as warme as they can possible indure it, fit in it and fweat therein, and after go to a warm Kk 3 bed

Good for cold aches. 276

The body to be purged before it be with a falt bath bathed.

The vertues of this Lixinium.

The Caufficke ftone is made of falt.

bed and fweat againe, and doing fo fundry times, they fhall feele helpe thereby. I haue had credit by it when diuers greater medicines haue failed me, efpecially in the paines of the gout and other aches, I haue done much good with it. And further, it is fo harmles a thing, that none need to feare the vfe thereof : whereas many other kindes of bathing, although they be good in one kind, yet hurt in another, but this is meerely harmeleffeto any, prouided withall, before the vfe 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, Abstersiue, Discussion, and very Sanatiue, performing much in Chirurgery, the chiefe ingrediences whereof is vegetable and minerall falts, 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 fure and ready medicine, the description whereof is set downe in the cure of Fractures.

Alfo the Causticke stone, called commonly Lapis Infernalis, is no other thing, then meerely 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.

V Itriole, called in Latine, Calcanthum, in English Copperas or Vitriole: but more commonly called Copperas, is a minerall falt, which for the worth and Vertues thereof doth farre excell many other kinds of falts, so that not without great reason, that worthy Theophrastus Paracellus

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felfus, who had truly anatomized that falt, affirmed and often repeated, that the fourth part of Philicke was contained in this Minerall falt, from whence the fame author alfo, not which doth compare it to wood, of which divers formes may be formed, and divers instruments also may A comparison be made for divers operations and effects : for out of this between Copperas falt many fubftances may be extracted and prepared, and and wood. many good medicines may be compounded, quite contrary in operation, and vtterly difagreeing in effects from The diners vereach other, as for example out of this Minerall falt, medi- tues of Copperat cines of great efficacy may be made, as well in purging, as both inward and also sudoriferous or disphoreticks, Cordialls, Anodines, antward. Narcotick, Stupefactiue, Stipticke, Coroliue, Abstersiue, Repercussive, Mundificative, and Sanative medicines, as alfo against the Epilepsie, or falling sicknesse and fuffocations of the Matrix, good medicines are to beeprepared thereof, and how these or some of them may be made by Art, and of their vertues, as time shall ferue by Gods helpe I have determined briefly to declare hereafter.

But I confetie I am not able to discouer the fourth part of the great vertues of this worthy falt, for I daily meet with some new medicine therein worth the noting.

Of the different kindes of Vitrioll.

V Itriole or Copperas we may have heere in England of fixe, or at the least of five kindes, namely, Vitriolum, veneris, or Copperas made of Copper, which in difeases of the head farre exceedeth others, as writers affirme, and this kinde may easily be prepared and cheape, as hereafter shall befet downe.

The next thereto in vertue is that kinde of Copperas which growes in Hungaria, which to my knowledge wee cannot well haue in England, though fome will affirme they haue of it.

The third fort of Copperas that is praifed is the Roman Vitriollor Copperas, in place whereof we doe buy a kinde of

of blew Copperas in London, which is not the true Roman Vitrioll.

Thefourth kinde is brought from Goller, a Townein Germany neere to the City of Brunlwicke.

The fifth kinde is commonly brought from Dansk and is fomewhat yellowifh.

The fixth and laft, or worft, is our owne common English Copperas. These are all the forts ordinarily to bee bought.

Though indeed many waies, and of many colours copperas may be made, yea and of many fubflances, as well Animall Vegetable, as Mineral, which if time would ferue, and that it were to the purpofe, fhould be further fhewed, but to bee fhort, the Copperas I would chufe for my vfe, is that which commeth from Gofler in Germany, it is to be had in London, and is not dear, and is fufficiently good to draw a fpirit or oyle from, or to make any medicine for inward vfes, but for outward ordinary vfes, the common fort of Copperas will ferue well, and fo it will doe reafonable well for oyle, but not yeeld fo much.

Note that the bell Coppras as is faid, is made of Copper, or of the Minerall of Copper. Note further that all copper and braffe will wholly be conuerted into Coppras, yea and turne againe into his owne first fubstance, namely into copper or braffe againe, though with losse. Also iron and filuer will make good Coppras, fo will diuers forts of stones and earths be conuerted into good Coppras, and fpringsneere Copper mines, they doe make Coppras of, much after the manner that falt 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 pleafe, and Brimftone of each a like quantity, powder the Brimftone, and mixe it with the Copper, put thefe into an earthen pan vnglazed, and place them in a Char-

Coppras of diuers colours. 278

What Coppras for outward vfesbeft.

a Char-cole fire in a Chimny, and let them gently heat together till the Brimftone take fire. Then with an iron ftirre it a little to and fro till all the brimftone bee confumed : then take it from the fire, and being cold, caft it into a gallon or leffe quantity of faire water, and it will make the water greene, and in tafte like Coppras, poure off that greene water, filter and keepe it, and fet the fame Copper to be made drie againe on the fire, which done, mixe it with more Brimftone, and burne it, and quench it as betore, continuing fuch worke, till all the copper bee confumed and turned into a pleafant blew or greene water : then mixe and boyle the waters till halfe or more be confumed, and let them to coole, and being cold, if it be fufficiently A note of the boyled, you fhall finde Coppras therein ; if not, boyle it true height of the more, and the Coppras will appeare : then take away the faid Coppras which you finde, and lay it to dry, and boile the remainer of the water againe, and there will be more Coppras : take (till the Coppras each time out, laying it to dry, and doing fo till all be made into Coppras. This is the best kinde of Coppras, it is in colour of a pleafant blew, and is eafily 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.

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Of Phlegma Vitriole, or of the first water drawne from Coppras.

D'Hlegma Vitrioli is made as followeth : R. Coppras, put The viles in this it into an alimbecke, and place it according to Art in worke. 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, prouided 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 The vertues of good against paines of the head, proceeding of heat, name- Phlegma Fitriels ly the dole being two dragmes taken falting for certaine daies together. It fwageth alfo the burning and boyling

of the bloud. It ftrengtheneth all the bowels. It confirmeth the braine weakened with superfluous heat by the daily vie thereof in the fpring time, the ftomacke being purged a little before. Allo it maketh a moift braine temperate. This first medicine of Coppras was by the Auncients not knowne: my felfe I must confesse haue made no great vie of this medicine, onely I have vied it as a cooling water against the heat of the stomacke, and sometimes The Author his have found it good, as allo to foment warme with it for any fudden inflammation in any outward part of the body, due Euacuations first considered of. The faid Author afcribeth many more vertues to this first Phlegma, or water of Coppras, which, for that I would be loth to walt time, I will not trouble the Reader with.

Of the preparation of the second water of Vitriell, commonly called Spirit of Vitrioll.

Rules in the worke.

experience

thereof,

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The effects.

A Castion.

His first recited water being well rectified, separated, and kept apart : then take the glaffe, Alembeck mentioned, containing the Vitrioll, from out of the B.M. and place it in Arena, or a furnace with fand according to Art, the Vitrioll within being first made into fine pouder, and diffill it therein fo long till all the reft of the Humidity shall be drawn from it which the B. M. had not force to exhale. This fecond water, you shall perceive to be a cleere and odoriferous water, onely remember that thou force not the water ouer lirongly, but doe it by a gentle hre.

This liquor is good to purge the reynes: it appealeth inward fretting and gnawing paines, taking one drachme thereof in the morning falling with flesh broth.

It also caufeth flore of vrine, & moderately prouoketh fweat. It ceafeth the inflammations proceeding of blows or ftripes taken in warm broth,& mittigateth the paine therof, but if your fire be too flrong, your liquor wil ome ouer fo ftrong, that your dole must not exceed);, at the most: wherfore be wary thereof, for a good medicine euill hand-

led

led, may do much hurt, and fo will this if you want iudgment to vfeit. In times paft they were wont to calcine Vitrioll till it was red, whereby it was depriued, not onely of How the Ancients prepared the first, but also of this his fecond moift and most spiritefull fubstance, but that was vfed by them cheefely, when the spirite only they intended to prepare the sharpest spirit, or ftrongest oyle of Vitrioll, which strong oyle of Vitrioll hath all the vertues heereafter recited and many more.

The vertues of the ftrongest oyle of Vitrioll.

T helpeth the infirmities of the lights, with the water of fennell or fumitory, It cutteth away the melancholly humors from the flomack, with Balm-water, and comforteth the ftomack after a wonderfull maner,& doth defend the whole body from inward apostumes & inflamations, & therfore it is vied with good succession the pleuresie, as alfo in vulnerarie drinkesit isapprooued good, for it attenuateth the bloud wonderfully, and defendeth the parts greeued from feare of Gangrene or putrefaction of the bloud. It conglutinateth ruptures as well of bones as veines, and doth exceedingly corroborate and comfort all the parts of mansbody, 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 It helperb the inwardly, but also in the cure of the Scuruy many wayes, Scuruy. both inwardly taken with any comfortable wine, or with beere for neede, or to make a Beuerage therewith, and daily to vieit in small quantity, namely foure drops for a dose. In the Callenture it excelleth all other medicines callenture. taken in Plantane, Sorrell, or any other good cooling water, or onely infaire water. Other convenient courles in- A Castion. dicioufly held, as namely to procure to the party by fuppolitory, glifter or potion fomeloofenetle of body, with allo phlebctomie in due feafon, and quantity according to judgement.

And likewife observing that a dole of Landanum is in L1 2 of

The gummes ouergrowen. 282

A Caution.

Pleerations of the mouth and threat.

A Cantion.

Inflammations sf she throat.

A Causion.

Fisers and fie. finla's.

Turging m die.

fuch cafes a fit helpe, laying the party to relt : a loofeneffe. of belly, I fay, 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 rafarmm, and the gums after they are let bloud well rubbed therewith very hot, helpeth well. Alfo if a ftronger lotion bee required, you may touch the rotten gummes warily once with the oyle it felfe, but beware you touch not the whole skinne with. the oylerecited or flrong fpirit, for if you onely but rubbe the teeth therewith, it is hurtfull, for it will offend and. much decay them, although I confeileit maketh them white, I have had the experience thereof, as well by making blacke teeth white, as alfo in lotions for the teeth: wherefore I know that the much vie thereof confumeth the teeth, in vicerations of the throat or mouth that relift ordinary cure, by other good lotions vfuall, touch the vicerated part warily but once therwith, and then the vicerations wil heale very faft afterwards with any ordinary medicines & helps, remébring as caufe shall require, to vie due euacuations or phlebotomy. Alfo this flrong spirit is good for inflammations of the throat, namely against. Squin Ancis or Angina vied certaine drops in a fit. Gargarisme or. Lotion, namely, to make it fomewhat fower, and then gargarize warme therewith, for it mightily quencheth in-Hammations, and tempereth well the bloud, and being likewife a little thereof giuen to drinke, namely, fix drops in fuch a cafe, it is much the better, alwayes remembring that all fuch difeales require loofenetle of the belly, and fometimes phlebotomic.

