Maison rustique, or the covntrey farme / compiled in the French tongue by Charles Steuens and John Liebault ... and translated into English by Richard Svrflet ... Also a short collection of the hunting of the hart, wilde bore, hare, fox, gray, cony; of birds and faulconrie.

Contributors

Estienne, Charles, 1504-approximately 1564.
Liébault, Jean, approximately 1535-1596.
Surflet, Richard, active 1600-1616.

Publication/Creation

London : Printed by A. Hatfield for I. Norton and I. Bill, 1606.

Persistent URL

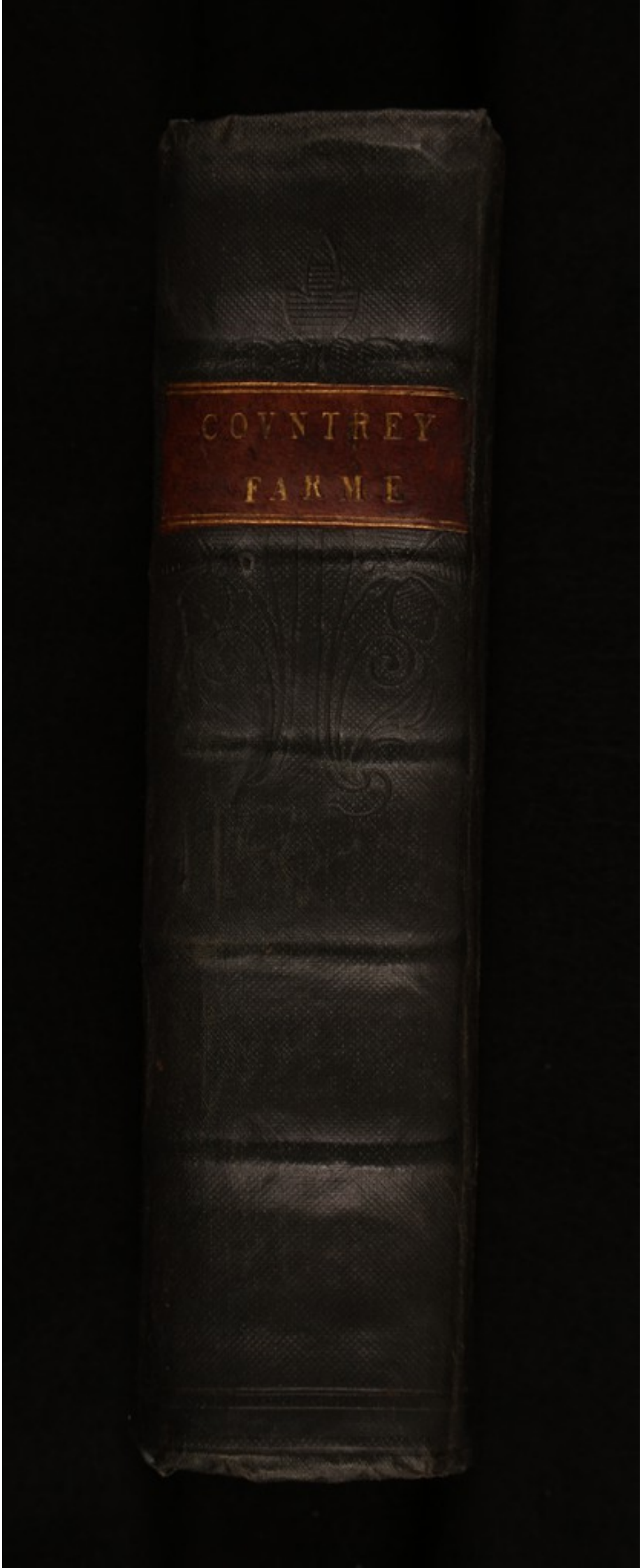
https://wellcomecollection.org/works/zxsmggby

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org


COVNTREY
FARME

6083 (2)
/B/2

N

S.T.C 10548

non Par 137 6. 82025

Maison Rustique,
OR
THE COVNTREY FARME:

Compiled in the French tongue by *Charles Steuens* and *John Liebault* Doctors of Physicke:

And translated into English by RICHARD SVRFLET *Practitioner in* Physicke.

Also a short collection of the hunting of the *Hart, Wilde Bore, Hare, Fox, Gray, Cony; of* Birds and Faulconrie.

The Contents whereof are to be seene in the Page following.

LONDON
Printed by ARNOLD HATFIELD for *Iohn Norton* and *Iohn Bill.*
1606.

THE CONTENTS.

THere is conteined in this last edition whatsoeuer can be required for the building or good ordering of a Husbandmans house or Countrey Farme : as namely to foresee the changes and alterations of times, to know the motions and powers of the Sun and Moone, vpon the things about which Husbandry is occupied, as to cure the sicke labouring man, to cure beasts and flying fowles of all sorts, to dresse, plant or make Gardens as well for the Kitchen and Physicke vse, as also in quarters, with many faire and cunning portraitures, to make compartments of diuers fashions in euery quarter: with a large description of the herbe Nicotiana *or* Petum, *as also of the root* Mechoacan : *to plant, graft, and order Orenge trees, Citron trees, and such other strange trees : to order Bees : to make Conserues, to preserue fruits, flowers, roots and rindes : to make Hony and Wax : to plant and graft all sorts of fruit trees : to make Cider, Perrie, drinke of Ceruises and oiles : to distill waters and oiles, or quintessences of whatsoeuer the Husbandmans store and increase, with many paternes of alembecks for the distilling of them : to feed and preserue Silke wormes : to make & maintaine Medow grounds, Fish ponds of running and standing waters : to take Fishes : to measure and till Corne ground : to bake bread : to dresse baked meats : to brew beere : to trimme vines : to make medicinable wines, with a very large and excellent discourse touching the nature and qualitie of wine in generall : and after that, another speciall and particular one of all such wines as grow in* Gasconie, Languedoc, Touraine, Orleans, Paris, *and other countries of France : to plant woods of timber trees and vndergrowth : to make a Warren : to breed Herons : and to imparke wilde beasts. And lastly in the end a briefe discourse of the nature, maner of taking and feeding of the Nightingale, Linnet, Goldfinch, Siskin, Larke, and other such singing and melodious birds.*

TO THE RIGHT HONOVRABLE, SIR PEREGRINE BARTIE Knight, *Lord Willoughbie, Baron of Willoughbie and* Eresbie, Lord Gouernour of her Maiesties *towne of Barwicke, and Lord Warden of the East Marches.*

AS *Darius* in his deepe affecting desire made choise of many such subiects and captaines, as *Zopyrus*; and *Eacus* after that the pestilence had vnpeopled *Thessalia*, did wish that the swarmes of pismires (whereupon as it is said, the *Myrmidons* tooke their names) might be turned into men: So I am vndoubtedly persuaded (right honourable) that you hauing made your chiefe and special choise of the things which are from aboue, and striuing therein to set vp your rest of contentation; would with like delight haue welcomed some such thing, as had concerned the dressing and adorning of the soule: rather than any course, countrey and domesticall discourse (such as I am here to offer vnto your Honour) being commonly esteemed but as a tale of a turse, or matter for a mattocke. And indeed I could haue wished that the Heauens had stoupt as lowe to haue reuealed vnto you some of her sacred mysteries: as the earth hath aduanced it selfe heerein, and opened her mouth to shew vnto

Plutarch. in Reg. Apoh.

Seruius in 2. Aeneid.

you her cabinet of rich prouiſion, and casket of precious iewels. Or elſe, that according to your place and calling, ſome *Cæſar* had affoorded you ſome learned Commentarie of Martiall ſtratagemes: or ſome *Lycurgus*, ſuch treatiſe of Policie, as wherein you might haue had pointed out and delineated, as with *Polycletus* his golden rule, the exquiſite rules of vpright iuſtice and lawes of Common-wealths ſafe gouernment. But ſeeing this is that mite which my ſtore will allow me at this time to offer vnto your Honour, accepting the ſame, may it pleaſe you to looke a little thereupon, and conſider what varietie and ſtore of rarities it moſt plentifully affoordeth: and I doubt not but that you ſhall finde it as pleaſant to your Honor as *Virgil* knew his to be auailable to Husbandmen. And that in reſpect of the ſubiect matter, which (although others following their πρότερας φροντίδας, and preiudicate opinions haue accounted baſe and vile) I know your Honour doth admire and (much like vnto the Poet in another point crying out, *Nec vox hominem ſonat, O Dea certe!*) ſay; I do not take this earth to be worthy to be accounted of in contemptible wiſe, but rather to be held as a ſoueraigne Empreſſe, and ſole Monarch ouer earthly creatures, as wearing by beſt right and title the naturall imperiall crowne: A Diuine ſage, as wearing not only the lawrell, but alſo euery other beautifull and flowring branch that may be enſigne of the ſame: A celeſtiall body, as one that being well viewed round about, will be found for hew and ornaments incomparable: And laſtly, a mother of celeſtiall offspring. For if we conſider it in his figure, we ſhall finde it to be exactly ſphæricall and round. If in his matter, it is ſuch as is full of conception, and that not with one or two, nor yet eleuen at once, as was that *Dorothie* of whom *Franciſcus Picus Mirandula* writeth: neither yet with ſo few as ſix and thirtie, as was that noble woman called *Margaret*, dwelling in the territories of Cracouia, and mentioned by *Martinus Cromerus*: but with an infinite number of millions; inſomuch as that in that reſpect, it may be compared to thoſe *Inſecta animalia*, which haue not their life and vitall power, reſtrained more vnto ſome one part of their bodies than to another, but to the whole indifferently and alike. For ſo fruitfull is this

Ouid. libr. 1. Metamorph.

Parrh. in Chirug. l. 24. c. 3.

Danæus in Phyſic. Tract. 5. c. 27.

great

great mother of the world, as that not only in her wombe and inward bowels, she conceiueth, perfecteth and bringeth forth most precious, seruiceable and beautifull babes : but in euerie other part, euen in her most superficiall and outward crust. For what is there which golde, siluer, minerals, and precious stones, may not be matcht withall? How durable, faire, and seruiceable are they ? And what pleasure, profit, or reliefe against hard and vnsupportable necessitie, like to that of so manifolde sorts of corne, trees, herbes, flowers, seedes, licours, gummes, beasts, birds and wormes ? Yea, what so excellent a creature as man and woman, the verie quintessence and *Summum arcanum* of all the extractions and preparations that euer were or shall be made out of this earthly masse ? For although that hence arise the matter of those strange and admirable bodies, which worke so much wonder in the mindes of the common people (namely, the firie and therefore fearefull meteors, called by the names of the firie pillar, firie shaft, burning candle, night flashes, skipping goat, flying sparks, and blazing starres : and those other not firy, and therefore not so fearefull, as windes, whirlewindes, and earthquakes) yet there is not any one nor all of them to be compared with man and woman, called by *Plinie* a little world, and by *Zoroaster* the vttermost endeuour of nature. Neither shall you finde that it can want any one of these perfections, if you doe but weigh how that it was made to be the mother & nurse of euery liuing thing, and therefore to containe whatsoeuer necessarie thing that might be of vse, either for the generation or nourishment of any or all the liuing things that are. Neither yet seeing it was made and is mainteined by his word, by whom alone euery thing hath not only his being, but also to be such as it is, whether of things in heauen, earth, or in the depths : and without whom likewise nothing can hereafter be, that now is not, or continue, which already is. And certainly we can not deeme but that it held this diuine reputation amongst those profound searchers out of natures secrets, and liuely shadowers and setters foorth of natures workes : the sonnes of the Muses. For in the light of their piercing reason, they (falling to admire the surpassing prerogatiues that the earth was endowed withall) could not

Scribon. Phyf. in cap. de Meteor.

but assigne such a diuine power to the ordering and disposing of euery thing concerning the same, as should both for name and shape excell all the rest of the inferiour regents, more than any Emperour that euer was, did excell his least viceroy: And therefore could not finde how better to expresse such rurall god, than by calling of him *Pan*, and attributing vnto him the comprehending of all things, as one in whom nothing was omitted or wanting that can be wished for; as also by acknowledging the seuerall sorts of inferiour gods, in such a maner, as was to make them commanders of such petie dominions and bounded particulars, as manifestly appeare vnto all to be the members of his vniuersall iurisdiction. For so they haue thought good to tie *Eolus* to his windes, and *Bacchus* to his wines, *Pluto* to his lake of infernall torment, and *Ceres* to corne, *Siluanus* to the woods, *Flora* to flowers, and *Pomona* to apples, &c. From the earth likewise it is that there are so many Emperours, Kings, Queenes, Archdukes, Dukes, Marquesses, Earles, &c. being all called Princes of the earth, as not only begotten and borne of earthly matter: but also for that according to the largenesse of the lands which they holde in their possession; so is their power, magnificence, and renowme. Furthermore, of or from the earth is ministred matter to defend or offend, feed or famish, cherish or starue, make blinde or restore sight, to ouerturne or build vp great towers, to giue or take away light, to procure health or sickenesse, foes or friends, peace or warre, pleasure or paine, sorow or mirth, taste or distaste, sleepe or watchfulnesse, sores or soundnesse, barrennesse, or fruitfulnesse, life or death: And what not? Yea, if you should desire to looke vpon the counterfet of beauty, or to know diuine *Pandora* her manifold other graces, you need not farre to search, seeing herein irreprehensible shape, surpassing faireneſſe, infinite riches, rare attire, robes, ornaments, issue, abilitie, vtilitie, wisdome, and gouernment: seeing it also (as the center of the world) attended with so many glittering globes which the heauens do containe, euery one readie and prest to applie themselues, and whatsoeuer is in them in all seruiceable sort, for the effecting of her affaires. For who is he that vpon such grounds can refraine as absolute-