Moroeuer in vlcers and fiftula's fcarce a better medicine is found, to enlarge a ftrict orifice, remooue a callow, or truely to correct and prepare any inueterate 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 caule is, This ftrong tart fpirit or oyle of Vitrioll is almost generally in all purgatiue medicines, a notable correctiue.

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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 tafte almost to any medicine.

It is also good to a weake ftomacke oppreffed with phlegme or flime, and helpeth appetite taken in conferue *A bad appetite*, of roles, it hath infinite other vertues too long heere to relate, and indeede aboue my reach to fearch out.

There is no medicine more precious in pestilentiall fe. Pestilentiall uors, then this strong oyle or spirit is, my selfe haue often servers. vsed it to others in that case, and taken it my selfe with good successe.

The true and vtmost dose is onely fo much thereof, as may make the vehicle or medicine wherein you giue it fomewhat fower, but not too tart, for no man can fay iuftly, giue fiue, fix or feuen drops, for that one fort is fiue times flronger 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 tafte fower like, but in the Callenture, strong feuors, or pestilentiall feuors, agreater dofe may well be taken, according to diferetion and iudgement, but take this caueat for a fare-well in the vsethereof: note that if you put it into a medicine liquid, it will linke downe to the bottome, fo that when you give it shake it, otherwife you may leaue the most of it in the glaffe behind, and when you mixit with a quantitie of Barlie water or lulep, whereof you intend to make manie doles, deceiue not your felfe, for if you neuer shake and flirreit, the last dose will be vnreasonable to be taken, and dangerous.

Of white Coperas.

W Hite Coperas is eafilie made of other kinds of cobew it is mode. in Englifh, as if it were worthy a higher or more particular name, or refpect, when in truth, as white waxe is made of yellow wax, by the bleaking it in the aire, and walking it L1 3. oft,

Of Salts and their vertues.

White Coperas weeaker then greene.

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The vertues theref, for the eses excellany

matize.

oft, fo is white Coperas made of greene Coperas, and is thereby, in my conceit, the weaker, onely the fuperfluous humidicie is thereby euaporated, and it begettech a new kinde and shape, in all lotions it may ferucin place of the other kindes of coperas, but to draw fpirits from it is weaker then anie other coperas that I know.

The cheefe vies I have made thereof, is for Collyriums or Lotions for the infirmities of the eies, namelie, againft irchings, akings, fmartings, defluctions, and opthalmia's other medicine, of the eies, wherein I finde it to exceede either Lapis Cala-

The Salt is vo- minaris, Tutia, or Campbire. The falt thereof maketh alfo a fingular vomitiue medicine, which I first learned out of she daily practife of that worthie and famous Phylician Dr. Peter Turner dwelling in St. Hellens, who highly commended it to mee, and I have found it worthy his commendations in many great infirmities, the dole is from AB. to Z.B. and to Zij. it is fafely giuen.

It may verie well bee taken in Betony-water with fugar,

or in want thereof, in faire water with Rofe-water, one

spoonefull. It is good against the falling sicknesse, and in

diuers occasions of purging the head, also in feuors pro-

ceeding of crude and vndigested humours. It prouoketh appetite. One receipt of my experience for outward infir-

Theeffects of the Salt are for the faling fickseffe.

Feners.

Stomach.

mities of the eyes, I will heere befow vpon the Surgeons Mate made of white coperas, which is as followeth. R.

Areceit for the Vitriolum Album in powder 3-j. one new laid egge, or elesill-affelted. found egge, boile the egge hard, fhell it, and cleaue it through, and take out the yolke, and in place thereof put the powder of coperas mentioned, and let it to remaine clofed together two houres or more, then put it into a cleane foft ragge, being ftill fo clofed together, and ftraine it hard, and a water will come out which is greene in colour, keepe it in a glatle close flopped, and when occasion is, drop one drop or two at once into the greeued eye. It is good in many infirmities of the eyes, and it will keepe feuen yeeres without putrifying. It cureth all itchings imartings, immoderate rheumes, the Opthalmia's in their beginnings,

Of Salts and their Vertues.

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beginning, with many other infirmities happening to the eyes, and it firengthneth well the fight. Thus much for this time of white Vitrioll or Coperas.

Of Burnt Vitrioll.

This is made as burnt allum is, of any fort of coperas, and is of great vse in Surgerie, namely, to abate spungie flesh in vscers, and also in all restrictive powder for The vse of it. Itaying of fluxes, and it helpeth well with other simples fitting to ficcatrize, and also in Lotions and Gargarismes, as is sayd, it is of good vse.

Of Liquor, or rather Mel Vitrioli.

This Liquour, or rather honey prepared from Coperas, fo called, becaufe it is in thickness and colour not valike honey; It is an excellent remedie against any lachrimous or weeping vlcers, or fistula's, to ftay defluxions of humours in them, for it is very astringent, and doth wellfortifie a weake member, it is made of calcined Vitriol whereof it is infused in fpirit of wine, and the tincture of the coperas thereby drawen out, and then the fpirit of wine euaporated per B M and so it is excellent for to cure rotten gums or any purred or corrasiue vlcers of the throat or mouth, or elfewhere, and hath many other special vertues, which when I set down the preparation and vse of my other chimicall medicines thall be further handled.

Of Colkethor or Dead-head.

F Or want of time I heere come to the last medicine of Vitrioll ere I have touched the fourth part. This Colkethor is of two different kindes, the one is from the feces of Aqua fortiz, and the other from coperas, after the strong oyle is extracted from it. The first is most in vseamongst Surgeons, and indeed e is most forcible, because

Of Salts and their vertues.

The force or ef-

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caufe therein is a great part of the fixed falt of Salt-peeter. and of Allum mixed with the coperas, it is a medicine aftringent by reason of the coperas and allum, and absterfiue by reason of the Salt-peeter, and therefore it is good fell of Colkethor. for to prepare stubborne vicers to siccatrize. Thus for this time I conclude of Coperas.

Sal Abfinthy:

The dose for a peftilent feuer.

The dose for the Dropfie.

The quality.

The dose for a Quotidian.

Good for flopping of the wimall paffages.

CAlt of worme-wood is a cordiall medicine, and is very Oneceffary in the Surgeons cheft. It is very good against the heat of a burning & contagious feuor, 3-B. theroftaken in a decoction of Sentaury beft, or in Plantane, or faire water, to which for to amend the tafte, you may adde fugar a little : giue the party at the least three doses of the medicine at leuerall times, and fweat thereon, you shall finde it an excellent helpe alfo in the dropfie or fwellings of the Scuruy, Jj. thereofgiuen first and last on a peece of tofted bread for fiue daies together.

It is good and fit to adde a few graines thereof into es uery cordiall, for it is Diaphoreticke, Diaureticke and partly Laxatiue. It is a very good medicine against a quotidian feuer, Z-j.thereof taken in Sentaury-water, or rather in a decoction of Sentaury & fweat thereon. In all floppings of vrine, it is a fure good medicine taken in wine. Thus much for this time for Sal Abfinthy.

Sal Gemma.

Earch in the differences and kindes of common Salt for Sal Gemme.

Sal Nars

The putity. The Mature.

S the Christalline falt purified from groffe Salt-peeter known to be pure by that it doth containe no common falt therein, being also wholly combustible of temparament

Of Salts and their Fertues.

ment it is either hot or coole, as is plainly feene by his office and vertue: doe I fay vertue? yea and viceboth, I may fay, for in truth for wounding and killing falt goeth bee. yond Mercury, this is the dangerous part of gun-powder, which giue: h it the force of piercing to the heart, which God deliver all Christians from feeling it, and accuried be that hellish Germane Monke which taught it first in Eu- Germane rope. This or Salt niter is either animall or vegitable, or Monkes Euboth, and may also not vnfitly bee tearned minerall, Sal Nitri of growing in mines, and it is every where, for every crea- 1000 forts. ture living may beefay d to have a part thereof : man and beaft, I am fure hath a great part of it. It is a molt medici- The Pracious nable fubiect as any is in the world, and no man can live Kingdome of without it, for our bloud and vrine hath it in it, yea, and Sal Nitri. our very excrements are mixed therewith, it is also in caues, in mountaines and plaines, and where not?

But to leaue fuch difcourfe, whereto I haue not appointed this little time, I fay, Sal niter in the Surgeons cheft is a worthy medicine, and the purer it is, the better it is for The inward all vfes: Touching the inward vfes thereof, it is good a. vertues of Sal gainft Hemoragia, or bleeding of a veine, whether it bee The dofe for by the nofe, or any inward vaine of the body, taken z_j . Hemoragie. diffolued in Plantane or faire water.

In the Callenture it is approoued good to coole the Helpeththe boyling of the bloud taken as aforefayd, the dofe for a Callenture! neede, if the heat bee great, may bee giuen euery foure houres, or the party may have a barley water rather made, wherin two dragmes or more may be diffolued to dinke at will, it will not offend him, onely if hee take too great a The dofe. dofe at once it may caufe him to vomit, but it will not hurt him. It is the beft thing I doe know for the furring of the mouth and the throat in feuors, the place gently walked Clemfeth the therewith diffolued in water, it prefently bringeth away all meuthfurred, "Jed in water. gratefull of tafte : butfo foone as you haue taken fuch furting away, I aduife that you haue readie fome gentle fana- clenfed a Lation tiue lotion to inject, to take away the acrimonie thereof, needfull.

Mm

for

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for it is abstergent, and yet without violence or danger, you may vsetherefore the ordinary lotion one part, faire water two parts, and so inject to cleanse the mouth after the vsethereof. I have expressed other vses of Sal Niter proper in the cure of the Scuruy, to which I referre the Reader.

CERTAINE PLAINE Verses for the vse of young Surgeons by the Author gathered, In praise of Salt.

Sounds to Switch 25 Miles

CL 0437 22.53 (EERT)

mouth sad the (n)

S Alt with the world did beginne, whofe end exceedeth time: In it lie hidden fecrets rare, which no tongue can define.

Our Sauiour his Difciples deere, to falt did oft allude : Who by their bleffed voices fill'd the earth with fpirituall food.

Salt many iewels farre exceedes, falt guideth health and life: Salt Author is of all increase, 'gainst falt there is no strife.

Salt and his force, his place, his time, his power in life and death: His choyce, his change, his actions firan admire we may on earth.

Of Salts and their vertues.

What living creature can want falt, what plant or tree may grow : What mettal perfect doth endure if falt it doeforgoe.

His feuerall kindes are infinite, his vertues without number : His quantitie fo large in all, as to man feemes a wonder.

The aire, the earth, the Ocean deepe, with falt are feafoned fo: As wanting it fowle, beaft, nor fifh, nor man could breath I know,

And for one inftance doe but note, in bloud what talte you finde: Note vrine eke how falt it is, if it digretle not kinde.

Yea iweat and ipittle though they be, but excrements indeede, Haue ftore of falt, which thing we find by nature fo decreed.

The earth produceth falt in all her creatures more and leffe: Yet different each in fome degree, experience doth confesse.