Hesiod. lib. 1. ἔργ. καὶ Ἡμερ.

ly

ly to giue ſentence with it, againſt all ſorts of creatures (not inhabiting the higheſt heauens) as euer was giuen with *Helena* for beautie, *Penelope* for chaſtitie, *Aeneas* for pietie, or *Themiſtocles* for faſtneſſe of memorie? And finally, this ſacred goddeſſe, as ſhe ſheweth her beautie, in being clothed in her gayeſt colours, and her perfection in her naturall kindneſſe, by preſſing out of her neuer drying breſts (though euermore conceiued) euen millions of ſtreames to feed (as with ſweet milke) both the yong and olde fruit of her wombe: ſo if you pleaſe to call to minde ſuch names, as the Grecians in their wiſdome haue giuen therunto, which are γαῖα, γαίη, or γῆ, of the verbe γαίω to be glorious or to excell; or the names affoorded it in the Holie tongue, which are ארמות and בר (the one hauing relation to that kind of earth which bringeth forth food for man, and the other to that which feedeth cattell) you ſhall cleerely ſee that there can not too reuerend an eſtimation be had of the earth; and that it is to faile and come ſhort of the ſcope of the Creatour (by whom firſt and principally all names are giuen) to account thereof in any baſe and vile maner. Now ſeeing the earth is ſo diuine a ſubſtance as hath beene proued, and that euery man, as alſo his labours, are ſo much the more or leſſe to be regarded or honoured, as the ſubiect is whereabout he is occupied: I cannot doubt but that this ſo renowmed a Grace ſhall be vouchſafed to haue conferd all due and worthy dignity and grace vpon ſuch as take paines like deuoted fauorites and feruent true louers, to make her admired and honoured of all. Eſpecially the ſame falling out not vpon any light and wanton fanſies, that yong and youthfull yeeres might breed; (her laſt and worſt age hauing alreadie very deeply ſeized vpon her:) but rather of intire affection (if not compulſiue duty) pricking them forward (ſo much as lieth in them) to plucke off her ſtiffe, hard, and drie-growen ſlough, that ſo ſhe might receiue as it were a ſecond birth, to the doubling of the threed of her liuely and luſty dayes. And that vpon both the ſorts of them, as namely thoſe which ſhape their courſe to the purchaſing of this hauen through the ſtraits of painfull toile: and the other who endure hard ſtormes, till led by learnings loadſtone, they haue alſo diſcouered the ſame by skilfull precept. And the

Ouid. in Epiſt.
Virg. in Aeneid.
Plut. in epit. de vit.

rather

2.Chro.26.10. rather, seeing that as wisdome it selfe: (calling the first אוהב
Genes.4.2. ארמות and עבר אדמה that is, louers and tillers of the earth)
the practise of the Worthies of all ages and nations, whether
you call to minde the Romans amongst the Gentiles; or the
2.Sam.9.14. Kings and kingly race amongst the Iewes: and thirdly the te-
Olymp. Nemesian. in 2. Eclog. Ouid. lib. 2. de Ponto. stimonies of prophane writers, *Dij pecorum pauere greges:* And *Tempus in agrorum cultu consumere dulce est*, haue not suffered them to want their due laud and praise: so the common and delightfull reading and studying of the second; besides the lawrell garland and fauour with preferment at the hands of the mightiest Princes, euer readie and ordained for good writers, doth sufficiently declare their merit and desert; yea vnlettered and senseleſſe works which skill hath framed can not but approue and praise the workeman: and consequently the happie hand that was imployed in penning and pointing out the sum of all that arte and cunning. Againe if such as faithfully set downe the acts, the speeches and seuerall occurrences of persons and times for performing so woonderfull a worke, as to make the things past and perished in the first breathing of the world, still to liue and yeeld forth a liuely breath vnto the last and finall end of all; and on the contrary that which shall be last, and neuer was before, to be all beset with the hoary haires of the very first and eldest antiquities, be truely worthy of immortall honour: then how much more should they, who from painfull plodded precept haue reuealed the knowledge of bringing forth, as also of recording whatsoeuer such famous deeds or sayings? Wherefore accept and take in good part R. Honourable, (as one who can neuer let slip any the least kindnesse that hath beene offered to a mother) this laboured worke the magazin and store-house of all such knowledge, as may make for the honour, dignity, maintenance, and beautie of that common mother; from whose wombe we (euen all of vs) are not only descended, but by whom we are still sustained; and into whose bosome death shall no sooner cast vs, than we shall be welcome, louingly receiued, throughly and indistinctly reunited, and safely reserued vntil the great day of summons, whereupon she will as readily render and repay whatsoeuer hath beene thus committed to her custodie and charge. And that

God

God that ſhall ſend forth his glorious angels to the executing of this great citation and ſummons; and who hath raiſed and deriued you from an honourable, princely, yea a Chriſtian and truely religious ſtemme, (vouchſafed the great dignity of fellow ſuffering with Chriſt, and that in a deepe degree;) continued your life, and drawen out your dayes in his feare, and the loue of his trueth according to ſinceritie; and made you as a wall of braſſe to the daunting and diſappointing of the power of the proud idolaters and bloudy *Nimrods* of our time: giue you ſtill ſo to proceed; that ſo euen dying you may not onely ſhew forth the flouriſhing ſtate of a greene oliue tree planted in the Courts of the Lord; but leaue behind you the ſprouts of pietie and magnanimitie, in all vnfained holineſſe, prudencie and fortitude to expreſſe and repreſent you vnto their liues endes.

* * *

Your Honours in all humble dutifulneſſe,

RICHARD SVRFLET.

To the courteous Reader.

WE see it in common experience (gentle Reader) that such Cookes as can contriue and make of some one stuffe (and that in it selfe little regarded and lesse vsed) either by adding of some few things (and those not costly) or else by their labour or maner of preparing many both pleasant and holesome dishes, are had in high account and estimation. And that that Musitian which can varie most vpon a plaine song, is reputed as chiefe in his profession. Then plie thy selfe and let nothing hinder that Liebault for like, but far greater art, should reape of thee the like affection and intire deuotion of a friendly heart. The learned man seemeth to me to haue made this long digression and tutning aside out of his direct way, namely the affaires of his particular calling, vpon sore deepe touch wherewith he had felt himselfe mooued to labour the relieuing of the miserable state of mankinde, which (either through ignorance or sinister employment of the gifts of his minde and nature, or other goods) he found euery where either pinched with penury, yea worne out with want, and (as it were) fast shut vp in prison farre from all sufficiency: or els loosely and lewdly running riot; not only ceasing from the duties which he should and could do, but also following such practises as lawfully he neither could nor should doe. For canst thou possibly auoid him whosoeuer thou art? If thou be one of great place and possessions, he teacheth thee to charge thy selfe as thy reuenues will liberally reach, taking heed of prodigalitie; and stirreth thee vp to the knowledge of the ordering and dressing of ground or whatsoeuer other thing: that so thou mayest not onely see what is to be done and how, but also iudge thereof when it is done. If an inferior person and hauing nothing but what thou laboures for, lacking also skill, and so suffering thy field to grow barren: he teacheth thee all good meanes for the making of it fruitfull. If for lacke of will pouerty come vpon thee as an armed man, know that there is neuer a precept of painfull toile and laborious husbandrie thorowout the whole booke, but it soundeth an alarum, and proclaimeth an open defiance against thee as a sluggard. If through skill ioyned with will thou reape the plentifull increase of a rich haruest, but abuse it, to the malicious vexing and troubling of thy neighbour in the

law,

law, or to the corrupting of the honeſt and chaſt liues of maides, or any of thy neighbours wiues, he calleth thee from ſuch courſes to the labours of thy ground: for ſcarce to take thy lawfull recreation at lawfull delights (ſuch as are hauking and hunting) will hee affoord thee any leaſure: If a farmer, he teacheth thee kindneſſe, by deuiſing ſome thing to gratifie thy lord withall; and gentlenes in louingly intreating thy ſeruants. If thy neighbour inioy any goodly commoditie of graſſe, corne, or other dead thing, or any liuing thing that is excellent, becauſe he would not haue thee to looke vpon the ſame with a repining, greedy and couetous eye; he calleth thee to the prouiding of ſuch of thine, by teaching thee how to doe it. If thou be a ſeruant, he willeth thee to be painfull and pitifull; that ſo all thy buſineſſe may be well done and in due time: and the beaſts wherewith thou art charged, may be tendred of thee in all mildneſſe. And finally, that all vnhoneſt and diſgracefull wayes may be far from thee, he hath taken the paines to inſtruct thee in ſo many things, as that if thou wilt apply thy ſelfe thereto, and to doe them well: thou ſhalt not finde the leaſure to lend a thought to the euill that might allure thee. And that he might not be miſtaken and thought to forget that woman was made for a helper, he hath called her to her taske, and that neither little nor conſiſting of a few or baſe things, hauing committed to her (beſides many other matters) the cure and charge of families health. But leauing to ſpeake any more of her charge in particular, I could wiſh all ſuch of that ſex as are religious, to looke before they leape, and to be wiſe according to ſobriety and grauity: Sobriety, not medling aboue their place and reach in matters of Phyſicke: and grauitie, as not hauing any thing to doe in the matter of Fukes, either for vſing or preparing of them; ſeeing they argue, if not plainly prooue, a light, a looſe and verie ſinfull life. And finally, ſeeing that the whole earth was once a Tempe, an Eden (that is, a place of all pleaſures and delights) and the aſſigned poſſeſſion and naturall inheritance of man and woman to labour and liue in with exceeding ioy and felicity; and that through their ſinne it was curſed, and they caſt out of the moſt pleaſant, commodious, and beneficiall part thereof: I could wiſh them ioyntly to record ſuch their former felicity and the loſſe thereof, to the end they may apply their hearts vnto wiſdome, and learne that though they labour, yet if they wallow in ſinnes, they doe but throw downe twiſe as much as they build vp, deſtroy and marre more than they

make

make; driue far away the creatures of meat and maintenance, which they labour so greedily to scrape and pull vnto them; and euen reaue the earth (if it were possible) of all maner of fruits & increase, that so it might not any more either feed or clothe them. For knowledge, skill, toile, paine, rising early, lying downe late, with euerie other helpe doth loose his vertue and come short of his end; if delight in sinne be ioyned as a companion therewithall: it being the heauie load and burden vnder which all creatures grone; the burning ague that drieth vp all sap and moisture; and that cursed seed which cauſeth them as a viperous brood not only to fret out their mothers bowels and bring a curse vpon her bodie; but thereby also to curse and crosse themselues in all that wherein they would most gladly thriue and prosper. Thus (gentle Reader) hauing commended vnto thee the Authours due and drift; and mine owne aduice how thou maist most certeinly atteine the same, I leaue thee; hoping, that as they are things that match and sute so together as that one of them can not well goe without the other; so thou wilt apprehend and lay holde of them all, as that thou wilt neuer suffer any of them to be lost or lie idle.

Farewell.

To the high and mightie Lord Mesfire *Iaques of Crusoll, Duke of Vzez, Peere* of France, Earle of Crusoll, Lord of *Asser and Prince of Soyon.*

MY L. mongst all the sciences which man can attaine either by contemplation or practise, there seemeth vnto me to be no one, which more rouseth vp the spirit of man, which more rauisheth his senses, which causeth greater admiration of the workes of God and nature, which bringeth greater contentment and recreation to the wearied and ouerlaboured spirits, or which can be more profitable & necessarie for the life of man, then husbandrie: wherein we doe not onely see with our eies and handle with our handes the workes of nature: but (which is more) wee finde out thereby the incomprehensible power and greatnesse of God, which of a small corne, pippin, nut, tender twig and small plant, causeth to grow vp, trees, herbes, and infinite store of fruits: therein we acknowledge the signes and bright shining beames of the goodnes and bountifulnes of the great Lord and Creator towardes his creatures, naturally and euidently to appeere and shine, because that of the things growing out of the earth, he nourisheth, sustaineth and maintaineth our humane life: therein also wee conceiue maruellous exceeding pleasure to see the trees and herbes at certaine times to spring out of the bosome and wombe of their tender and naturall nourse. To be briefe, we learne there what manner of life we ought to liue, as, not to be idle, to increase that which is ours, to contemne daintinesse, pleasures, ambition, and such other vanities. This was the cause why our first parents did giue themselues to the tilling of the earth rather then vnto anie other exercises or pastimes: as if this skill and profession had beene grafted in the spirit of the first man, euen at once and together with the first breath and light of life, to the ende that he and his ofspring might be stirred vp and addicted to till the earth, the better to acknowledge the greatnesse of God, to liue more holy, and in greater innocencie, to be more free and void of enuie, debate, couetousnesse, and other vaine courses vsed of the world. That so it was, that *Adam* (hunted out of the pleasant garden for his transgression) found no better meanes for his necessarie reliefe, and to serue him for the staying of his minde and hart in the middest of his pensiueneese and most greeuous calamities which were inflicted vpon him as a punishment for his offences: but to labour the ground, both he and his children. *Noe* after that the flood had purged

and

and punished the wickednesse of men, was the first that planted the Vine, and made his sonnes dressers of Vines. *Syracke* valuing at a high price the plaine and simple life of the husbandman, taught him first how he ought to till the earth with the plough, to pricke the oxe with the goade, to fat kine, and to feed all sorts of beastes. *Abraham* delighted himselfe beyond measure in the Shepherds life: *Saul* in keeping of Asses: *Dauid* in keeping of sheepe, in so much as that both these were called from the folde to the bearing of the royall scepter. *Elisaus* also and *Amos* of poore shepheards, were made Prophets, and faithfull interpreters of the word of God. To be briefe, the most worthie amongst our forefathers, euen such as are renowmed in holie Scripture for their vertue and excellencie were first of all labourers, and afterward by God taken from the plough, the cart, and feeding of cattell, to be imploied in a more excellent calling: this countrie life being not onely more holy, innocent and iust; but also more pleasing and acceptable vnto God, & that which receiueth moe blessings then anie other from him. But let vs passe ouer the sacred Histories, and come to the prophane. This profession through the sweetnesse, pleasantnes, and libertie found therein, hath so effectually allured and drawne vnto it the good liking of men, as that verie manie great worthies haue left and forsaken their townes, theaters, pillars, images, and all manner of stately buildings and monuments of magnificencie, despised their purple robes, imperiall crownes, and sweete perfumes, and addicted themselues to husbandrie. *Cyrus* the great King of the Persians in whom shined the glorie of all Maiestie was neuer better contented, then when he could busie and occupie himselfe in trimming vp and contriuing some one or other comely plot of delight and pleasure, and set some certaine number of trees in ranke and order chesse or checker-wise. *Diocletian* the Emperour, of his owne accord, and without any manner of compulsion, forsooke the imperial scepter, and that for the exceeding pleasure he tooke in the artificiall contriuing and quartering out of plots, and other matters of gardening, which he manifested to be the greater, in as much as he could not withhold his owne hands in helping forward of the worke. Many both Senators and Dictators, as also Consuls of Rome, commaunding and gouerning one of the most flourishing states of the world; haue taken themselues then to be most easied, and at greatest leasure, when they haue beene most seriously playing the husbandmen: and neuer so well contented and pleased with themselues, as when being let loose and freed from publique affaires, they might haue their full swinge and free scope to attend the husbanding of the earth. Euen so for certaine (as *Plinie* saith) the earth (in no part behinde with due thankefulnesse for such honour) was neuer so fertill and fruitfull in all kinds of fruits, as when it was adorned with a purple plough, and vouchsafed the honour of inioying a triumphant & victorious plough swaine.

Many

Many Kings, Emperours, and Monarches, as well Grecians as Romanes, haue from all times had in so great reputation the champion life, as that to defraud their tedious times and irkesome occurrences, being the greatest part of their life, they would withdraw themselues into the fields, and therein sport themselues with singular delight in handling, trimming and dressing of plants with their owne handes, whereunto they further gaue this honour, not onely to call them by their owne names, as the herbe Gentian, Lysimachie, Teucrium, Armoise, Eupatorie, and many others, doe witnesse: but also which is more maruellous, they vouchsafed to take their surnames from the sayd plants, as witnesse the Fabij, Lentuli, Pisones, Curij, Ciceriones, and diuers other noble families amongst the Romans. Now then, if the vse and practise of this science hath beene so greatly beloued, valued, and cherished for the incredible pleasure and profit conteined therein; certeinly the treatises and writings concerning the same put foorth by many learned men in diuers languages, haue not purchased any lesse credit or estimation among the common sort of people. Weigh and consider I pray you how greatly the bookes of husbandry written in Greeke by *Orpheus*, *Hesiodus*, *Musæus*, *Hieron*, and *Archelas*, are esteemed? How greatly the workes of *Mago* written in the Punick toong were accounted of throughout the whole world, which (as histories make mention) were carried to Rome as an exquisite and rare treasure after the ruines and ouerthrow of Carthage? Yea and at what a high price, are the Latine workes of husbandrie written by *Columella*, *Varro*, and *Cato*, valued, which haue beene vouchsafed this honour as to be translated into French? What reckning haue the *Italians* and *Spaniards* alwaies made of workes concerning husbandrie? All this ought to giue vs sure and vndoubted knowledge and perceiuerance, that the skill of husbandrie, is one of the most necessarie, profitable, and acceptable things in the world, as well in the vse and practise of it: as also for the contemplation, writings, and treatises extant touching the same. This is that Science, to the practise whereof though I be not yet called, notwithstanding the pleasantnesse and excellencie of the contemplation thereof hath so farre possessed and carried me away, by reason of the affinitie which it hath with that condition, which I make my profession, as that these yeeres past, I haue brought to light and published a certaine French treatise, called the country house, which to speak the truth, is not altogether of mine own doing, but in part the inuention and first draught of the deceased M. *Charles Stevens*: and yet so much reformed for order, and augmented and increased for quantitie by my labour in euerie edition which I haue reuiewed and augmented euerie yeere for the space of these eighteene yeeres, and that so carefully and with such diligent and curious examination, as that I haue made it (as it were) altogether new. Yea I dare boldly affirme that more then three of the best and grea-

test

teſt parts thereof are mine. But as a man can neuer be weary with looking vpon, handling or fingering of the thing which he loueth, but rather ſeeketh how he may more and more beautifie and amend it, if it haue any fault: euen ſo, aſſuredly I could not poſſibly containe my ſelfe after theſe editions ſo oft, and euery yeere reiterated from beſtowing ſome howres ſtollen from my priuate ſtudies and publicke leaſure, againe to ouerlooke my former worke, not ſo much in good ſooth to adde any greater weight of praiſe vnto my ſelfe in that behalfe, which I make leſſe account of then of the publicke weale, as to ſatisfie the expectations, not onely of mine owne countrey men, but alſo of other nations, which by tranſlating of this my worke into their naturall language according to the ſeuerall augmentations of the ſame, may ſeeme to make great account of this my French countrey Farme. And heereupon it is come to paſſe, that all this yeere I haue ſo carefully trimmed, ſo throughly examined from the groundworke to the vene top, and ſtone after ſtone, this our countrey Farme, as that I haue in a manner made it all new, that is to ſaie, a great deale more coſtly and more commodiouſly built then afore, and beautified with manie moe inward roomes, ſecrets, and parcels, which before it wanted, in ſo much as that me thinkes I haue at this time furniſhed it in all ſuch perfect, beautifull, and rich manner, as any man can poſſiblie deſire. And now my L. this my countrey houſe crauing and earneſtly deſiring that it would pleaſe you to continue the happie and fauourable ſupport which it hath receiued heeretofore from your highneſſe: doth proſtrate it ſelfe at your feete, and beſeecheth you to be that guid and loadſtar vnto it, as vnder the influence whereof it (thus repaired anew and garniſhed with many rich iewels) may dare to ſhew it ſelfe openly, vnderpropped with the ſhadow and brightnes of your heroicall vertues and other rare perfections wherewith you become gratious, and the leaſt whereof deſerueth to be eternized by writing that neuer ſhould periſh: ſo you ſhall infinitely binde the maſter-workeman thereof vnto your H. and further augment his heartie affection and humble deuotion, who altogither voweth himſelfe to do you ſeruice all the daies of his life.

My L. God long maintaine and preſerue you in health and proſperitie, and vouchſafe alſo to giue to my yoong L. the Earle of *Cruſoll* your ſonne ſo long and happie a life as he deſireth. From *Paris* in the moneth of October, 1582.

Your more then moſt humble and obe-

dient Phyſitian and ſeruant,

IO. LIEBAVLT.

The Lord of Chaſtellus to Maſter *John Liebault Doctour in Phyſicke.*

CHARLES STEVENS of this champion houſe,
As founder firſt it built,
In part: but erſt he could it end,
Sharpe, ſudden death him ſpilt.

To thee, then LIEBAVLT ſonne in law,
To famous, skilfull STEVEN:
And follower of Phyſicks art,
To be, by practiſe giuen:

Is due the praiſe of ſecond birth
To halfe borne fruit, extended
So that by him, what was begunne,
By thee is fully ended.

Ended I ſay, for though that he
Some cunning skill heere ſhewed:
Yet low and lame, he left the ſame,
And thou haſt all beſtowed.

M. Io. of Mayerne surnamed Turquet, *Physician to Mounsieur Liebault.*

FOundation of this Countrey house
So beautifull, was layd
And parts aloft eke reard so high
As could, while STEVEN stayd

Aliue, but death, disdainfull death
(O death what wrong thou didst)
Him caught and kild before that he
Attained to the midst.

So that the worke which promised
A building fully finisht,
Enlarged with goodly galleries
And pillars of the finest,

Imperfect stayed and vnatchieu'd,
If learned LIEBAVLT
Had not repair'd in better sort,
And mended all the fault.

For putting to his helping hand,
And quintessence of skill,
With plants and fishes, birds and chase,
The void roomes he did fill.

And

And many other myſteries,
So worthy commendation:
As that who ſeeks to adde thereto,
Can ſcarſe ſcape reprehenſion.

The ſame vnto a certaine *backbiter.*

IF ſcolding ZOILVS I thee call,
I vouch nought but a troth.
And if thou ſhouldſt the ſame gainſay,
Thou ſhouldſt but ſome out froth.

For all men know, ſee, and affirme
The miſchiefe of thy toong:
Thy pride, and thirſting after praiſe,
Thy maners mixt among.

The chaſed Hart, the hunting dogs
Gainſt hard ſtiffe ſtanding trees,
Doth not cruſh, till he hardly preſt,
Grow waſpiſh like the Bees.

The wilde boare apt to teare in two
And kill, enrag'd by chaſe,
Without the ſame doth ſpare to ſome
Or ſhew an angry face.

But thou worſe than theſe ſauage beaſts
To hatefull glory bent:
To hurt LIEBAVLT in hiſtorie,
Thy pen and inke haſt ſpent.

But wotſt thou what they ſay abroad?
Thy booke thy ſelfe deciphers:
And wiſh thy head a Friers hood,
For bayes due to good writers.

The ſame vnto a certaine *Printer.*

CElestiall fire who boldly ſtole,
In fine the gods did puniſh:
Then Countrey houſe purloine not thou,
Leſt whipt like aſſe thou languiſh.

Io.

Io. Liebavlt, *to the Reader,* health.