Both hot and colde, yea moift and dry, is falt in temperament: Yea volatile and fix alfo obferuing each intent.

Some fowre, fome fweet, fome fharp is found, fome bitter ekein tafte :

Mm 2

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Of Salss and their vertues.

Yea liquid, folid, corrafiue, and parging falt thou haft,

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All colours ftrange in falt are feene; true healing therein flands: And poyfon ftrong abounds in falt, falt loofeth mettals bands.

The fpirit of falt makes liquid Sol; and Luna at thy will: That potable they may be wrought, aworke of worth and skill.

By falt are cured many greefes, though hidden and profound, Yet the exceeding vie thereof, is certainely vnfound.

Salt doth preferue the food of men, that trauell farre by fea, And feafoneth well our meats at home, which elfe would foone decay.

Ofgaine that doth thereby arife, 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 fifh in lakes : Great flore of food is gain'd by falt, all things it fauory makes.

In Phyficke and Chirurgerie, it hath the greateft part : It doth containe an effence true, which glads the fainting heart.

Ite

of Salss and their vertues.

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It caufeth appetite at neede, it quencheth thirlt at will: It ceafeth paine of raging gowts, it feuors hot doth still.

Thereby are bleeding wounds made y and that without delay : Yea, fordid vlcers it makes found, and tumours takes away.

For meat and medicine there's not ough with falt compar'd may be. Wherefore Ile ceafe to praife a thing aboue capacitie.

God grant we all may feafoned be, with falt deuoy d of strife, That while we liue we may doe good, and gaine eternall life.

· Salmesallorum, est lapis Philosophorum.

mit which is comballible, the aging he liquid, is termed

Callabar in on vioular is that vivall Salphur or Brimftons

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OF SULPHUR.

Sulphur is taken in generall three manner of waies.

A special obsermation.

ERample. A generall rule. Vlphur is generally taken for every fatty, oilie, or any way combustible part of any creature, whether it be Animall, Vegitable, or Minerall, namely in Animallit comprehends Adeps, Axungia, Pinguedo, and what elfe is combustible. In Vegeta-

bles it includes Rosine, Terebinthine, Gum, Oyle, Waxe, Vinum Ardens, or Aquavite. Touching Mineralls or Mettals, it includes all forts of Bitumens, with alfo the oyles of Mettals, as of Gold, Siluer, Iron, or any other, together with all forts of Brimftone. Alfo it comprehends all forts of Minerall falts, I meanetheir Oiles, as the oyle of Vitriole, of Allome, or of common falt, &cc. And further it is to be confidered, that every Animall, Vegetable, or Minerall fubftance whatfoever, is faid to containe his own peculiar and different Sulphur, as for example, in wine or beere, or any other liquid thing vegetable, that fpirituall part which is combustible, though it be liquid, is termed the Sulphur thereof, viz. Aquavita is the Sulphurous part of Wine, and fo alfo of beere is to be vnderstood.

Of Sulphur in particular.

What is is .

Swhich with vs is common, of which Artifts make diuers excellent medicines viz: Flos, Oleum, Lac, Arcanum, and Balfamin Sulphuris, as also Effentia Sulphuris, with many other profitable preparations.

This

Of Sulphur and his vertues.

This Sulphur or Brimftone is tearmed the Balfam of Thediaers in . the Earth, of fome others it is tearmed a Minerall Terbinbellations of Sulphur. thine, of other fome a Rolin or Gum of the earth, and is plentifull in all the world, for if you but note for one The plenty of meane inftance, the fea-coles, as we terme them, which we sulphur. burne, euen they are full of Brimftone, whereby they kindle fo foone, and burne fo noyfome, that were they not burned in Chimnies, none could line and indure their fulphurous fume. As alfo the Turfes in fome places wfed for fuell, and generally, all the earth is replenifhed with brimftone.

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Moreouer note, that there is no mettall, whatfoeuer it be as is faid, but containes a naturall Sulphur in it, otherwife it were no mettall, for intruth many of the ancient writers doe affirme that Sulphur is the Father of all Sulphur the Fanettalls, and notwithftanding all mettals containe a part theref mettals. of Brimftone or Sulphur in them; yet weefee Sulphur or Brimftone alfo to be an ordinary fubftance of it felfe without the helpe of any mettall to it. Further it is apparent that Sulphur or Brimftone is of many different kinds as is faid, and thus much breefly of Sulphur or Brimftone.

Each order beit good or bad, ... is linek sin Sulphura banda.

A



In praise of SVLPHVR or Brimstone.



His Sulphur from the Horrid deepe, dame Nature did ordaine A fearefull fcourge for finne to be as Scripture doth explane,

Of Sulphur and his vertues.

A tafte whereof we may perceine, for his infernall fire Hath millions flaine in towne and field, by Mars his furious ire.

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Yet though it feeme molt merciles our God will haue it fo, That from the felfe-fame subject shall great choice of medicines flow.

Yea it one chiefe mongst three is held in all that liue and breath, And Vegitables it maintaines, yet burne in Caues beneath.

A Father it is of Mineralls, Philosophers fay fo, By help whereof they're made concreas, from Chaos whence they grow.

The Sulphur that's in Animals, in fatnes cheefly flands, 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 firong man it puls downe, it can inebriate.

I meane the fulphrous spirits of wine, fir Barly-cornealso

Hath

of Sulphur and his vertues.

Hath shewed himselfe a man at Armes each plow-man that doth know.

But to returne being wide digreft from what I haue in hand, The minerall Sulphur was my fcope, well knowne at Sea and Land.

Which Brimftone crude gainft itches tri'd in country and in towne, And to kill wormes in man and beaft is vf'd of euery clowne.

The oyle of Sulphur well prepar'd, a iewell is of price : His balfam precious is alfo, thefe 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 ferue 'gainft peftilence, 'gainft Asthma and the Murre, 'Gainft Feauers and 'gainft Plurisies to appetite a spurre.

Vnto the Lungs a Ballam tis, the Collicke it doth cure, From falling ficknes it defends and is both fafe and fure.

In Phificke and Chirurgerie great helpe it doth produce, To him that hath it well prepar'd, and rightyl knowes his vfe, N n

But

Of Sulphur and his vertues.

What is the stand of the stand

i ca peing prépared faithfull Lir forth courter holicart

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Vato the Lunch a Ballace fit.

and is born fare and ince.

and return throws his the

But Chimicke medicines are to fooles like fwords in mad mens hands, When they fhould aide, of times do kill, fuch hazard in them flands.

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Let Surgeons mates to whom I write, be warn'd by me their friend, And not too raihly giue a Dole, which then 's too late to mend.

For many a good man leaues his life, through errours of that kinde, Which I wifh young men would auoid and beare my words in minde.

Though Sulphur, Sal, and Mercurie haue healing medicines flore, Yet know the have poyfon and can kill, prepare them well therefore.



My shape and habit strange you see, my attions best can witnesse me: About the world I take my way, with Solin circuit once a day.

From earth to skie with oft returnes, from substance to a blast: From good to bad and good againe, hence winged, I five in hast. N n 2

OF MERCVRFE in Generall.

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Mersurie commended and difpray/ed.

34: 36 13.



Ercurie is generally taken by Chymilis for one of the three principles whereof each compleat creature is framed by nature, and it is also the first which forfaketh his fellowes, being affailed by Vulcane, it is in truth a fugitive and vagrant

Of

fubstance, which in the preparing of divers simple medicines, is fcarce to be effeemed worth the glaffe which con-tainesit, it being also the faintest and weakest part of the three, for performing any good thing of it felfe, yet if you paffe higher in Art then to a fimple worke, and that you would make a true ellentiall medicine, in fuch a cafe it is worthy of equall refpect with the reft : namely either with the Salt or Sulphures part of the medicine. It is of fome Artills tearmed a Flegma, a water or a dew, as being the most watrish part of a medicine, it is fo easie to be exhaufied from his fellowes, that the very warmth of the Sunne will raifeit, yea warme aire without fire or other helpe in fome fimples is fufficient to dry their humidity, though not alwaies wholly : but note this that all the humidity in A fpeciall obfers medicines is not to be tearined Mercuriall or Mercury: for any humidity, though it be not oy ly, yet if it be combuffible, it is tearmed Sulphurious, to wit, Aquavite as is faide, euen fo much thereof as will burne is held Sulphur vinj. Thus much of Mercury in generall.

Of Mercurie and his versues.

Of Mercury in particular.

Ercury is a special name which wife Philosophers of Mancient time have thought meet to grace quickefil - Mercury taken uer withall, the reason whereof in my opinion was, for that for Quickefilmer. quickeliluer is an vnstable or vncertaine Metalline fubfance fugitiue, and not well any way to be made fixe or faithfull, as trial will teach thee to know. And yet of quickfiluer is made many feuerall forts of medicines, each Quickfiluer in their names and operations much differing, according ble, to their vertues, seuerall vies, and effects which they performe : Sublimed Mercury is called onely by the name of Mercury fubli-Mercury, & by the vulgar fpeech, fome call it white Mar- mate white Mers cary & Markry. This coroliue medicine is made of quick- whereof it is filuer, falt, and the Colcother of Vitrioll only by fublima- made. tion or diffilling them together with the quickfiluer, which quickfiluer flieth vp to the top of the helme or head of the Thefubele quali-Still, together with the fpirits of falt, leaving the fubftance ty of Quieneof the falt, as also the Colcother in the bottome of the filmer. glaffe which is therby faid to be fublimed, yet neuertheles though it feeme eafily to be made, let noncattempt 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 vied, and hath much helped the Surgeon in the outward cures of desperate difea. fcs as namely fiftulaes and rebellious ylcers.

Of Precipitate;

PRacipitate is also Quick-filuer distilled in Aqua fortis, How Precipitate which by reason of the strong spirits contained in the is made. faid Aquafortis or strong water, it is coloured red, or glistering, or yellowish, as experience showeth, the vapors proceeding from this kind of preparation are also dangerous and so are the medicines made therewith being often without due respect administred, yea 3-j of Pracipitate or Nn 3 more.

of sinaber.

Mercurie.

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more often Pill-wife, But fome Artifts, And againe, fome others which would be efteemed more excellent for inuention haue this medicine a little remooued. And then they stile it Turbith minerall, attributing thereto the perfect cure of the Pox, perfwading them felues none can doe like wonders to themfelues, but they are children in vnderstanding, and know it not, onely they are opinionated The fubrility of. and bold, and more often kill or fpoile, then heale, as their confciences know; for Mercury is a fox, and will be too crafty for fooles, yea and will oft leaue them to their difgrace, when they relying vpon fo vncertaine a medicine. promise health, and shall in stead of healing make their Patient worfe then before.

Of Sinaber.

C Inaber which is vied in fumes for the pox, is a deadly medicine made halfe of quickfiluer, and halfe of brim-

ftone by Art of fire : I meane by distillation. I know

the abuse of these three recited medicines hath done

vnfpcakeable harme in the common-wealth of England,

Wheref Sinabrii mmade, and the vse and abuse thereof.

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 every horfe-leech and bawd now vpon each trifle will .procure a Mercuriall fluxe, yea many a pittifull one, wherby diversinnocent people are dangeroufly deluded, yea perpetually defamed and ruinated both of their good names, goods, healths and lives, and that without remedy. Methinks I could spend much time if I had it, even in setting downe the good and bad things of quickfiluer, and yet I confeile I am too weake to describe the tenth part of hiswonders.

Themedicines Mercurse.

There are also from Mercury of late yet divers other good medicines in vie, which for their forces and vertues that are made of are admirable, as namely Mercury water, which is made of fublimed Mercury, and called Lac Mercury, Mercu-

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of Mercury and his vertues.

rim duleis, Mercurius vita. There is also both Diaphoreticke Mercury, yea Diaureticke, Vomitiue, and Laxatiue medicines of diuers forts out of Mercury both fafe and good to be made, the preparations and vies of which, when time ferues I meane to publish.



In Laudem Mercurij: OR IN PRAISE OF Quickfiluer or Mercurie

WHereto fhall I thy worth compare? whofe actions fo admired are, No medicine knowne is like to thee, in ftrength, in vertue and degree.

Thou to each Artift wife art found, a fecret rare, yea fafe and found : And valiantly thou plai'lt thy part, to cheere vp many a dolefull heart.

Yet makeft thy patient feeme like death, with vgly face, with flinking breath: But thou to health him foone reftores, although he have a thoufand fores.

The perfectil cure proceeds from thee, for Pox, for Gout, for Leprofie, For fcabs, for itch, of any fort, These cures with thee are but a sport 301

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Thou humors canft force to fublime, and them throw down when thou feelt time. Yea from each end difeafes flie, when thou art preft thy force to try.

Sweat to prouoke, thou goeff before, and vrine thou canft moue good ftore, To vomit for diuerfion beft, in purging downe thou guid'ft the reft.

Mansbody dry theu canst humeckt performing it with due respect, And being too moiss thou mak's it dry who can that secret cause descry.

Quid non men terme thee, wot's thou why? thou can't be faithfull yet wilt lye: Thy temperament vnequall ftrange, is cuer fubiect wnto change.

For thou art moift all men may fee, and thou art dry in th'higheft degree: Thou'rt hot and cold even when thou pleafe, and at thy will giv'ft paine in eafe.

Yet thou halt faults, for I dare fay, thou heal'ft and kilft men euery day, For which I will not thee excufe, nor hold them wife that thee abufe.

But for my felfe I doe proteft, as trufty friend within my breft, Thy fecrets rare most fafe to hold, effecting them as finelt gould.

And why? thou art the Surgeons friend, his worke thou canft begin and end :

For

Of Mercury and his vertues.

For tumors cure, yea hot or cold, thou art the beft, beit new or old.

For recent wounds who knoweth thee, hath got a peereles myfterie : A Caufticke thou art ftrong and fure, what calous flefh can thee indure?

In Maturation where t'is dew, thou art the best I euer knew: For repercussion thou win'st praise, by disfolution thou giu'st cafe.

What's virulent thou do'ft defie, and fordid Vlcers dolt defcry : Yea fiftulaes profound and fell, thou fearcheft out and cureft well.

No vlcer can thy force indure, for in digeftion thou art fure : Mundification comes from thee, and incarnation thou haft free.

To figillate thou do'lt not faile and left ftrange fymptoms fhould affaile The greefe late heal'd, thou canft conuay, th'offending caufe an other way.

The Alchymift by Vulcan fought, from volatile thee fixt t'haue wrought: But thou defielt his trumpery, and changest him to beggery.

Had I but all thy healing Art, it would fo much aduance my heart, I fhould not doubt equall to be in wealth to Lords of high degree. Trine 6 950/

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Survey and

Of Mercury and his vertues.

But from thy venemous vapours vile, thy coroliue fting that bones defile, Thy noyfome fauors full of paine, God giue me gracefree to remaine.

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For when thou rageft Bird, nor Tree, nor fifth, nor fowle can withftand thee: What minerall fo ftout can fay, fhe can withftand thy force one day?

In Saturns breft thou feem'lt to dwell, by Impiters foyle thou doft excell, Thou Lion-like furprifeft Mars, rich Sol thou mak'ft as pale as afh.

Thou Venus beauty canst allay, thou Hydrarge dost Elipse Luna : And though thou seem's to wrong all fixe, not one without thee can be fixe.

Thou art their Mother, fo faies Fame, which gives them caufe t'adore thy name: Ready thou art as women be, to helpe poore men in milery.

Humble ; to duft, and afhe at will water and oyle from thee men flill: Toft vp and downe in fire thou art yet fubtill Mercurie plaies his part.

Meeke as a Lambe, manly eake, foft as the Wool, Tiger like : Millions in one, one in a Million, Male and Female in thy pauillion.

Thou Hermaphrodite as Fathers know, feeming folid, truely not fo:

Thoule

of Mercury and his Vertues.

Thoul't be in all, none refts in thee, thy boldnes brings Calamity.

Thou Idoll of the Chymifts ould, who shall thy fecrets all vnfould? Swift is thy tongue, none can thee stay, when thou feem'st dead thour't flowne away.

If thour't in all things as men fay, daily produced and fled away, Vp to the skie, downe to the graue, a wonder like thee, where fhall men haue?

But mend thy faults or thou shalt heare, I'le 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 finne to wrong a theefe, th'Impoltures fault therein was cheefe: For he that would be bold with thee, 'twere meet he knew Philolophy.

For thou to fuch art knowne and true, but hatelt fooles that men vndoe, Handling thee without due caule, thou being not fubiect to their lawes.

Now to conclude, one boone grant mee, I will requite it gratefully : If th'old wife kill thee with fafting spittle, furuiue to make her patient cripple.

For well I know it is in thee to caufe difgrace effectually : Histhroat and nofe fee thou defile, for thou thy Father canft beguile-002

Force

306 Of Mer cury and his vertues.

Force out his teeth, clofe vp his iaw, and leave fcarce entrance for a ftraw : Yea deafe, or dumbe fee thou him make, with ache and woe, with palfie fhake.

Regard not thou though he fhould curfe, whole greefes th'hall chang'd from ill to worfe: It's knowne by thee ther's many fleepe, for whom it is too late to weepe.

I'le leaue thee left thy anger rife, thy fauours let no man defpife : For as fword drawne, I know thour't preft, men to offend, or yeeld them reft.

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 Zoylas deeme I ftretch too wide, in praifing thee what heeres defcri'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 confifts. Many learned writers haue through their whole volumes, 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 every naturall body is composed, whether it be Animall, Vegitable.

Of Mercury and his vertues.

Vegitable, or Minerall. The Sal, Sulphur, and Mercury are by the Ancients divided out as followeth: they affirme the thin Volatile and watery part or fubftance of any thing whether it be animall or not; to be the Mercuriall part thereof; the fatty, oilely, or any way combustible part to be the Sulphurious part of the fame medicine, and the afhes remaining after combustion is effected the Salt part thereof.

Each of these three substances are well to be divided from the other by Art, and to be reunited, the pure part being separated from the impure. But in this part restection the whole Chymicke Art, the artificial effecting whereof sheweth great perfection in the Artist, these things are talked of by many, but performed truely by few, for in this it may be truly faid: Aliquid Latet quod not patet: hic labor hec opus.

Alfo the diuifion of Animall, Vegitable, and Minerall creatures is as followeth. All whatfoeuer hath life, whe-what creature is ther it be in Sea, Land, or Ayre, living it is effected an Animall. Animall.

All whatfoeuer groweth vpon the vpper face of the earth by nature, or mans industry; whether it be Tree, *What the vegitas* Plant, Hearb, or what thing elfe fo euer from the Cea-ble creatures. der to the Thistle, eyther branch, barke, or roote, is accounted for a vegitable creature.

And all whatfoeuer is meere earth, stone, iuice, or liquor of earth, as Salt, whether it be of the Sea, or Land, to. What a minerall gether with all mettals or mineralls whatfoeuer, are reputed for the Minerall part.

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OF THE SEVEN PRINcipall Mettals afcribed to the *Jeuen Planets*.



Here are feuen principall Mettalls in Chymicall, Philicall and Chirurgicall vle, and they are by many famous writers which are delighted in the preparation of medicines, named and noted downe vnder the vfuall names or Characters of the feuen Celeftiall planets,

The names and Characters.

A reason of these Characters

as namely Lead is tearmed Saturne, and noted by the Character of Saturne. Tinne is afcribed to the planet lupiter, and marked with the Character of Iupiter. Iron is marked out with the Character of Mars.

Gould is fet downe by the Character of Sol; Copper by the Character of Venus: Quickfiluer by the Character of Mercury: Siluer is deciphered according to Luna. Which things the learned haue thought fit fo to doe, no doubt for many good reafons; one of the leaft of which is for a more breefe diffinction in their writings at all times.

Theophrastus Paracelsus in a treatise of Sulphur, as Michael Toxites fometimes of Stransburge, Doctor of Phificke noteth, hath these words of the seauen Mettals and their vertues: faith he, the Sulphur contained in the seuen Mettals, inricheth or endoweth each of them with medicinall vertues, appropriating them to seauen principall members of mans body for the curing the seuerall greefes of

of the feuen Mettals.

of the fame members, as namely.

The medicines prepared artificially from Gould, are noted cheefly to respect and cure the diseases of the heart. Seven peculiar Those of filuer to respect the braine cheefly. The medi- effects in these cines from Copper to respect the kidneyes. Lead and the 7. Mettals. cines from Copper to refpect the kidneyes. Lead and the medicines thereof to the milt.

Iron to the Gall.

Tinneto the Liver.

Quickefiluer to the Lungs.

But note further that notwithstanding these mettals are faid to respect these principall members mentioned, yet How farre gefrom any one of them may be made medicines that doe nerally the efrespect all the parts of mans body, as namely, Aurum potabile, and fo of others : for in truth these mineralls can do wonders both in Phylicke and Chirurgery, being rightly prepared and applied, and the contrary being abused. Thus much in breefe touching the feauen principall Mettalls.

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 expressethin these words following: faith hee, the whole world is diuided into two Globes, to wit, into the fuperiour Heauen, The whole which is Ætheriall and Ayrie, & into the Inferiour Globe world contained 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 ef- What is comprefentiall Element; the water and earth are the other two faperiour globe. Elements: fo he concludes, there is but three, and with what the inferiour him all the Chymifts of latter times fubscribe, affirming our containeth. that number most perfect which agreeth with the euerla-

fting Trinity. Paracelfus in a treatile of his, called Meteorum. cap.1. mentioning the difference betwixt foure and three Elements, hath these words. Touching fire; faith he, fire which is effected one of the foure elements, can fland with

Of the seven Mettals.