I Had not purposed (friendly Reader) to reperuse or amplifie this my Countrey Farme any more, in respect of the editions already so oft by me augmented, within these eighteene yeeres, during which they haue beene printed in all countries. Notwithstanding, many occasions haue made me to alter my purpose. The one whereof is for that the time doth continually bring some new thing, and that the spirits of the men of this age are so fine and subtile, and so full of inuention, that not many things which haue beene liked of heeretofore can content them, for either they do quite alter & change the things, or els the meanes of doing, for those which are better, more appropriate, and more beautifull than those of former time. This may easily be found out to be true in casting of beds, banks, quarters, and other gardening works vsed heere in France, which are without comparison better fashioned, and filled with more beautifull and pleasant proportions, than those of olde time: the maner also of grafting of all sorts of trees and little plants, which is practised now a dayes, is a great deale more easie and handsome than that of olde time. Another, because that other countrey men which within this two yeere haue translated into their owne language this our worke, may seeme vnsatisfied with our former augmentations, hauing foisted into their translations some things of their owne braine, being ready (as it may seeme) by this their fact to accuse our worke of a maime, and my selfe as no such industrious and diligent searcher for things necessarie, as I might and ought: but the trueth is, that their additions and supplement is so sleight, and so farre from the purpose, that euery one of sound iudgement will say, that they had rather a desire to fill paper, than to inrich the worke: and assuredly I do not in any thing finde my selfe reasonably dealt withall and censured by them. And withall (howsoeuer I know that they haue bestowed no slender portion of honour vpon my booke in turning it into their owne language) I would haue them to vnderstand, that neither for dexteritie of inuention, nor maner of deliuerie, I will euer giue place vnto them in any thing whatsoeuer. The third occasion is for that diuers Printers pricked

for ward rather for their profit, than for my credit, haue vndertooke to print my worke vnder a ſuppoſed name, deuiſed by the Printer and the towne (as the party which hath ſent word of the ſame from Luneuille by Iohn Curtois *can teſtifie) in which reſpect I find not my ſelfe diſpleaſed, ſaue only in regard of the wrong they offer to my Printer, as alſo of the diſgrace which I my ſelfe ſuſtaine by their worke, by reaſon they haue done it in an ill fauoured letter, very bad paper, and ſo ſlender corrections to the preſſe, as that hereby my booke will looſe in a ſmall time, the good account that it had got in all Europe for the ſpace of eighteene yeres. And thus much for the three principall cauſes moouing me to reperuſe my booke, and to beſtow therein ſome houres defalked from my other affaires. By the which I haue for this time inlarged it with many precepts and inſtructions concerning the motions of times: the diſeaſes of husbandmen, the feeding, handling and guiding of all ſorts of beaſts: many draughts to make compartments and proportions in caſting of quarters and other works of gardening: many new wayes of grafting all ſorts of fruits: a more ample maner to make ciders and drinks of apples: the nature and qualitie of wine in generall, and in particular of ſuch as grow in France: the nature, maner of taking, and keeping of birds that ſing melodiouſly. I haue yet many other matters to take paines in, as being the ſubiect of my vndertaken worke, and thoſe ſo abundant and plentifull, and ſo full of conſideration, as that my pen was not able to deliuer it: but in the meane while (friendly Reader) I would haue thee to reſt ſatisfied with the gaines of this voiage, with hope that in time I ſhall put thereto that which is remaining, eſpecially if I perceiue that this my already beſtowed labour is welcome & acceptable vnto thee: and then alſo I intend to put it foorth in Latine, that other nations may not need to take the paines of tranſlating it into their natiue language. Expecting therefore and waiting for that which is behinde, take in modeſt ſort and good part this my labour, and excuſe me by reaſon of my other affaires employing me in a higher vocation, if thou fnde any thing either ſet downe by the halfes, or wholly omitted, or elſe not well poliſhed in this my Countrey Farme.*

Farewell.

A Caueat or lesson of instruction vnto the Reader,

by F. ANTH. LANGVIER, C.C. *Doctor of* Diuinitie of Ries, wishing health and *saluation vnto him.*

THe husbandmans profession (friendlie Reader) is principallie occupied about two things, that is to say, the tilling of the grounde, and the keeping of beasts: the tilling of the ground for the producing and bringing forth of nourishment; and the keeping of beasts to furnish vs with flesh, butter, wooll, hides, and other things necessarie for the vse of man. The riches of husbandrie (saith *Hesiodus*) is the abundance of beasts. For this cause *Homer* made *Pluto* to be the sonne of *Ceres* and *Iason*. The husbandmans life in truth hath alwaies beene accompted and esteemed as the most harmles of all others: which was the cause why the great Lord and Creator assigned (before the fall of mankinde) this pleasant countrie life and habitation vnto our first parents, which was called Eden: Which is as much to saie, as a place of pleasure (saith Saint *Bernard*) repleni- *In his first serm. vpon All saints.*
shed with all sorts of plants, trees, and shrubs, as also a fountaine of cleere water. This surpassing garden (after the opinion of manie) was situate vnder the Equinoctiall line, in some temperate place: as others saie, in the East without the region of the two Tropicks *Capricorne* and *Cancer*: or else out of this worlde, and of all troublesomnesse of the aire: not admitting that during the time of mans integritie, there was any pollution in the aire, or any excessiue qualitie of colde or heate, but that it was altogether pleasant and well agreeing with the nature of man. Some men are of minde that this garden was a portion of east Asia, and that afterwarde it was destroied by the floude, in such sort, as that there shoulde not remaine the least print or note of the knowledge of the same, which in my iudgement is the soundest opinion; for otherwise it woulde in these our daies be founde out, knowne, and frequented through the painfull pilgrimages of many, as well by sea as by lande. *Adam* our first father was placed in a champion grounde, after he was created and fashioned of the earth of the fielde of Damascus, to serue his Creator, and to the end that all his actions might redound to the glorie of his soueraigne Lorde; not to toile in it with paine and griefe, which shortly after were laide vpon him and his posteritie. This is the reason why the olde writers haue cald the husbandmans trade, the life of libertie and innocencie: whereunto also they (as well the Grecians as Latines) haue composed their Bucolicke songs, framed of a more plaine and simple verse then any other peece of Poetrie whatsoeuer, which thing they

they neuer did in any other ſtate or condition of life. For in truth among all other artes which reſpect either the profite or ſound health of man, husbandrie is the chiefe: by reaſon that, beſides it affoordeth and miniſtreth nouriſhment, it alſo hath a kinde of continuall trade with the earth, the common nurſe of all men, ſtrengthning and maintaining the powers of our bodies, and cauſing vs to liue more healthfully, and a longer time. For this reaſon *Heſiodus* recommendeth his workes of husbandrie vnto his onely brother *Perſius*, promiſing him thereby aduancement, not onely in wealth, but alſo in credite and eſtimation.

Booke 29. ch. 12.

I doe not intend to ſpeake of ordinarie husbandmen, the fonde and ignorant ſort, ſuch as *Aulus Gellius* ſaith, that the Thracian was which deſtroied and rooted out his vine: but of renowned men which haue loued and cauſed to floriſh the life and exerciſes of the countrie houſe: as *Ozyris* which founde out the worke of tranſplanting, husbanding, and gathering of the fruite of the vine in Egypt: or as *Iſis*, who was deemed to haue deſerued great honour for hauing learned to ſowe & reape corne, as *Diodorus Siculus* maketh mention. There is no man but he may gather in what felicitie & peaceablenes men liued from the beginning of the world, vntill the time that *Cain* built that great citie in Libanus, which he called after the name of his ſon *Enoch*, and in which the citizens defiling that golden age, prouoked God through their filthie and wanton liues, euen wholie to deſtroy all by the floud of waters. But *Noe*, otherwiſe called *Ianus* or *Ogyges*, being more wiſe and better aduiſed, and contenting himſelfe with a countrie farme (as many moe of the Patriarchs alſo did) being ſix hundred yeeres olde, in the end, euen in the yeere of the world a thouſand, ſixe hundred, fiftie and ſixe, entred into his arke: wherein hauing liued a yeere and ten daies, he was ſaued with his familie, and came foorth vpon the mountaines of Armenia or Caſpia, which are in Scythia by the riuer Araxes, as *Beroſus* the Chaldean, *Ierome* the Egyptian, and *Maſeas Phœnix* of Damaſcus doe holde and deliuer: who affirme that two hundred and fiftie yeeres (or neere thereabout) before Niniue, the floud came, and that *Noe* being gone out of the arke, liued in a golden age: that is to ſay, then when as yet euery one was a husbandman, giuen altogether to labour the earth, liuing without anie compulſiue law, and that, all the while, till *Ninus* and *Semiramis* had corrupted this precious golden world, exerciſing militarie weapons in ſteede of the tooles of husbandrie. The thing was alſo obſerued by many Latine writers, as *Trogus Pompeius*, *Iuſtine* his abridger, and *Cato*: who earneſtly longing after, and deſiring againe the ſaid golden time of two hundred and fiftie yeeres, bewailed the tyrannie which was brought in by *Ninus*. This ſame thing is yet further confirmed by *Beroſus*, writing that *Noe* with his familie comming out of the

arke

arke vpon the top of the mount Cordicus, descended into the plaine at the foote of the mountaine filled with dead bodies (which is called *Miri Adam*, which is as much as the place of bowelled men) in which *Noe* erected a pillar and ingraued this discourse thereupon: and vpon this occasion euer after that time it was called the place of *Noe* his comming foorth of the arke, and was inhabited by him and his familie, repeopling the worlde in such fruitefull manner and aboundant store (saith *Diodorus Siculus*) as that *Ninus* in *Noe* his life time was able and did leuie an armie of seuenteene hundred thousande footemen, two hundred thousand horsemen, besides other ten thousand and sixe hundred chariots, or thereabouts. Much to the same purpose *Berosus* writeth, that for the space of one hundred yeeres, these husbandmen did increase so aboundantly, that *Noe* one hundred yeeres after the floud (euen then when *Phalech* was borne) was constrained to send *Sem* into Asia, *Cham* into Egypt and Afrike, and *Iaphet* (whom men call *Atlas Maurus*, because he died in Mauritania) into Europe: all of them to performe the dutie of husbanding of the earth, their naturall nurse; and to sustaine those their great multitudes of people, which Scythia coulde no longer containe. Moreouer, (to speake the truth) the plentifulnesse and number of such as haue ledde the husbandmans life, and exercised husbandrie, hath beene alwaies greater, and their workes more excellent then any others whatsoeuer. This is the cause why *Marcus Terentius Varro* complained of and founde fault with the Romaines for hauing cast off the countrie life, and betaken themselues to liue at Rome in idlenesse. *Cicero* confirmeth the same thing in his Offices, giuing them to wit, that there was no life or manner of liuing more free, and more woorthie a vertuous man, then the husbandmans life. And for this cause it is that many famous & learned men haue written thereof. The first amongst the Latines was *Marcus Cato* the Censor; and after him the two *Sarsenne*, as well the father as the sonne: after them *Tremelius Scropha*, who hath written with greater commendation then the other. In like manner *Marcus Terentius Varro*, *Celsus Cornelius*, *Iulius Atticus*, *Iulius Gracinus*, *Lucicus Moderatus*, *Columella* and others. The Romaines also caused twentie volumes of *Mahone* the Carthaginian his husbandrie to bee translated for the benefite of their common wealth. But thou must vnderstand (curteous Reader) that all these their workes were but sleight and short little workes, in respect of the valew and greatnesse of this present countrie farme, framed by the great Doctor *Monsieur Liebault*, not without his great pains and costs, which now againe is offered vnto thee a newe, and in a more ample and better corrected edition, then any that hath beene set foorth hitherto. Besides the Latine booke (intituled *Thesaurus sanitatis paratu facilis*) which he hath put foorth within these fewe daies, for the common

benefite

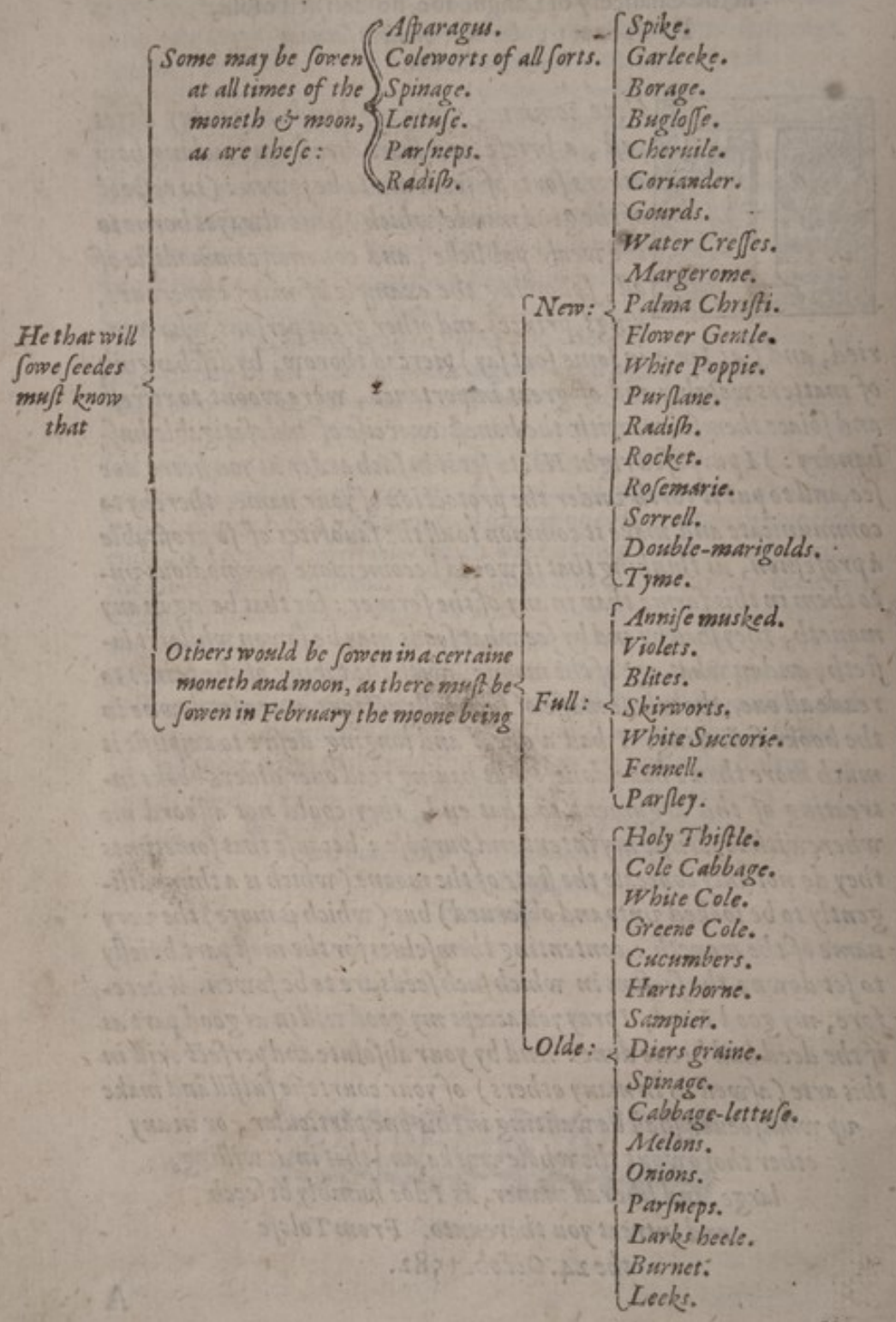
benefite and good of all, by which not onely our native countrie of Fraunce, but all other nations, as Flanders, and Germanie which haue turned this treatise of the Countrie farme into their owne language, are, and euer shall be beholden and indebted vnto him: if (at the least) they will not be reproched of ingratitude by the Phrygians and Athenians, who contented not themselues with the carying of a honorable regard towards such famous men as had beene authors and inuentors of husbandrie: but withall prouided and established by their lawes, as a priuiledge and dignitie bestowed vpon the verie oxe which treadeth out the corne, that who so shoulde slaughter any of them should be put to a cruell death: for thus *Elianus* writeth of them. Being nothing else but that which *Lysander* the Lacedemonian (being come to visite *Cyrus* the yoong king of Persia, and beholding the manner of the ordering of his garden, and being answered by *Cyrus* when he had asked who was the author of it, that no other but himselfe) vttered in his replie saying: O *Cyrus* it is not without cause that men doe speake so much good of thee. And *Alexander* the great (saith *Baptista Fulgosius*) to the end he might not be condemned of ingratitude, as also to leaue behinde him a president to al succeding princes vnto the worlds ende, did reward *Abertonius* which was but his garden waterer, with the kingdome of Sidonia. And I hope also that not onely ecclesiasticall persons together with the prince, but also all other estates of the worlde, (after the example of *Anachorites* the Grecian, and *Hermites* the Egyptian) will holde out the fauourable finger of protection towardes the author thereof, will wish him all happinesse and felicitie, and earnestly desire that he may liue long for the weale publicke, and to the end that being as yet but in the flowre of his youth, we may receiue manie other works from him, repleniſhed with his rare knowledge, and perfected by his earnest endeuour and diligence.

Farewell.

To the right Honourable Mounſieur de PIRA,
Counſellour, and Secretarie to the King, and aſſiſtant
in the Chancery of Languedoc, holden at Toloſa,
P. AIRALL *his moſt humble ſeruant*
wiſheth all health.

THere comming vnto my hands not many dayes paſt, a briefe and ſhort direction teaching how diuers ſorts of ſeeds are to be ſowen: (in reſpect of the good minde which I haue alwayes borne to the weale publicke, and common commoditie of all, following the example of many emperours, kings, princes, and other great perſons, who wearied, and (as I may in ſome ſort ſay) pierced thorow, by diſcharging of matters weighty and of great importance, were woont to refreſh and ſolace themſelues with the honeſt exerciſe of indefatigable huſbandry:) I purpoſed right Ho. to ſet it in ſuch order as you heere doe ſee, and to put it forth vnder the protection of your name, thereby to communicate and make it common to all the fauorites of ſo profitable a profeſſion, as thinking that it would become more commodious vnto them in this forme than in any of the former: for that being in any moneth, they ſhall by and by ſee what ſeeds may be ſowen whiles it laſteth, and in what age of the moone, with the taking of the paines to reade all ouer the whole maſſe of ſuch inſtructions as are ſet downe in the booke following. I had a great and longing deſire to amplifie it much more than I haue done: but hauing read ouer diuers books intreating of this argument to that end, they could not affoord me wherewith to ſatisfie my intent and purpoſe: becauſe that ſometimes they do not only conceale the ſtate of the moone (which is a thing diligently to be looked vnto and obſerued) but (which is more) the very name of the moneth: contenting themſelues for the moſt part briefly to ſet downe the ſeaſons in which ſuch ſeeds are to be ſowen. Wherefore, my good Lord, I pray you accept my good will in as good part as if the deed had beene done: And by your abſolute and perfect skill in this arte (aſwell as in many others) of your courteſie fulfill and make vp whatſoeuer ſhall be wanting in this one particular, or in any other thorowout the whole worke, and that in as willing, large, and liberall maner, as I doe humbly beſeech and intreat you thereunto. From Toloſe the 24. Octob. 1582.

A TABLE TO KNOW THE BEST TIME when to sowe diuers sorts of seeds.



You

You must sowe in March the moone being

New:
- Garlecke.
- Borage.
- Bugloſſe.
- Cheruile.
- Coriander.
- Gourds.
- Margerome.
- White Poppie.
- Purſlane.
- Radiſh.
- Sorrell.
- Double Marigolds.
- Tyme.
- Violets.

Full:
- Muſked Anniſe.
- Blites.
- Skirwoorts.
- Succoris.
- Fennell.
- Apples of loue.
- Marueilous Apples.
- Artichokes.
- Baſill.
- Thiſtles.
- Bleſſed Thiſtle.
- Cole Cabbage.
- White Cole.
- Greene Cole.
- Curons.
- Cucumbers.
- Harts horne.

Olde:
- Sampier.
- Diers graine.
- Spinage.
- Gilliflowers.
- Hyſſope.
- Cabbage-lettuſe.
- Melons.
- Muguets.
- Onions.
- Flower Gentile.
- Burnet.
- Leeks.
- Sauorie.

In May, in the old of the moone: Bleſſed thiſtle.

In Iune, the moon being
- New: Gourds. Radiſhes.
- Olde: Cucumbers. Melons. Parſneps.

In Iulie, the moon being
- Full: White Succorie.
- Old: Cabbage-lettuſe.

In Auguſt, the moone being full: White ſuccorie.

Herbes growing of ſeedes that are ſowen may be tranſplanted at all times (except Cheruile, Arrage, Spinage and Parſley, which are nothing worth when they are tranſplanted) euer obſerued that ſuch tranſplantation be in a moiſt or ramie weather: for otherwiſe you muſt looke to them to water them.

Vnderſtand and know that the choiſe and age of ſeeds is double, for after you haue choſen them, ripe, full, heauy, corpulent, groſſe, of a good colour, & not falling to powder through rottenneſſe or bruiſednes,
- Some doe growe better of new ſeedes, as Leekes and Cucumbers.
- Other-ſome do grow better of olde ſeedes, as
  - Coriander.
  - Parſley.
  - Sauorie.
  - Beets.
  - Origanum.
  - Creſſes.
  - Spinach.
  - Poppie.

Knowe further that you muſt preſerue from the colde
- Lettuſes,
- Artichokes,
- Baſill,
- Thiſtles,
- Cabage Cole,
- Diers graine,
- Melons.

fifteene dayes after they put foorth of the earth.

Know that ſeeds doe thriue and proſper a great deale better when they are ſowen vpon ſuch dayes as are but warme, and not very hot or colde, than in hot, colde or dry dayes.

You

You must sowe in Aprill, the moone being

- New: Marierome. Flower Gentle. Thyme. Violets.
- Full: Apples of loue. Marueilous Apples.
- Olde: Artichokes. Thistles. Cabbage Cole. Citrons. Harts horne. Sampire. Gilliflowers. Muguets. Parsneps.

Note that seeds must be

- Gathered in: Faire weather. The wane of the moone.
- Kept,
  - Some in: Boxes of wood. Bags of leather. Vessels of earth. — And after to be well cleansed & dried in the sun or shadow.
  - Other-som, as: Onions, Chibbols, Leekes — In their husks.

Note that it doth well to

- Plant in the last
- Gather grifles in the last but one
- Grift two dayes after the change

Of the moone.

Note that they which are growen vp to the knowlege of the planets & signes may exactly obserue the aspects of the moon vnto the rest of the planets, & how long it abideth in any of them, for she

- aspecting
  - ♄ by a △ or ✶ in the signe ♉ ♌ ♍ ♎ ♐ ♒ — it is good to:
    - Plant vines.
    - Sowe all things generally.
    - Sowe the fields generally.
    - Sowe gardens.
    - Sowe euery where and all things generally.
    - Plant trees and vines.
  - ♂ or ♆ by a △ ✶ or □ in the signe ♒ maketh it good to plant and set — trees and vines.
- being in the

degree	minuts of	
7	15	♈
1	57	♉
28	40	♊
7	15	♋
15	49	♌
28	40	♌
11	31	♍
24	3	♍
7	14	♎
28	40	♏
11	32	♐
7	15	♑

Astrologians command vs to sowe and plant, because of a well tempered state and condition in them.

THE

THE FIRST BOOKE OF THE COVNTRIE FARME.

The first Chapter.

What manner of husbandrie is intreated of in the discourse following.

EVen as the manner of building vsed at this day, for the couering and rest of men, is not like vnto that of old time: so wee see the manner of the labouring of the earth for the nourishment and sustenance of the same, to differ greatly, according to the Countries, soile, groundes, and situation of the places wherein they are seated: yea there is not so much as their language, apparell or household-stuffe and working tooles, but they chaunge after the fashions of countries, which notwithstanding do not hinder but that in euerie thing we may be as well fitted as they which went before vs. By this we may see our late kinde of husbandrie to attaine and bring with it the like issue and effects, which that of the Auncients did, which is nothing else but to liue of the encrease of the earth well husbanded and tilled by vs.

The variety of countries causeth a diuers manner of labouring of the earth.

Wherefore I haue thought it impertinent and vnseemely to tie my selfe to the seuerall sorts of labour vsed of men in times past, and that because that countries inhabited by diuers sorts of people, haue according to the seuerall variety of them, euerie one affoorded many particular and seuerall sorts of liuing; as also for that it hath alwaies beene the custome of men (to the end they might the more easily fit and apply themselues to the good liking of others) to compose and frame themselues according to the maners of the Countrie, without affecting either by the reading of old writers, or their owne ouer reaching curiosity (the ruine & ouerthrow of all good wits) so many new inuented fashions of building, tilling, speaking or writing: seeing, that by such meanes in seeming to reforme things without the perfect knowledge of them, men haue beene brought oftentimes vtterlie to spill, spoile, and marre the same. And therefore I would not haue you to maruell if the frame and toile vsed about our French Countrie Farme, be not altogether like to that of former and auncient daies: for it is my purpose (following the Prouerbe, which saith that we must learne the maners of our auncient predecessours, and practise accor-

Ouermuch curiosity the ruine of good wits.

What maner of husbandry is entreated of in that which followeth.

ding to the present age (to lay out vnto you the waies, so to dwell vpon, order, and maintain a farme, meese, or inheritance in the fields, (name it as you please) as that it may keepe and maintaine with the profit and increase thereof, a painful and skilfull husbandman and all his family: whereupon it commeth to passe that the countrie inhabitants do call it at this day, the onely or principall and greatest gaine that is: because no other thing bringeth more gaine vnto the master thereof then the earth, if it be well husbanded and reasonably maintained.

The name of the countrie house is a farme, meese, or field inheritance.

The second Chapter.

A briefe shew of that which shall more largely be described in that which followeth.

The Summe of the first Booke

THE better to helpe the memorie, and as it were by the way of pointing out of our French husbandrie, I will propound and set before you a chāpion place seated in such a coast or corner as you may finde, not as you could chuse, and there we will prepare without extraordinarie costs or charges, a house with all such appurtinances (or verie neere such) as are fit and requisite for our time: as good *Cato* hath drawne and described for his, in that treatise of husbandrie set downe by him for the common wealth of the Romans. And in the same place we will intreate of the state and duetie of the farmer, his wife, his people, cattell, flying fowles, and such other things.