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with no reason foto 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 poffible for a man to be bred, and to live 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 fommer and winter, cold and heat, and all nourifhment and increase what foeuer without the helpe of fire. Therefore are the heanens the fourth element, yea and the first, for the facred worde sheweth vs that in the beginning God made heauen and earth, fhewing that heauen was the first made, and in the outward heauens are included the water and earth, which faith Paracellius may be compared to wine contained in a yelfell, for wine is not gathered and prepared without a vellell first had and ready, prouing allo many waies that the fire is included within the Element of Ayre, & is no Element of it felfe. To proue the like opinion, touching the foure elements, I could rehearfe the names of many famous writers if I had leifure, and that the occasion were worth it, but the question little concerneth the cure of difeases by young Surgeons, wherefore I will conclude this point my felfe, intending neyther to quarrell for to proue three, nor foure, let there be foure or three, eyther of both shall contentme.

A PREFACE TO THE Treatife of the Characters and tearmes of Art following.

භෝජෝමෝමෝමෝම්භාම්භා



Vrteous Reader, confidering with my felfe that young men'in long voyages are full of leifure, I thought it not loft labor to adde thefe treatifes to the former, for that they not onely

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containe profitable instructions for youth, but by their nouelty and varieties doe partly refresh the minde of those readers as delight themfelues in that part of practife. It was part of my gleanings in the time of eight year estrauell by land in forreine regions. If the matter and formethereof be not worth thy acceptance, yet I pray thee accept the good will of the giver.

CHA-

CHARACTERS AND their Interpretations.

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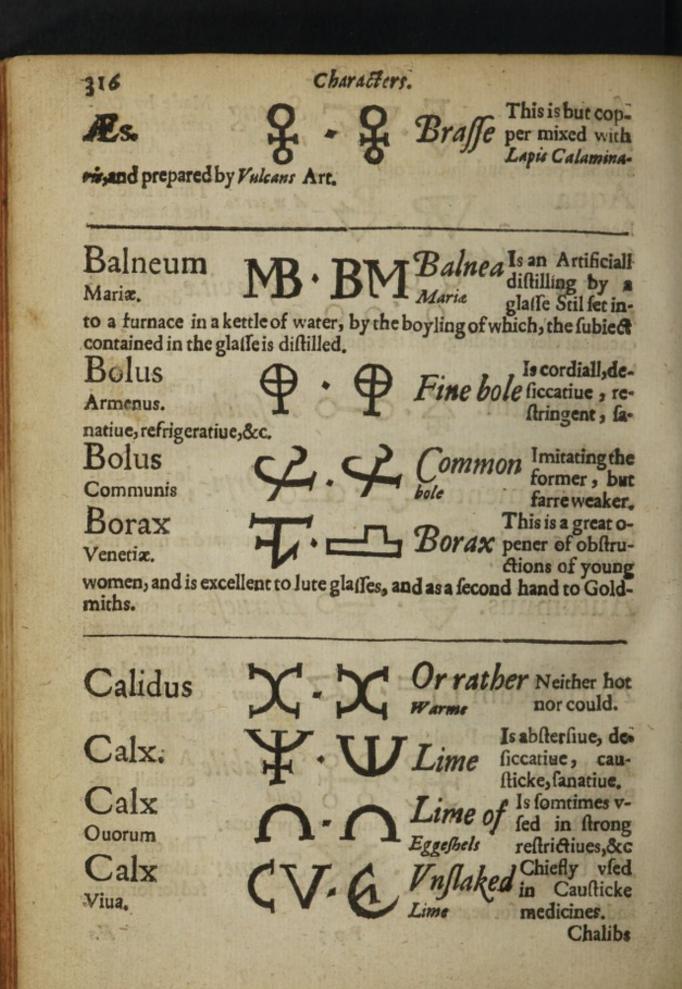
And first of the seauen Planets.

Cold, deficcatiue Saturnus. Lead sweet, discussing, mollificatiue, a-Plumbum nodine, fanatine, laxatiue, mundificatiue, and yet full of deadlie vapors. Diaphoretick, la-2. Tinn xatiue, deliccative lupiter. Stannum fanatiue, &c. T. Iron or Steele greateft The Mars. fhedder of bloud Ferrum a fure medicine for fluxes of bloud, and a great opener of obstructions. A great and fure Sol. . (Gould Cordiall, for it Aurum comforteth the heavy hearted, and is reputed the belt medicine. Maketh fundry Venus. + 7 Copper needfull medi-Cuperum cines for mans health, Phyficall and Chirurgicall, viz: oleum, piritus, & terra cum mul. tis aligs. Mercury

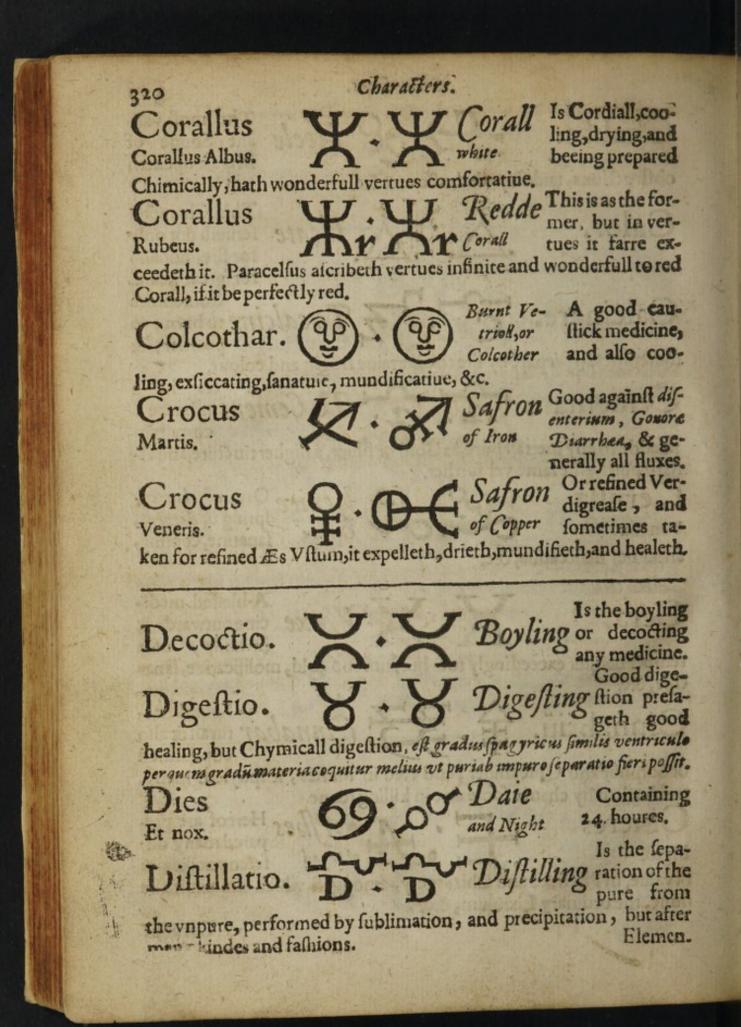


Characters: 316 A fecret in refto. Alumen ring a withered Plumolum. memher by certaine hidden specificall vertue it hath. Whites Cold, defensaumen tiue, mollifica-Ouorum. tiue, healing,& good in reffraining fluxes, &c. A putting things. Amalgama. XX aaa together, or a terme of Art for putting together, viz: fiat Almagama, but more particularly it is meant of Mercury, with any other mettall. Vomitiue, . Antimony laxatiue, la-Antimoniu. natiue, diaphoretike, diaureticke, anodine, caufticke, and full of deadly vapors, if it be not preuented, yet exceeding precious in healing, being difcreetly vied. Glasse of An- A forbidden, timony or Sti- medicine, and Antimoni Vitrum. yet of doctors bum. vled, and praise-worthy, if not abufed. Antimony pre- This is but Antimoni halfe a medicipitate Regulus. cine, which afterward isvied to be conuerted to Flores, Tincture, or fome other good medicine. From March the S----- One 25. till thereturn Annus of the fame. Oncofthefoure Water. elementsofquas qua. lity could and moilt. Aqua

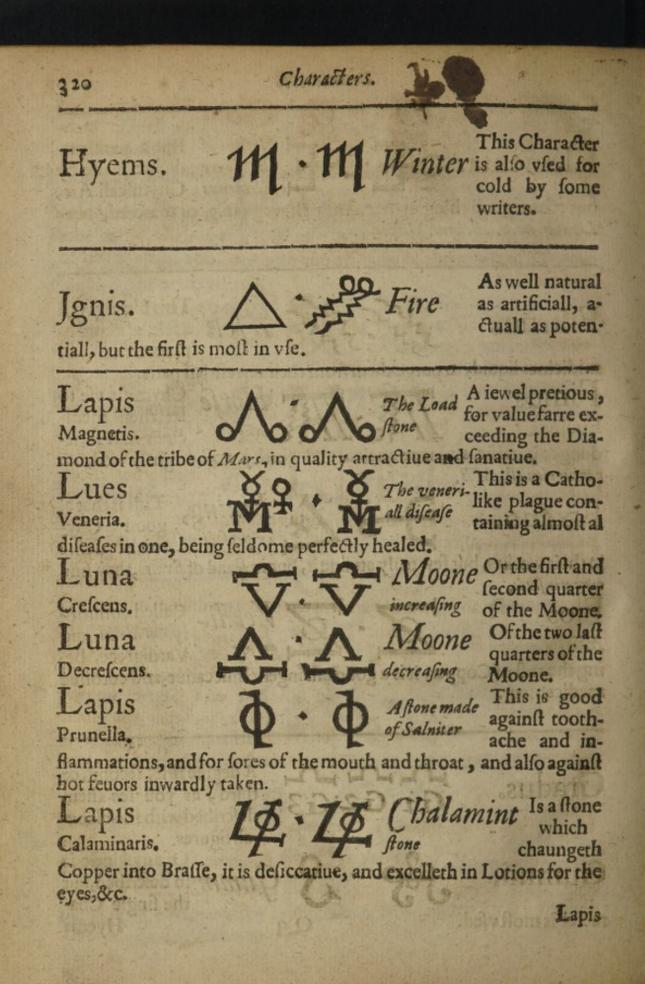
		A REAL PROPERTY AND A REAL
	Characters.	317 Mada by 714
Aqua E	· F Strong Water	Made by Unl- cans Art of Cop.
		pras, Allome,
and Salt-peeter, and diuerfli	D	This is made as
Aqua R	. A mater to divide gold.	the former, ad- ding common
Regis.	e.	
Aqua 9	PO Aquar 00 of Wine.	vitæ Aquavitæ
Vista. 8	O O of Wine.	of wine is of
excellent vie for healing, an	d the cheete cordiall in	cheering the heart
of man.	- 1.6:	Intallenot vn-
Arlenicum.	· O-O Arjni	all deadly, yer
I amount healer man	vivaies	2005
Auripigmentu:	Or	P1- ly, yet vfed of
Ziuripismener	Themist and out	fomeinward-
ly for the cough, by fume we dicines profitable.	An amber mixt, and out	
Autumnus.	2.20 Harn	or as it were est an entrance.
Autumnus. V		
the second second	A chalk	that Alfo gold cal- cined into pou
Auricalcum		der beeing an
entrance to Aurum Potab	gora	1.0
Aurum 9	E. J. Pota	bile A Principall cordiall me-
very often adulterated, wh		
Æftas.	. X Somn	ner is fomtimes v.
LY Let in Caufficker	7 717	fed for fommer
and fometimes for heate.	Pp 3 -	Æs



Characters. 317 The most vali-Steele Chalibs. ant Sonne of Mars, it openeth obstructions, and stayeth the fluxes, &c. This Character Heate ferueth not only Calor. for fire, but allo for great heate. Sometimes Calcinare. C. Z To calcine to burne to powder, & fometimes to prepare by fire to a certaine height and colour. Cementare 2: 2. To Cement mixture Is by a corraliue to adde to any mettall pure, as Gold or filuer, a higher tincture, and alfo to purifie the fame yet further. P. P. Venice One of the of-fpring of Saturne, fanatine, cooling, Ceruffa Venetia. anodine, deficcatiue, &c. A bleffed medi-K K Waxe cine outwards & Cera. inwards, of a temper neither exceedingly too hot, nor too cold, molificatiue, fanatiue, &c. Cinnabriu. A. 33 Cinnabar turall & alfo of Sulphur and Quickfiluer, and vied in Fumes, it spoyleth many, and healeth by chance fome one in killing tenne. EA of Wood Hereof are pre-pared many dif-ferent medicines Ineres Ligni. ofvalue, in Physicke and Chirsrgery, amongest which the causticke ftone, the ordinary Lixiulum, &c. Corallus v.