The Summe of the second Booke

At the one side of this house, euen iust in the place whereupon the sunne riseth, and in one part thereof we will place the houshold garden which neere vnto the borders of his quicke set hedge shall containe a frame of railes in forme of an Arbor for vines to runne vpon for the furnishing of our houshold store with Veriuce, and other necessarie hearbs for the house: and we shall not altogether neglect or forget to prouide and plant in the same place herbes fit for medicine. And yet furthermore in this gardē also you shall plant things to make your profit vpon, as Saffron, Teazill, Woade, red Madder, Hempe, and Flaxe, if it seeme not better to reserue this part of husbandrie for fieldes that are full of fennes or wateriſh places. In the other part we shall make a garden for flowers and sweete smels, with his ornaments and quarters, garnished with many strange trees. About the hedge we shall set for to make pottage withall, pease, beanes, and other sortes of pulse: as also Melons, Citrons, Cucumbers, Artichokes, and such like: in which place we shall intreat of Bees.

The Summe of the third Booke.

Next to our gardens we must dresse some well defenced piece of ground or green plot for fruits, and there place our nurcerie for kernels and seedes, and there plant such stocks as whereon we intend to graft. After or next hereto our square of olde growne trees and such

as

as haue beene transplanted, taken vp and remooued; and together with these things we will write of silke wormes, & prescribe the waies to distill waters and oyles as also to make Cydres.

Next in order to our foresaid greenplot lying neere some one or other little brooke, we are to lay our medow grounds or pastures for feeding, compassed about with Osier, Elme, Aller-tree, and Withie; and by the borders of such hedge we wil prouide some poole of standing water or running spring; and next in order to these the great and large medowes for the prouision and reuenues of the Lord. *The Summe of the fourth Booke.*

Betwixt the South and the North we will appoint and set downe corn grounds, and teach how to measure them, and describe their fashion and manner of tilling: in which place we will speake of making and baking of bread; and ouer and aboue the moitie or halfe part of a hanging thing, and the moitie of a but or little hill. *The Summe of the fift Booke.*

In the place which is neerest vnto the South we will plant the vine, and withall declare the ordering of the same: we will speake of vintage, and the making of common and medicinable wines. And thereto we will adde the diuers sorts of wines which growe in our countrie of Fraunce. *The Summe of the fift Booke.*

Betwixt the North and the East we will place our warren, either vpon some hill or in some other place fit to hunt in, and in the higher grounds we will plant small wood and great timber-trees, not forgetting in the meane time any thing which may appertaine to the ordering and gouerning of wood, or concerning carpentrie. We will also make mention of parkes for wilde beasts, of the hunting of them, but that in a fewe wordes (for there is no neede that a good housholder should trouble his braine with much hunting) and of the breeding of herons. Finally, we will briefly describe the order and manner of taking of birdes. So that after all these things there shall not much remaine further to be added hereunto, either concerning the pleasure or profit of a countrie farme, especially such a one as a man ought to desire, which would liue carefully and within the compasse of reason, vpon the labouring of his land. *The Summe of the seuenth Booke.*

The third Chapter.

What things are requisite before we goe in hande with building of this countrie farme.

AS concerning the proprietie of inheritance (whereof manie Authors both Greeke and Latine haue intreated so exactly and curiously) I do not at all intend to incomber my selfe therewith, supposing that this countrie farme and the land belonging vnto it, is either descended by succession, and that there is an intent to make it in such case, as may serue most commodiously to the ease

and good liking of the owner: or that (if you haue purchased and bought it with your money) you haue cleered it from all incombrances and claimes before you goe about the building and fitting of it in euerie point as you would haue it. For like as some say, that the first foundation of a good house must be the kitchin, that is to say, the reuenues and grounds thereto belonging for the maintenance of the same: euen so the first point and principall care of an housholder, before he build or trimme vp his house, is to bethinke himselfe how he may make the state intier and absolutely vnto himselfe, and so to haue nothing to doe with such as are vnder age, creditours, rentors, or others in superiour place, which may interrupt and command him from his intended purposes and necessarie affaires. He must also see that all such charges, rites, and customes as law doth require be fully answered, and by name that it be cleere of all former sales, bargaines, and statutes, which is the safest manner of purchasing in these daies: for there are found a farre greater number of foolish buyers then of foolish sellers. Let there be past a yeare and a day before he make any exchange, raising and mooving of new debts, for the cleering of his inheritance, and let him not lay out to the value of a penie, before he haue fully ended all things, measured and bounded his grounds from his neighbours, and assured his peace euen against the most waiward and troublesome. To be short, let him be free from all manner of courts and sutes: and if it cannot be otherwise but that one or other controuersie do still hang vpon him (seeing (as some men say) that lands doe vnauoidably inferre and bring with them strife in the law) yet let it be of such nature as that he may be plaintife rather then defendant: I meane in respect of duties to be performed to the chiefe Lord and other imposition by the Prince, in discharging whereof euen to the vttermost penie, capon, or whatsoeuer else it be, he ought to be no lesse carefull and diligent, then in mending one tyle in the roofe of his house, which in course of time being left vnrepaired and vnput in againe, causeth others also to fall, and so causeth great annoiance to the lodgings vnderneath.

The kitchin must be the first piece of building in a good house.

Purchase by statute, the surest of all others.

That there be more foolish buyers, than sellers.

That land leadeth strife in hand.

The fourth Chapter.

The seating and situating of the countrie farme, with other his appurtinances.

HOwsoeuer it be that euerie man in all things inquireth after his owne commodity, and straineth himselfe to come as neere to perfection and excellencie as possible he can, notwithstanding the well instructed & modest housholder contenteth himselfe with that whatsoeuer it be that commeth of the hand and grace of God, and accounteth for great bountifulnes and liberalitie such pittance,

tance, grounds, and ſeate as falleth vnto him, aſſuring himſelfe that choice and perpetuall fruition belong no more to him, then Empires and kingdomes vnto princes. Wherefore if the place wherein he was borne, which he enioyeth by right of ſucceſsion or purchaſe, be not naturally ſo fit and conuenient, as that he may thereby be drawne and allured with the loue of it: then he muſt endeuour ſo to fit it by his skill and endeuour, by his labour ſo carefully to amend and correct it, that it may be ſufficient for the maintaining of him and thoſe that belong vnto him, and the erecting and ſetting vp of an houſe. For hee ſhould not learne to luſt after or deſire any more (if the prouerbe be true) then a wheele-barrow for the firſt hundred yeeres, and a banner for the ſecond hundred yeeres.

Labour is requiſit in a houſholder.

That is to ſay, that euery thing hauing attained his hight, doth in the end decreaſe.

If I ſhould heere go about but once to imagine ſuch a ſituation of a countrie houſe, as ſhould be ſo perfect and exquiſite, as that nothing ſhould be wanting therein, I might iuſtly ſeeme to my ſelfe to be voide of all reaſon. It is very true that if any ſuch place coulde be founde, where the aire, water, and earth did all affoord their beſt and moſt deſired fauours and qualities, it would much auaile and make for the purpoſe: but ſo it is, that neither emperours nor kings could euer attaine the skill to content themſelues otherwiſe then with the ſituation of their owne countries: ſome of them ſometimes being too hot, too cold, very ſubiect to corruption and putrefaction; other ſome leſſe profitable for the bringing foorth; and ſome againe of a meane and indifferent condition, and contrariwiſe. Notwithſtanding although the place be not ſo fertile as a man could wiſh; neither yet ſo comodious as that great husbandman *Cato* doth deſire it, yet it muſt be prouided & foreſeene aboue all other things that it haue the benefit of a good aire: for ſuppoſe that the grounds were very fruitfull and endued with all the beſt properties and qualities that a man could poſsibly wiſh to be in a champion ground; yet notwithſtanding if the aire be peſtilentiall and infectious, or not found, it ſhould argue nothing but great fooliſhnes in a man there to imploy his coſt & paines. For where a man is in continual danger of ſicknes or of death, not only the gathering of fruits, but alſo the life of the workman is continually hazarded: or rather which is more truely ſaid, death is there more certaine, then any profit. Wherefore (if it be poſsible) you muſt make choiſe of a place farre from mariſhes, farre from the ſea ſhore; and where as neither the Southren nor Northren windes doe ordinarily blow, and which lieth not altogither open to the South ſunne, nor yet vnto the North: but principally ſee that it be placed neere vnto ſome one or other good and honeſt neighbour, ſeeing it is an inſupportable thing to be daily haunted of a brawling and wicked neighbour: let it not be placed neere to holds or townes of garriſon, thereby to auoide the outrages of tyrannie and inrodes of ſouldiers: let it

That a full perfection of the ſituation of a countrie houſe can no where be found.

A good aire is a thing neceſſarily to be looked for, and procured to a countrie Farme.

Neere vnto a good neighbour.

Farre from places of garriſon.

Farre from riuers and brooke.

in like manner be farre from riuers and brookes which are subiect to ouerflow, and that in respect of the vnauoidable charges for therepairing of such ruines and spoile, as such ouerflowings do cause. And yet I could willingly wish and greatly desire, that it might not be farre off from some smooth and gentle streame, able to beare a ship, to the ende that victuals may with the lesse cost be transported thence to other places for your better commoditie sake, as also neere some great good towne, that so the things of readiest sale, may be sould for the best aduancemente and making of the most of the reuenues of the same. Although to wish to haue a farme in euerie point so perfect and well seated as that nothing should bee wanting vnto it, were (as hath beene saide) an vnreasonable thing: as it is also to expect or looke for grounds and fieldes so well conditioned, as a man could desire in a ground of speciall and principall praise and commendation. It is true that besides that necessitie doth beget skil, and prouoke and stirre vp men to take all possible paine, industrie and care: it doth also procure that there should not that discommoditie be found to offer it selfe, which shall not be recompenced and counteruailed either by one or other commoditie: as for example in hot places there are growen good wines & fruites of long continuance: in cold places great store of sweete waters, and sometimes sea water, which greatly increaseth their profit: in others for the most part, when the earth is barren in the vpper parte, it containeth some good things vnderneath, as it falleth in stone-pits, mines, & such other things, which make the change for the better. So then we are to hold our selues content with such estate and condition as the place shall affoord, where we must dwell and settle our habitation: and if it be not such as some curious man in his desire, or one that is hard to please, might require and looke for, then we shall straine our selues to mende it by the meanes set downe hereafter.

It behoueth vs to content our selues with that which God and nature affoordeth.

There are verie few farmes to be found so seated as that there is not some thing to be supplied, as want of water in high and ascending places, such as are the countries of *Beaux* and *Campaigne*, notwithstanding that their groundes there be strong as it happeneth in rising and mountainous places: too great store of water in falling grounds & long vallies, such as are to be found in some places of *Sauoy*, *Daulphine*, *Auuergne*, and *Gascoigne*, in which places there is more pasture then tillage: other quarters are giuen by nature to be sandie, as towards the towne of *Estamps*, *Saint Marturin de l' Archaut*, in *Solongue* and in the countrie of *Lands*, which notwithstanding cease not to be moist and wateriſh, other quarters are chalkie and clayie, as towards *Rheims*, *Troy*, and *Chalons* in *Campaigne*: othersome are stony, as towards *Saint Lou de Serans*, *Tonnerre*, *Vezelay* in *Daulphine*, and in the *Pirene* mountaines, where is to be found great store of excellent marble:

ble: and some are rockie, which are most fit for the countries abounding with vines. How soeuer the case stand, the building cannot happen in so inconuenient and strange a place, but that a man may make choise to take the best quarter for the sunneshine, as that which is most for the health and wholesomnes of the inhabitants, and apply it euery way for his vse and ease.

Rockie grounds good for the bearing of vines, and so for such countries as abound with vines.

If therefore a high and flatte place as *Beaux* or high *Fraunce* do want water, you must for a supply make pooles right ouer against your courts, and cesternes in your gardens: and as for your grounds you must draw furrowes therein in such sort, as that the earth cast vp by the way may retaine moisture a long time: and if the grounde prooue it selfe strong, you shall not neede to manure and dung it so oft, neither yet to let it lie fallow more then euery fourth yeare. If you cast pits, you must dig them of a conuenient widenes and length, that is to say, foure square: but somewhat more long then wide after the fashion of the pits *Aranques*, which are in vse in the gardens of *Prouence* and *Languedoc*, with their trough laid to the brinkes of the pits, to receiue such water as is drawne: but if the water be so lowe in the ground, that such kind of pits cannot be made, then there must pits be made to go with a wheele, and those so large as that at euerie draught you may draw vp halfe a pipe of water at the least, which you shall empty into particular troughes and keepe them for the vse of your people and cattell: but aboue all other things you must haue a speciall care to gather and keepe well all raine water, either in cestern or otherwise.

A high and flat country.
Pooles.
Cesternes.
Pits called Aranques.

The cesterne shall be set in such a place, as that it may receiue all that commeth from such spouts as are belonging to rooses or lower losts of the house. It must be firmely and closely paued with clay and mortar, and after drawne ouer and floored with the same mortar, to the ende that the water be not made muddy or tast of the earth: and if there happen any clift or chinke, you must stoppe it with cement made of cleane haire, tallow, vnquencht-lime, and yelkes of egges well beat and made into powder, and then all of them well mixed together. The throat or passage for the water out of it, shalbe such as that appointed for the pits or wels. Some cast into their cesternes eeles and other fresh water fish for to be fedde and kept there, to the ende that the water may become the lighter by reason of their mouing and stirring of it, & that so it may the more resemble the nature of running water; but indeed such water is nothing wholesome for men, as neither yet for beasts: it were farre better to straw with green herbes all the bottome of the said cesterne, and cast in little pebbles of the riuer vpon them, for by this meanes rather the water would be made better.

To make a Cesterne for to hold and keepe raine-water.

Moreouer for the discommoditie of wood, you shall make leane the

The way to prepare ground for the bearing of wood.

earth in certaine places nere vnto your lodging with grosse sand, fullers earth and ashes from of the earth: after that you shall either sow or set there such trees, as you shall thinke that may serue you; although in deed it were good to proue what kind of trees would best prosper there before you wholy sow or set it.

A countrie neare vnto riuers.

If your place extend and reach vnto some running streame, your medowes shall not be so farre off from it as your house, which to be too neare a neighbour vnto riuers, would be a cause of procuring rheumes, and the falling downe of some roomes: and yet it is not good to haue it too farr off, aswell in respect of watering of the cattel, as for the washing of bucks, skins, line and hemp, for the whiting of webs of cloth, if so be that you intend or purpose any such thing, for the grinding of your corne, as also (if onely the riuer neere vnto you be nauigable) to send that which you reape from your fieldes vnto the towne: but you must chuse the highest peece of ground to build your dwelling house vpon.

The pleasures of princes.

I leaue out the pleasures of Princes and great noble personages, who for their delight sake do dwell in sommer in watery places, excellently trimmed and beautified with waters and furnished with all delights: for our householder may not in any case charge himselfe with further costs, than this his state may wel beare: for princes haue wherewith they may be at their change and variety of lodgings, according to the changes and alterations of the seasons of the yeere, and to turne at their pleasure the square into the round, and contrariwise.

A drie countrey.

In a drie place as *Beaux* and *Champaigne*, and the mountainous countries, learne to set your building so well as that it may take the eastern Equinoctiall, and not loose the rising of the sun in March and October or rather in September.

A hill to build vpon.

If there be euer a hill, build vpon the edge thereof, making choise to haue your lights towards the East: but if you be in a cold countrie open your lights also on the South side, and little or nothing towards the North, if it be not in your barnes where you put your corne or such other things, as are subiect to the weasell and other vermine. Ouer against the North you shall procure some row or tuft of trees for to be a marke vnto you of your place, & defence also for the same against the northerne windes in the winter time. But if you be in a hote country you must set your said tuft of trees on the South side against such windes and heat of sun as come from thence, and boldlie open your lights especially in the said barnes which lie on the north-side.

Make good choice of the best partes of your grounds, to be most fit for fruits, corne and medowes, and plant your vineyard, to haue the South open vpon it. You shall make also certaine crosse barnes with their counter-windowes, in the place towards the South to open them

them in the time of a northen winde. Such places are found in countries full of mountaines, which do greatly desire the East: and yet notwithstanding would therewithall take parte of the South, which is so needfull for them.

In this and such like places welles are in greater request and much more necessary, then in valleis and plaine groundes, and that we may finde out the place where it is best to make them, we must chuse the easterne side, at the beginning of the descent, somewhat therewithall bending towards the North, but we may not haue anie thing to doe with the westerne side: and yet somewhat better toward the South, where hauing ouer night digged the earth in diuers places the quantity of three feete ouer and fiue in depth, and after returning in the morning at the sune rise, you must make triall how it soundeth being striken with the end of a holly staffe armed at the said end with some round peice of iron or latten, after the manner of the end of a shepheards staffe without the crooke: and there by the iudgement of the eare to obserue and marke how it soundeth vnderneath, as whether it sound like a mortar, or like fatt earth, potters clay, or som other that is very hard, or like a glasse halfe broken, or else like a verie deepe pit, that toucheth the quarrie or veine lying vnderneath: and this is the best way to iudge and make triall. Or otherwise in the moneth of August or September at such time as the earth is very drie, a little before the sunne rise, you must lie downe flat vpon the ground, hauing your face toward the East, and chuse out that place, where you shall espie a vapour to rise vp out of the earth after the manner of little cloudes, for this is a token of a proud (or plentifull store of) water. Or else to make a shorter triall, to make deepe trenches of fouer foote within the ground, and therein to put spooniges or fleeces of wooll verie drie & cleane, couering them with boughes of trees or leaues of hearbes, then after some time to take them out of the earth, and they being wet and moist, do argue aboundance of water, according to the qualitie of moisture which they haue within them: whereas if on the contrarie they be drie when they be taken vp, it argueth that there is no water to be come by. Diuers there be that gather figures of the springing vp of water in place where, by their seeing of small cloudes and vapoures, rising from thence into the aire, in drie, faire, and calme seasons. But howsoeuer, it is not conuenient to content ones selfe with the bare viewing of the hearbes which grow thereuppon, without hauing first made some triall, for vnder Crowfoot, Folefoot, Plantaine, Dogtooth, Cinquefoile, Milfoile & Threeleaued grasse, water is not far to seeke, but it is naught worth, if one digge not very deepe, as is to be seene, at *Bagnolet Belle-Ville* vppon the sande, and other places of Liury: vnder Veruaine is oftentimes found good water and deep, according to the nature of the ground, and withall if the head do spring

from

from grounds apt to boile, as red sand, or gray rocke, and not from those sides which by and by are dried vp. Aboue all, to the end we may haue welles containing water of a good relish, and such as will neuer drie vp, we must make choise of a sandy, blacke, grauelly or clayish ground, or such a one as is full of pebbles, and especially that which is mixed of pebbles and sand together, but neuer of that water which floweth from fullers clay, mire, mudde, or springeth from the grounds, where sallowes, roses, reeds, and other such plants which are ingendred of a watry humour do grow: for although that such places do yeeld great store of water, notwithstanding that water is naught worth, and will easily be dried vp. Wherefore as much as lieth in you procure that your wels be far off from such ditches as wherein they lay the dung of stables, cartell or swine-coates to rotte, or any other place which may annoy in regard of the pissing of beasts, if they be not well digged and made very deepe. True it is that wels will be a great deale the better if they consist of a high rising water, and not such a one as lieth deepe in the earth. For howsoeuer that such wels be lesse hote in winter and in summer lesse cold, yet notwithstanding it shalbe infinitely better because it hath more helpe of the sun and aire, which are the two things which do greatly amend and make better the water; and if necessity force the water to lie so deepe and low, we must seeke to helpe the inconuenience by drawing but a little and oft, for the inumbling and stirring of the water will rectifie it, and amongst other things you must haue speciall care not to keepe it couered.

Wels that neuer drie.

Wels of good water.

Fountaines in like maner rising from such places of mountaines, are had in request, aswell for the profit of the water, which is a great deale better and more pleasant than that drawne out of wels, as also for the beautifying of the country farme. And for to find their head or spring, we must vse the like meanes, as we haue laid downe for the finding of wels, excepted that we must make chiefe choise of such as breake forth vpon the North at the bottome of high and great mountaines, hauing hollow places, and compassed about with plains, for in such plaine grounds the water gathereth it selfe together and distilleth through the earth: now this kind of prouision of water is when you desire it in great aboundance: but if you stand vppon and desire the best and most excellent water, you must make choise of high places and such as are not ouershadowed, the fall whereof doth enioy the sun-rising, for water out of such fountaines is a great deale more light and pleasant in taste, and by how much it runneth the swifter and longer way in the aire, and sun before it come to the bottome, so much it groweth the better; as when it falleth from high rocks, it is as it were beaten and broken in falling through the downright places of stones, and craggednesse of the rocks. We must also see that such mountaines be full of Dogs-tooth, Plantaine, Fox-taile, wilde penny royall

Fountaines. To find out the heads of fountaines.

roiall, transmarine Sage, which is called Adianthum, Milfoile, Chameleon, and generally all other herbes and plants, which grow without being planted, and are by nature greene, well branched, good and thicke, and well flowred.

The best time to finde out spring-heads.

The time most apt in all the yeere, and affoording greatest perseuerance for the finding out of the heads of wels and fountaines, are the moneths of August or September: for then it is easie to knowe the greatnes of the head, when the earth by the great heat of Sommer hath no moisture of raine left remaining in it, and then also we may gather assurance of such as will neuer drie vp altogether.

Chanels or pipes to conuey fountaines along.

If it happen that the head fountaine be somewhat too farre from the farme, you may force the water to come thither by little riuers, or rather more conueniently by chanels and conduits made of lead, woode, or pot-earth: the best are made of aller tree, firre tree, or pine tree, out of which distilleth perrosen, bicause that such trees haue an oilie humor and hot, which easely resisteth the hurts which water might cause: next to them are those which are made of pot-earth, if that the water carried along in them were not the cause of breeding obstruction. These must be two fingers thicke, and sharpe at one end the length of halfe a foote, to goe the one of them into the other: the woorst sort is those made of lead, because the water carried along by them, purchaseth from the lead an euill qualitie, and that because of the ceruse thereof, so that it oftentimes causeth bloudie fluxes and other such like diseases, if we beleeue *Galen* and them which for this cause call the inhabitants of Paris, squirters, bicause they vse fountaine water, which runneth through leaden pipes: which point notwithstanding seemeth not to be without all doubt, seeing that ceruse cannot breed, nor be made of lead without vineger, & for that we see also diuers countries do drinke of such waters, without being troubled with bloudie fluxes: whatsoeuer it is, we must set well together and soulder the pipes with a compound made of vnquenched lime and the grease of a hogge, or of perrosen and the whites of egges, or of lyme, whites of egges, oile and the filings of iron, because that al these things do hinder corruptions and rottennes which the water might cause. If any mountaine do hinder the laying or bringing along of these pipes, we must make them waie: if any valley, we must reare arches, such as are to be seene in a village neere vnto Paris called *Arcueil*, and that because of those said arches; or raise pillars and other matter to support those water passages.

What waters are best.

But it is not sufficient to haue found out those heads of wels and fountaines, but we must further consider of the goodnes and wholesomnes of the water, as *Aristotle* teacheth vs: For seeing the greatest part of our life dependeth vpon the vse of this element, it is requisite that the master of the houseshold should haue care to procure good

water

water, in asmuch as water must be the most of his seruants drinke, and that the bread which he and his family do eate is kneaded therewith, and the greatest part of his vittailes boiled therein. The best and most wholesome water of all others is raine water falling in sommer, when it thundreth and lightneth very much; and yet notwithstanding raine water causeth costiuenes and obstructions, especially that which is kept in cesterns newly made, and that by reason of their mortar wherewith they are ouerlaid: it doth also corrupt very quicklie (that onely excepted which falleth in Maie) and being so corrupted it marreth the voice, bringing hoarsenes and a little cough: next to this in goodnes is the fountaine water which falleth from the mountaines, and runneth along amongst stones and rocks: next to this in goodnes is well water, or that which issueth at the hanging parts of the mountaines, or that which springeth in the bottome of a valley: the fourth different sort of waters is that of the riuer: the worst of all the rest is that of the poole & marrish grounds, & yet that which runneth not is worse then all the rest and more apt to infect. The water of snowe and ice is the most vnwholesome of all, because it is the coldest and most earthie, as not hauing beene prepared by the heate and vertue of the sunne. And as concerning the water of wels and fountaines (seeing it is not found good alwaies and in all places) we shall knowe them to bee good, if it haue neither taste, smell, nor any colour whatsoeuer, being notwithstanding very cleare, and of the nature of the aire, taking quickly the colour of any thing that one shall cast into it, being also cleane, warme in winter, and colde in sommer, easie to make hot, aud as soone becomming colde againe: in which peason, beanes, and other such like things do boile easily, and which being put for some space in a brasen, copper, or siluer vessell well scoured, leaueth no discoloured parts or spotes in the same, and which when it hath beene boiled in a caldron, made very faire and cleane, doth not make any setling or shewe of filth in the bottome: if such as vse to drinke it haue a cleere voice, a sound brest, and the die or colour of the face be neate and liuely; finally that which togither with the rest of the markes, is very light, and by consequent as principall of all the rest shall that be iudged, which excelleth in the foresaide markes and qualities; and for to know which is the lightest, weigh asmuch with asmuch of euery sorte of water, or else take two, three, or fower clothes of one and the same webbe, length, and breadth, according to the quantitie and sorts of water which you would compare together, and in euery one wet a cloath, distill the clothes, or let the water drop out of them, and then weigh them, for the cloth which was moistned in the lightest water will then weigh lesse than the rest. It is true that the lightnes of water is not so truely tried by weightes by drinking, not causing at such time any burdenous weight in the places about the

short

ſhort ribbes, and paſſeth through the body ſpeedily : as alſo in being quickly hot, and quickly cold.