Characters. 319 Rot one of But a pure me-the foure dicine made by Elements Chymicall Art, Elementa. 0-F.O out of any good thing eyther Animall, vegitable, or minerall, quere Libavig, lib. 2. Alchym. chap. 49. This filtring with Fir Afelt afelt, is a kind of Filtrum. preparation of midicines liquid, to purge them from their terrestrial parts. Horse Chymilts vie to Fimus cines in Horfe-Equinus. dung to putrifie, and is an ancient and worthy workerightly vfed, Uicarins eius eft, MB. Fixing, This is that al good Chy-mickes defire Fixatio. in their workes, but few truly attaine it, but in flead of fixatio, they find vexatio fatic. " Z Verdi- Called commo-ly viride as, and Vardigrees h Flos Æris. ing the ruft of Copper, it is a good aftringent dificcative, and corofiue medicament. A degree first, fecond, or July July Gradus. third, as you fee them G1.G2;G3 defcribed with their feuerall figures. Of any kinde is rumm fo described, but the fingle Cha-Hyems racter is most vied.



Characters. 321	
This flone is vied	
Lapis P Bloud to ftench blee-	1
	11
outwardly, and hath many other vertues medicinable. This is a great fecret in	and the second
Lapis curing a tracture bee-	-
Sabulofus. ing daily given the party, 3-j. and also mixed with the outward medicine and applied to	1
the greefe. This is a	
the greefe. Lapis Granatus. S. Sone The granat This is a Iuell pre- tious in	1
Granatus. S None tious in	
La realized and the second sec	
Lateres. J. J. Stones famaces orother waies.	
T It is often vied in	
Lateres Ponder of preparing medi- Brickes cines as well to	
make good I ute, as also for divers other needfull vies.	- 14
Lixiuium A. A Lye made This is many waies vied very	
Lixiuium. A, A de Lye made Lixiuium. A de A de Solution de Lye made of Albes de Very profitable in hea	
The surger div and inwardly and for caufficke medicines it is the belt.	
Limatura ? ? Filings Vied for the makingof Cro-	
Martis of Horne cus Martis.	
T Lute wied Some suppose	A . T. S. 1
Lutum Cost of the Phi- that the pinch-	
Sapientize 45 or losophers ing of glalles to-	
gether is it, but it is taken for a man, and so meant by divers lear- ned men.	
Lutum - Lute Made of good	
Lutum Communis ZiZiCommon Made of good Clay, with flakes of wool, & falt	
there is as many feuerall Lutes as Chymilts yfe.	1.1.1
Qq 2 Lythar-	1.926

Characters. 322 Lythargirus ofo Oneofthefons Litrhage of Saturne, & is of Gould Auri. partly fo tearmed, for that the tells which refine gould through leade, after are made into Licharge, I meane the Saturne into them. One of the Lythargirus Litharge fons of Saturna of Silner Argenti. supposed to proceed of Luna as aforefaid, but indeed these and the first are fent daily from Holland, made onely of Lead. One other of Litharge of Leade ythargirus the fons of Sa-Plumbi. turn, & is made by every Plumber out of that part of Saturne which walleth to a hardnetle in melting. Marchasita. . . . Wnprepared Of any kind, as Minerals We vulgarly fay lead oare, &c. Mercurius. Y. Y Quicke-The hottelt, the coldest, a true healer, a wicked murderer, a pretious medicine, and a deadly poyfon, a friend that can flatter and lie. fellow This Qnickefil-Mercurius hath deferued ner Inbli-Sublimatus. much praise & med dispraise, as till more scope I omir, for hee hath done me both credie and thame. Quickefil-A worthy me-Mercurius ser precidicine of true Præcipitatus Ditate. with Artills praife vled, of Empericks shamefully abused, for healing and killing be is knowne. Mercurius

	C	baracters		323
Mercurius	"X	x	Mercury	Hic Labor, boc o-
Solis.	ž	A.	of Gold	pus : quod supra me nibil ad me,
true Philosophers on	ely are cap	able of th	his mystery	
Mercurius	'Y	8	Mercury	I DIS OV THE TOP-
Lunz.	E	· *	of Siluer	way of prepara-
tion, or not greatly d	lifferent, b	out are pal	ft my reach	L.
Mercurius	¥.	Ý	Mercury	I have heard ma- ny brags of this
Veneris.	\$	Ŷ	of Copper	medicine, and to
be precious, but Inc	uer could			It is faid that with
Mercurius	ě-	· 2->	Mercury	this medicine, the
Martis.	0	0	ofIron	vertue of the
Loadstone is strengt				This is reported a-
Mercurius	272	·122	Mercury of Tinne.	bleto make of lead
Iouis.	T	T	of 1 mare.	liuis, our - man
Mananing	X	X	to and	not feene it. This is eafily
Mercurius	f.	·LA	Mersury of Lend	drawnfromLead
Saturni. ty, per se, onely by A		~		in a good quanti-
		and the second	Y Y	Containing 28.
Menfis.	II	·L	One mont	b daies, and 28. nights, orfoure
	-diagnoli	els 10 9 mi	dinig to a	whole weekes.
millitalitet 5:	Putto	ATE	Orrei	d Is one of the
Minium.	5	3	Leade	fons of Saturne, cooling drying,
repelling, healing, i	nollifying	, difcuffin	ng, &c.	All late - because a series
	Ø	. D	One	The fixtieth part
Minutum.	A	F	Minute	of one houre.
TA 11	TA	NA	TI	Honey is Laxa-
Mell.	IVL	INT	Hone	y tiue, mundifica- tiue, mollifica-
tiue, fanatice,&c.		And the second s	43	Oleum
The second second	Carriet a		2151	
			the fair and	The second second

Characters. 324 Oyle of And fometimes Oleum. taken for Sulany kinde phur, is as if you would fay, take from Guaiacum his Sal, Sulphur, and Mercury, by his Sulphur you mult vnderstand his oyly part, &c. It is vied for any Phlegma. A Flegma distilled water which is void of Spirit, as role water. Piger Slow Hemick Ap instrument for diffilling, fo Henricus. called, for his exceeding flownes. Plumbum This prepara-Philo/otion is myfti-Philosophorum. phers Leade call, & aboue my reach, the fame Character is alfo vied for the Philosophers stone. Pouder Any fine pow-Puluis. der, and fome. of any thing times it is taken for fubtill flores, and fine fpints of any medicine-Eyther by Purificare Topurifie sublimation or by precipitation, or any kinde of purifying or clenfing. Is diffoluing HAHA Putrifie or opening of Putrefactio mixed mineralls bodies by a naturall, warme, and moift putrefaction, namely by fimus equinus, vel eius Vicarius, MB. A permanent uinta ^c Quinta Effentiall well Ellentia Effentia. digested medicine, without groffe superfluities, drawne from any subliftence eyther animall, vegitable, or minerall. Ouinta

Characters. 325 The quint- This is also caluinta effence of led Aquavita, & Aqua Celestis, & Effentia vini, Winc Alcole vini, and Aqua Ardens, with many other names. Akinde A thing tel-dome vied in of Ratsbane healing, thogh A thing fel-8.3 Realgar. fometimes vied in Alchimy. A preparation Reverberatio Tr. T Chymicalby fire. A retort of Glasse C.A Retorta. Or to caule to Sublimare. To fublime afcend by fire or Art of diffilling very many waies. Discussive, fana-**全心** rimftone tiue, desiccatiue, Sulphur. anodine, repercuffiue, &c. Perfett Sul- A true effential, Sulphur phur vix co- perfect, and v-Philosophorum. niuerfall medignitum cament out of Sol. Common Difcuffiuemű-Sal dificatiue, fa-Salt. natiue, & molt Commune. precious for the life of man, Christaline Pretious A Sal Salt, naturallie Salt like Christall growinginmines Gemma. in Polonia, neere the City of Cracouia, &c. Sal

326	Characters.
Sal	T Salt A falt of a won-
and a set with an and the first of	() derfull kind and
Petræ,	MICOULAS J. TTALER
and, I D	effects admirable both good and cuill.
Sal	July of Salt ly in Turky, but
Amoniacum	Anomiack is comonly made
	kali, common Salt, Vrin &c. Teste Andrea libanio.
Sal galand and	Q. A Salt of an A kinde of ve- heard cailed getable Salt,
Alkali.	Kali but Paracelfus
Charles a	termeth every vegitable Salt Alkaly.
Sal on	Afalt out A falt drawne
Colcotharis.	bead mortuum, and
commonly called	Dead head, which is exceeding aftringent and
drying.	
Salo o 10	+ A Salt of The Salt of Tar-
Tartari, billoun	Argall amedicine of ma-
ny great vertues,bo	oth of it felfe, and alfo for making other medicines.
Succinum	White Commeth from
Album.	S.a S.a Amber Prutia and is a Cordiall medi-
and the second of the second s	diaphoretike, laxatiue, and generally opening all
obstructions.	Contraction in An and and and
Succinum	dr. dr. Yellow Like the former,
Citrinum.	S.E. S.C. Yellow Like the former, but not fo good, yet from this is
	le drawne, feruing for many especiall medicines in-
ward and outward.	· NEWS
Spiritus	OO + Spirit A pure and essen- tiall substance,
Vini.	O * of Wine cordiall, and of
and the second se	nes Liquid, yet wholy combustible.
~	A A good medicine
Sopo.	Sope attractiue, molli- ficatiue, &c.
123 mar 1 2 mil	Stratum
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	and the state of the

ŧ

Characters.

Stratum

The medi- A terme of Art cines laid one often vied viz: or other fiat stratum, su-Super Stratum. per ftratum, that is, first put in of the one, and then of the other till all bee in.

Solutio.

The opening of Opening minerall bodies diuerfly by Vulcans Art.

32

Sigillum Hermetis.

Terra

Tigillum.

Talcum.

Tutia.

Commonly ta-Earth ken for potters earth to make Lute of.

Hermes A kind of Lu-ting or fealing

a more excellent manner.

of Glasses by

A pot wherwith · A melting pot to melt mettals or medicines in, called alfo a Crucible.

Gold fmiths & other Artifls vfe

This minerall is X - X Talke fcarce well known yet, the oyle ther-

> Amedicine com-J Tutty monly knowne, and is made of

> > Is the Lees of

wine dried, wch

the fcumme of copper, or of Copper by combustion.

of is much extolled for beautifying the skinne.

Tartarus.

Argall profitable medicines, artificially prepared. Rr

maketh many

Tumous

Characters. 328 And alfo any V.V Tumors Apoliume or Tumores. fwelling,wherfoeuer in mans body. - - Turbith This with Turbith fome addita-H Minerall ments artifici-Minerall. all, well prepared, is precious in the cure of the French pox. This is the anci-L. An Vicer ent character for Vlcus an Vlcer,& fome Authors haue vled the fame for a wound. It is beftwhich Vitriolum. Du: DCoppras is made of O- W Glasse It is vied for a Glasse Still, and Vitrum. kinde of glaffe. D . & Urine Mans vrine or Vrina. Childrens vrine, it is commonly vled in Alchymy, and some vle it in fomentations, and otherwise in Chirurgery and phyficke.



229.

CERTAINE CHIMI-CALL VERSES, OR GOOD will to young Artifts, from the Author.



Frick

Ome verfes plaine at vacant times, I fram'd and layd alide: Intending youths which leaifure haue, might view what I haue tride.

And as occasion them should leade, might fearch, yea finde and know : The principles which follow heere, from which great treasures flow.

Three principles the Chymiltshold, Each creature doth con aine, And foure the Methodilts 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 seven years good time spend: Continuing still in argument, vntill the time had end. Rr 2

Where-

Chymicall Verfes.

330 Wherefore ambiguoualy to wade, within a fea of strife: l like it not for feare of knockes, I loue a quiet life.

Allworthy Artifts I adore, and duty bindes me fo: Yeathankfully Ile learne of each, the thing I doe not know.

And ere lle seeme once to contend, my will shall be fo even : I know there's three, I yeeld ther's foure: to make the fumme vp feuen.

But wil you know why Chymifts cal their principles but three? With heavenly number it agrees, from all Eternitie.

A Trinity in Deity, moft facred and moft fure : All fhould confeffe in vnity is, was, and fhall endure.

From which as from a perfect guide, each man his worke fhould frame, And in his conversation true, alwaies respect the fame.

In honour of which Deity, true Chymifts daily finde A tripart fubftance for to be of all things following kinde.

Which in the earthly fpheare are found, cach one in his degree.

And

Chymicall Verses.

And these by Artists stiled are Sal, Sulphur, Mercurie.

Who calling vnto reckoning all that Animals doe feeme, Of Vegitables in their kindes, They make no fmall efteeme.

Likewise from minerals each one, great medicines they deriue : Which do root out inueterate greefes and keepe men long aliue.

The Mercarie that's volatill, the Sulphur burnes like fire: The Sal in fundo doth remaine, as christals their defire.

Each of these three to three againe, The Artist 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 mailt prepare, if thou wilt take the paine.

But if that any further feeke, in true Philosophie : The Minerals fix and pure to make that is no worke for me.

I to my Latchet will returne, and reft me in a meane: Good medicines onely to prepare, I holde fufficient gaine.

Rr 3

And

A mouthing things a

Chymicall Verfes.

And vnto young men that haueminde, in Alchymie to venture : Ile fhew them to the Labyrinth, which who fo lift may enter.

332

Fowle hands and face he must not fcorne, if ought good he would finde : With coales and fime to be befmeerd, it is the Chymist kinde.

The trowell, bricke, with hammer oft, and shouell he must vse, The cliffes, the tongs, and bellowes eke, he no way may refuse.

His grates of iron he mult fit, his rings to cut his glasse: With pots of iron, brasse or clay, his furnace he must passe.

The Retort and the Alembicke fafe, with lute he must defend : And vaprous ventils haue in care, those must be often mend.

And why, invaine he makes a fire, which cannot rule the fame: For therein refleth all the art, the pleafure, gaine, and fame.

Yet thats not all he ought to know, that would a Chymift bee . A thoufand things are yet behinde, as he shall finde and see.

But hee that takes delight in ought, regar deth not the paine:

So

Chymicall Verses.

So he may haue the thing he feekes, although it be but vaine.

A Chymift 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 foon before himfelfe, if he miltake the right.

The twelue fignes of the Zodiake, he ought to know by heart, Coniunction, Opposition too of planets, though in part.

The fextile, Trine, and Quadrilecke, 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 alfo, To colliquate, coagulate, and congelate I trow.

To colorate, to corrodate, conglutinate likewife: Coagmentate, coadunate, whereby to win the prize.

333

; bly moisciaupi L how

Some-

Chymicall Verses.

Sometime digeftion needefull is, and deliquation too, Diuaporation is a worke, the Alchymift must doe.

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Where distillations doe preuaile, Distraction takes the head, Then by Elaboration, wife men may be milled.

Election needefullis in all, euaporation too, Expression and extraction are two things that he must doe.

In exhaltations he must firiue, and Ebulitions make, His fermentation oftenrimes will caufe him to awake,

His filterations many are, His fumagations eke, And moft in his fixations, the good man is to leeke,

Gradations then are thought vpon, and granalation more, Incorporation hath his time, Ignifion pincheth fore.

And Leuigation hath his place, and Liquefaction vie : Then to Lutation haue a care, therein be no abufe. To tolories to conoders,

For all mortification can doe, or elfe can fay.

-2000G

inside offering of the Ihope

STREET BURNEL

Lo courquate, congulate

Chymicall Verfes.

I hope multiplication, the cost and paines will pay.

He fuffers Mafaration, and Maturation both, Embracing putrifaction fowle, which many a man would loth.

Precipitation was forgot, purgation goeth before, And by proiection he shall finde, if he berich or poore.

But if his hopes yet chance to faile, Reduction thought vpon, Reftrinction, Reuerberation, and Refolution ftrong.

Then Repurgations often had, with Segregations fine. Some Sublimations duely vs'd, may well become the time.

Stratifigations in due place, Solutions eke in time. Subduction neuer wanting is, a Chymilt to define.

Of Torrefactions he hath ftore, Viuifications hope, But findes vitrification, or vanifat all in fmoke.

Whet shall I fay ? this is not all the Chymist must abide This Labyrinth out, his glasse then breakes, his patience there is tride.

Sſ

344

Chymicall Ver [es.

Yet grant to this although twere more there's no man neuer knew, A worke fo flight and cheape as this, fuch rare effects to fliew.

In gaining health to ficke and fore, preferuing men from woe: Yea fundry waies expelling greefes, which in mans body grow.

By true Elixers of much price, by Quintefenfes high, And many famous medicines more, which I for hafte paffe by.

Though once a Galenist ill led, deuis'd a flanderous rime, Which he in Latin verse put foorth, I know not well the time.

And this it was that followeth next, which if it prooue a lie, Ile no way feeme him to excufe, you haue't as chepe as I.

Alchimia est ars sine arte, cuius subiettum est pars cum parte, Proprium eius probe mentiri, & vltimo mendicatum iri,

But left 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 Chymifts true, their house-doues them withstand:

Fearing

Chymicall Verses.

345

THE

Fearing all will befpent in fmokc, time, goods, yea houfe and land.

A noyfe domefticke fhrill I heare, and I dare ftay no longer: Good friends adue till further time, I must obey the ftronger.

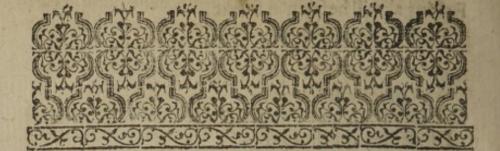
You Chymifts wife that wined are, be warned heere by mee, Search not into this myfterie, except your female gree.

For I have found to my great fmart, when the lift to contend, Then downe goes pot, yea glatfe and all, and I vow to amend.

And neede fayes yeelde, there's fault in him, that flubbornely flands out, Till breech and iacket all be torne, by fearching fecrets out.

Vale.

Sí 2



338

THE TERMESOFART RECITEDFOR-MERLY IN VERSE, ARE heere againe repeated Alphabetically, and more plainely interpreted.



Lbation is the abstraction of dust moths, gret, adhering to a thing with an hares foor, feather, spather, knife, or the like.

Ablution is exaltation, cleanfing vncleane things by often infulion, reducing them to purity.

Alcolifmus is an operation by calcination, ribellation, and other meanes, which reduce th a matter into Alcool, the finest powder that is.

Amalgamation is the putting together, folution, or calcination of familiar mettals, by Argentum visuum, &c,

Aromatization is an artificiall manner of preparation, whereby medicaments are made more fusueolent and odoriferous for the oblectation and strength of the palate, and vitall faculty.

Attrition is a certaine manner of preparation, like grinding on a convenient flone with fome humidity, wherby Lapis Indaicus, Collyria, and the like are prepared.

Buccellatio

Buccellatio is dividing into gobbets, or by peece-meale, Calcination is folution of bodies into Calxor Alcool, by deficcation of the native humidity, by reverberate Ignition, by Amalgamation, by Aquafortis, the fpirit of falt vitrioll, Sulphur, or the like.

Calfattion is a certaine manner of preparing fimple and compound medicaments, not by boyling or burning, but by the moderate heat of the funne, fire, fimus equinus, vel eius vicarius.

Cementation is gradation by cementing.

Cementum is a minerall matter like lute, and penetrating, wherewith mettals fored ouer are reuerberated to cement.

Ceratio is the mollification of an hard thing, vntill it be like wax at the fire.

Cinefaction is ignition converting Vegitables and Animals by a very vehement heat into Cineres.

Circulation is the exaltation of pure liquour, as spirit of wine by circular folution, and coagulation in a Pelican, a moderate heat forcing it.

Clarification is the expurgation of fodide groffe matter from liquid medicaments.

Condunation (fometimes termed by the name of a more excellent fpecies, Congulation) is a perfect and skilfull working, whereby difgregate things are vnited.

Congmentation like to glutination, is by liquate things, on which diffoluing powders are caft, 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 confiftence into a follid malle, by the privation of moilture.

Cottion 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.

Sí 3

Colation

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 Colliquefaction, is the conjunction of manyfufils or liquables to make one compound by eliquation on the fire.

Coloration is, whereby the perfect colour of golde, fil. uer, Philosophers lead, &c. obscured by any sulphurious vapour, is renouated and illustrated by maceration, frequent ablution, in sharpe liquour of Salt, Argal, spirit of wine, wine-vineger, or by an acute past layd on the sayd mettals.

Combussion is ignition, converting bodies by burning them into calx.

Comminution is the reducing of any matter into fuch fine powder by delution, filteration, exiccation, contufion, calcination, cribration, or any other meanes, that no roughnetie or corpulency be felt, as Alcool.

Complexion is the nature of a part hot, colde, moyft, or drie.

Composition is the coadunation of divers things.

Concretion is diuaporation of humidity in fluid things, by gentle decoction on fire.

Confriction is a certaine light Attrition, by which puluerablethings, with the rubbing of the fingers, or a more follid body, are quickly leuigated, as Cerusa Amylum, &c.

Confusion is properly a mixture of fuch liquid things as are fluid, and of one and the fame nature (as of diuers waters by themsfelues, 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,

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and a

mettals, iewels, glaises, &c. by gummes, glue, whites of egges, and the like, the nature of the conglutinated remaining.

Contusion is the beating of groffe bodies into fmaller or very fubtill part.

Corrosion is calcination, reducing things coagulated, by the corroding fpirits of falt, fulphur, by wine-vineger distilled, Aqua fortis, &c. into calx.

Cribration is the preparation of medicaments by a fiue, or fearce.

Deliquation is a preparation of things by melting on the fire.

Deliquium is the liquation of a concrete (as falt, powder calcined. &c. fet in an humid and frigid place (exterternall humidity, r efoluing the ficcitie) that it flow, hauing a watery forme, as is apparant in the preparation of falt of Tarter.

Descension is when the effentiall iuyce diffolued from the matter to be diffilled, is fubducted 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 elsence 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 excipulium sublocated.

Difflation is, when through heat, fpirits arifing, are with a kinde of folles blowen into the aduerfe camera, and there are found coagulated.

Digestion is limple maturation, whereby things vnconcocted in artificiall digestory heat (as food by a naturall in the stomacke) are digested.

Diffelution is a preparation of medicaments fimple, and compounded by fome convenient humidity to a certaine confiftence.

Distraction is a certaine disulfion of divers things before vnited & agreeing together (no respect of one existing or comprehended in another had) every one remaining in his Dimaporation

Divaporation is exhalation by fire of vapour, remaining in liquid lubitances, till all aquofity bee confumed or in more drie, but fumed by torrefaction.

Dulcification is the correction of minerall medicaments by ablutions, and the like.

Duration is either when things mollified at the fire are fet in a colde place to harden : or by boiling to an high confiftence or admixtion of dry powder with them, doe was hard.

Elaboration is a manuall operation, whereby we extract from a fubfiance the most excellent matter, the ignoble parts remooued.

Election is of fimples according to time & feafon wherin they are gathered, and according to the region wherin they grow, that fo the best may be had, and their vigor appeare in vie according to expectation.

Elemation is fubtiliation, when fpiritual parts from the corporall, fubtill from the grotle, the not fixt from the fixed, like fmoke by the force of fire are elevated, and adhering to the colde concaues of the Alymbecke, doe thicken and convert 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 diffolution, is produced to an higher dignity of fubftance and vertue, and a greater degree of purity.

Exhalation is when the fpirit of anie matter follid, or in powder (being put into a platter, or any other conuenient veffell fet on coales) is eleuated through heat, and vanifheth 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

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Extinction is the fuffocation of a matter fiery and hot into fome humidity.

Extraction is a segregation of an elsence from a corporeous concretion, by digestion in Balneo his feces, left in funde, as Rhabarbarum in spirit of wine infused, manifesteth.

Fermentation is the exaltation of a maffie fubftance, by the admiffion of Fermentam, which doth penetrate it wholly (his vertue diffributed by a fpirit) and inverteth it into his owne nature.

Ferrumination is the joining together of a fracture in one & the fame mettall, or of divers mettals, by a minerall flux,

Filteration called percolation, by Filtrum a chymicall colum is fubduction of thin aquofity in humid things, the thicke and oyly fubflances refifting.

Fiftion, fee Section. anshadanogy aland an dias

Fixation is the adjuefaction of volatill and fpirituall bodies to fire by calcination, gentle and continuall decoction, frequent fublimation, folution, and coagulation often iterated, or by addition of a matter fixed, that fo they may endure fire and not flie away.

Fraction is the breaking of fome matter with ones hand, or with an inftrument,

Frixim is the preparation of fome medicaments, with oyle, butter, wine, vineger, &c. in a convenient vellell, for the correcting of bad qualities in them.

Fulmination, derived of fulmen a Lattin word, fignifying fire breaking out of the clowdes, caufing a fudden light great and bright, is a metallicall gradation, with excoction to an abfolute perfection in *Cineritio*, whofe purity is declared by an effulgent fplendor.

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 feparation of the pure from the impure.

Tt

Gradation

Gradationis an exaltation of mettals in the degree of affections, whereby weight, colour, and conflancy are brought to an excellent measure, but the substance vnalteted: to golde is rubified, fixed- and purified.

Granulation proper to mettals, by infulion on fire, and effulion into water is their comminution into granula, or very finall drops like Grana Paradifi.

HumeEntion, ice Irrigation.

344

Ignition is calcination, the fire reducing violent bodies into calx.

Illiquation is the commission of terrene bodies with mettalline (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 elevated, and not finding vent, doth fall backe vpon the fame, and often washeth it with humectations, so long as it being coagulated, can no more ascend, but remaineth wholly fixt.

Imbution, fee Infusion and maceration.

Inceration is the mixture of humidity with that which is dry, by a gentle and not hafty combibition to the confifience of mollified way.

Iucineration, see Cinefaction.

Incorporation is a fudden addition of fo much humidity to ficcate matters as is required in the true confiftence of a mixt body, palt, or a matte.

Infection is the giving of a tindure or colour to a medicament by immeriton.

Infusion is the preparation of medicaments, cut or bruifed in fome humidity convenient 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 fetting of two pots (the head of the vppermolt being very well couered and luted, but his bottome boared full of little pin-holes, and fure fastened to that which is vnderneathin the ground, and burying them with earth to a certaine depth, having a circular fire made for

for distallatory transudation per descensum.

Infolation is the preparation of fimple compound things by the heat of funne in the fummer, a gentle fire in the winter, in Balneo, or in fimo equino.

Irrigation not much vnlike immersion is an aspersion of humidity vpon things that are to be dissoluted, that so they may the more easily deliquate.

Leuigation is the reduction of any hard and ponderous matter by comminution, and diligent collifion into fine powder, like Alcool.

Limation proper to mettals (as steele, iron, brasse, leade, &c.) is a preparation with a file, whereby they yeelde dust for divers vies.

Liquation is when as that which fhall bee made into one body, is diffolued, that it can flow abroad like waves.

Liquefaction is the diffolution of a minerall body, by the force of a very gentle fire.

Letion is a preparation of medicaments in water, or fome other liquour to remooue fome cuill and hurtfull, and to procure fome 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 floppeth moft exactly the orificium of the veffell, if no vapour must passe out.

Maceration is preparation of things not vnlike to Hume-Elation in the manner of working, but in time, for fome are infuled 3.4. or moe moneths, and fome a fhorter space.

Maturation is exaltation of a substance, rude and crude to that which is mature and perfect.

Mission is such a composition of bodies, as inceration, incorporation, colliquation, and confusion doe declare.

Mollition is the beginning of liquation, yet fome things are mollified (as onions, conchæ, corrall, iuory, vngulæ, &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.

TE 2

Mundia-

Mundification is the purgation of any matter by few or many operations from that which is fordid & 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 diffolued into water, Sale Armoniacke or Mercury caft upon then, either by the abstraction of the corroding vapour, are reuerberated into calx.

Probation is the examination of any matter, whereby we difcerne what is excellent and perfect, and what corrupt.

Proiettion is an exaltation cheefely in mettals, by a medicine caft vpon them which will fuddenly penetrate and transfigurate, giving them another tincture.

Prole Station is extraction by attenuation of fubtill parts, fo that by the inclination of their rarified nature, they may be carried from the more grotle parts into a contrary place and there confift.

Purgation like to separation, is the clarification of impureliquour, having a thicke sedement and spume by decoction.

Putrifaction is the refolution of a mixt body by a naturall putritude in callido humido, or fimo equino, &cc. whereby it may be made, more excellent.

gether by foure vnequal parts.

Quinta effentia is an absolute, pure and wel-digested medicine drawen from any substance, either animall, vegitable, or minerall.

Rafion 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 reftore a thing changed to his fomer effate and condition.

Repurgatio

347

Repargation is, whereby mettals and other fubstances are purged from superfluities of another nature, adhering to them.

Refolution (the way to molt excellent operations of Alchymie, caufing both elements and cœleftiall effences to feparate from their elementarie composition) of things commixt, is when the parts one with another (the veffell wherein they are, being very close ftopped) depart; heat working, and refoluing them by moisture.

Restinction is a gradation, whereby mettals or the like, candefied by fire, are restinguished in liquor of exaltation, and thereby made more noble, by how much a more excellent tincture and glotse is fet vpon them.

Remerberation is ignition reducing bodies (the fire quick remerberating and refecting) into a very fubtill calx.

Section is the cutting of things great into leffer parts, for the prefent occasion.

Segregation is the folution of that which was whole and perfect into parts diuided, which flow not together as colliquables ditfolued

Separationis, whereby parts diffracted are feparated cuery one alike having his feuerall being in himfelfe.

Siccation is the drying vp of excrementall humiditie in bodies, before the fire, funne, in the fhade, or the like conuenient place.

Solution, a principall part of chymicall practice, wherby the incorporation of things coagulated, is diffolued and attenuated.

Subduction is an abstraction of inyces, oyles, and other liquid matters downeward by percolation, filteration, and the like.

Sublimation is when that which is extracted is driven to the fublime part of the verfell, and there fublisteth, or when as betweene that which is fublimed, and the dead head an aery space doth intercede.

Subtiliation is diffulution, feparating the fubtill parts from the groffe.

Tt 3 Stratification

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Stratification, or firatum superstratum well knowen to Chymilis, and vied in cementation, is strewing of corroding powder, or the like, vpon plates of mettall by course.

Torrefaction like ficcation, but more violent, is an operation drying, speedily, parching and scorching that which is to be dryed before, or ouer the fire.

Transmutation is the mutation of a thing in fubstance, colour, or quality.

Transudation is when in descensory distillation, the effence prouoked, sweateth through, and is carried guitatim into the receiver.

Vitrification is Combustion, converting calx and cineres into transparant glasse.

Uftion 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 have written by way of instruetion, namely, a Dispensatory touching the precedent particulars, with somewhat also concerning the cure of the French Disease, with symptomes thereof, namely the Gonorêa, the Bubo veneria, the Hernia Humoralis, &c. But time hath ouertaken mee, so that now I am forced to pawse 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,

1. We

FIRIS.



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FINIS.