Drie places and countries abounding with mountaines do commonly bring foorth ſtones, which is eaſely perceiued by the rough and boiſterous handling of the earth, and alſo by the ſtones lying vpon the vpper part thereof, which otherwiſe might haue fallen and beene caſt there: in manner as ſometimes it falleth out that men finde vpon vntilled groundes the liuely ſhapes of fruites, and corne gathered together and growne vnto the ſtone, which is to bee ſeene neere to Mommirall in Brie, where woode is growne vnto the ſtone : beſides that the hearth, will make quicke and ſpeedie triall heereof: This will doe you ſeruice in the incloſing either of your parke or of your vineyardes, and other ſuch like commodities, beſides the profite you may make of it by the ſelling of milſtones and ſtones to build withall. But looke well to your ſelfe and take good heede of quarries and caſting of ſtone-pits, and of their deceits, which oftentimes rewards vs with our paines for our labour.

Places giuen to bring forth ſtone.

Deceitfull ſtone-pits.

And as for the earth (taken and vnderſtood generally) it beareth all manner of corne, fruits, hearbes, timber-trees, mettals, ſtones and other thinges, and this hath beene giuen vnto it euen ſince it was firſt made, and heereupon olde writers haue iuſtly giuen vnto it the due name of mother: but although in reſpect of the cold & drie ſubſtance and nature whereof it conſiſteth, it may be called all of one temperature, yet it purchaſeth and getteth contrarie qualities, according to the ſeuerall ſituations it hath in diuers places, as alſo vpon occaſion of affinitie, intercourſe and participation it hath with thinges of repugnant qualitie : and hence do riſe the diuers ſortes of the ſame, and ſo diuerſe, as that euerie ground will not beare euerie thing but one or two at the moſt. For this cauſe to auoide both coſt and labour, ſee aboue all things, that you proue either by your owne triall and experience, or elſe by ſuch inquirie as you can make of your neighboures, what kinde of fruits, what kinde of corne, and what ſortes of trees doe proſper beſt thereon. Some places in *Fraunce* and the free countrie of *Beaux* beareth no other graine then rye, which is contrarie to the nature of the groũd new broken vp: another loueth nothing but wheat: *Solonge* loueth March corne, and ſometime Meſling : *Touraine* worthily called the garden of *Fraunce*, is found moſt plentifull in gardens and fruite trees, as that part called *Brie* or *Braye*, (becauſe it is ſituate betwixt the riuers of *Marne* and *Seine*) doth bring foorth fruites, and corne for ſuſtenance : and that quarter which lyeth betwixt *Marne* and the riuer of *Aube*, bringeth foorth an infinite deale of hay : notwithſtanding the diligence of the Farmer, may by his induſtrie ouercome the weaknes of a ground, euen as well as all ſortes of wilde beaſts may be tamed by the painefulnes of man.

Why the earth is termed by the name of a mother.

That it is againſt the nature of the free countrie of Beaux to beare any rie.

Touraine the garden of France.

Man by labour is able to tame euery thing.

In

Watrie and mariſh places.

In waterie and mariſh places, it will ſtand vs vppon to make our profit of the water, which you ſhall oftentimes by ſluces turne from his naturall courſes, into your paſture grounds and ponds of running and ſtanding water, for the profiting and helping of the ſame: about the brinkes and edges of the moſt commodious ones, you ſhall ſet rankes of ſuch trees and profitable plants, as you know to like and proſper in the water. And you muſt eſpeciallie obſerue and marke the diuerſitie of the bottome and vndermoſt parte of the ground, which in watrie places is often found to differ much and to be ſomewhat ſtrange, and according to the nature thereof, to ſet ſuch trees as may beſt agree therewith.

The vnder parts of watrie grounds.

Iſlands of Flaunders.

Your houſe being ſeated in ſuch places will be moſt ſtrong and pleaſant in ſommer, but of greateſt maintenance, preſeruation, and ſafetie, if you inuiron it round about with water, after the maner of an Iſlet, as it is practiſed in manie places of Flanders, who make the vſe thereof familiar among them, to reape thereby the benefite of fiſh in his ſeaſon, the fleſh of wild fowle, trees aſwell for fruite, as for fire and building, beſides the helps of their excellent paſture grounds; but in deed your owne health as alſo the health of thoſe of your familie, is impaired heereby, eſpecially in winter. Wherefore it will be better to build vpon high ground, as the auncient Romaines did, and to leaue the waters below, for the comforting of your ſight, if ſo be you haue not the meanes of cloſing in all the ſame round about, for your breed of young colts and other cattell, all which will like verie well vpon ſuch grounds except it be your cattell ſeruing to furniſh you with wooll.

To build on the tops of high ground.

Wilde grounds. Deſerts and Bull-ruſhes.

If your farme doe for the moſt part conſiſt of wilde grounds and deſerts, you ſhall make them arable by labour and paines, and recouer them, deluing them diligently and raking them often: for the bulruſh, brakes, and ſuch other herbes will ſoone be kild, when the earth is often turned. But and if you deſire with more haſte and certainty to deſtroy them, you ſhall burne the ground the two firſt yeeres, and ſow therein lupines or beanes, to the end that together with the curing of the diſeaſe of your fieldes, you may reape ſome profit and commodity.

Stonie groundes.

Stonie groundes are mended by taking away the ſtones, and if the quantitie be great it wilbe beſt to caſt them together in manner of ſome ſmall hillocke in certaine places of the ground: and ſo by that meanes the reſt wilbe cleanſed and freed: or rather when the daies of handieworkes ſhalbe got good cheape it wilbe beſt to digge the earth verie deep, and there burying the ſtones before-hand, afterward to couer them with the earth.

Vntilled grouñds.

If the farme conſiſt moſt of forreſts and woodes, you ſhall make thereof arable ground, by plucking vp the trees altogether, as alſo their rootes: but and if there be but ſmall ſtore, it will be enough to

cut

cut them downe and burne them, and then to till the ground. And such grounds are woont the first yeere to bring forth much, because that the moisture and substance, which before was spent in the bringing foorth and nourishing of trees, bushes and herbes, doth prepare it selfe wholly for the good of the corne that is sowen vpon it; or for that it hauing beene fatted & growen better by the leaues and herbes of many yeeres, which of it owne accord it brought forth before it was tilled, becommeth afterward sufficient to nourish and bring foorth great abundance of fruites: and so it commeth to passe also, that being robd of her former nourishment in time it groweth leane, loosing the freshnes and moisture which was maintained by the conuert, and therefore continueth not so fruitfull, as it was at the beginning.

Sandy grounds.

Sandie places may be made better by dung and marle, which yet notwithstanding euen without such husbanding, by meanes of som current of water running vnder the earth in some countries ceaseth not to yeeld good profite to their owners: but these crane rest, which is the principall remedie to helpe their weake and feeble estate, and also to be sowen with varietie of graine, as after rye, some kinde of pulse. The way to know such groundes is common: when the great sande is fast and yellowish, it is then found to be good for corne; and when it is white and drie, it is good for wood and wilde fruits,

What it auaileth to know the nature of great sand.

But it behoueth the Farmer to apply himselfe vnto the nature and temper of his field, and according vnto it, to sow and plant in euerie place such things as are best agreeing with them, as Pulse, Millet, Panicke, Ryce, Lentils, Fetches and other things which doe not require great store of fatnes.

Strong grounds

The strong, hartie, and fat soyle is good for Vineyeards, and is apt to beare great store of wheat-corne, foreseene that the yeere be drie, especially in the moneth of May, but small store of any other increase: yea and if the times be much giuen to raine, they will beare but a little corne, and great store of chaffe.

Rough grounds.

A rawe, rough, & tough soile is hard to till, and will neither bring forth corne, nor any other thing without great labour, howsoeuer the seasons be temperate in moisture & drinesse. To helpe the same, you must labour it most exquisitely, harrow it and manure it verie oft with great store of dung, so you shall make it better and lesse subiect to the iniuries of the sunne, windes, and frost: but especially desire that they may not be watered with raine, for water is as good as a poyson to them.

A clay ground.

The clay and strong ground, as that in *Bresse*, and other places of *Partois*, craueth great and deepe furrowes when it is eared, and euerie where else, as euen in the verie places where stones lye deepe and ouer couered againe with good earth, and this to the ende that the water may the better bee conueyed away which is naturally mixt

therewith,

therewith, and cannot so easily depart, by reason of the clammy slimenesse of the earth. This plot is not so fit either for trees or vines, except it be for some fruit trees, and those well husbanded and nourished. If you build there, then do it vpon some high ground, and neere enough vnto the riuer, and cause the Eastern and Northren quarter, because such places are subiect verie much to putrefaction, and verie vnwholesome.

To build vpon a high ground.

The territories of *Croie* and *Ardose* are more sound and wholesome, though they be more barren: but it must be made better and much mended, and imployed onely to that which it delighteth in: for the bayliffe of the husbandrie ought to know the nature of the ground, and not to force it to beare that which is contrarie vnto it, notwithstanding whatsoeuer you doe vnto it for the bettering of it: for of forced grounds there comes as much profit, as there doth of beasts, by violence vsed towards them. For suppose you may compell them, yet it shall be to your great cost and charges by reason of their hurts, maladies, and otherwise, for such cattell commonly stand not in good plight & state. The old Prouerbe also saith that a householder should giue greater heede vnto his profit, and the holding out or continuing of that which he hath vnder his hand, then to his pleasure and rare commoditie.

Territories and fieldes lying in Croye and Ardose.

The nature of the earth must be knowne.

An old prouerbe, that of compulsions comes no good.

Euerie countrie fit for good vineyardes is stonie and grauily, or full of pebbles, and is found to be better on the South quarters, or on the descent of the hill, lying on the side towarde the riuer, this place is not so good for corne: in the plaine or flat places thereof you must make it better and dung it. Make your buildings there on the sloping side, which looketh into the Southeast, where you may not remoone your selfe farre from the riuer, for the reason afore giuen.

The best soile, is that which is blacke, crumbling & easely turned ouer, that is to say, which easely falleth into small peeces in ones hand, and feeleth light, sweete, and fat in handling, like to that which is founde in the countrie of *Tourraine*, *Maine*, and *Anion*, which are fertile in all manner of fruitefulnes and abundance of goods, rich in hils, valleies, pasture-groundes, vale-grounds, vineyards, and all sorts of fruits: but vpon good cause they giue place to *Prouence*, part of *Languedoc*, and *Guyenne* and the better places of *Aquitaine*, all which by reason of the heate of the South Sunne, bring foorth not onely in greater abundance, but their fruits of all sorts of better qualities, and more forcible. This is the land of promise in our Fraunce, and hath no discommoditie, saue that of the Southern winde which they call *Austrault*, which, except it be tempred by the Northren windes, doth almost euery yeere ingender vnhappie calamities both in men and beasts. Wherefore in this countrie the dwelling places and buildings must be set vpon a hill, and the South winde shut out and denied all entrance

Good ground, a fruitfull countrie of France.

The fruitfulnes of Aquitaine.

The inconueniences of the southerne winde in Languedoc, Prouence and Guyenne.

entrance by lights, except when it shall be needfull in the depth of winter.

But to speake generally, the soile may be knowne to be good and to beare great store of fruites by these meanes: as, if it be somewhat blacke, or somewhat yellow: if it cleaue not, when it is ill tilled; if it become not myrie when great store and abundance of raine shall fall vpon it, but drinketh vp all the water that shall fall, and therewithall keepe this moisture and refreshment a long time: if in winter time it become not hard in the vpper part thereof; if without being husbanded or mended by great labour or fatnes of dung, it bring foorth flourishing herbes, timber-trees, straight, thicke, hauing great armes, and abounding with store of their seuerall fruits, and those good and well relished in their kindes, and if it yeeld great fruitfulnes of corne: if by being watered or rained vpon, it become blowne vp, and as it were stretched out and blacke, and not hard bound or turned white: if the water springing foorth of it be sweete; or if the greene soddes therof being broken in peeces and steept two or three howres in water that is sweete and of a good taste, do not marre or make woorse the taste of such water, which must be tried by tasting of it, after that it hath been strained and clarified. For naturally water issuing out from a spring, or wrung from somthing that hath beene steept in it, retaineth and carrieth with it the taste of the earth: and on the other side, if the earth steept in water, the same water doe after such steeping yeeld a sweete and pleasant relish: if cast vp, and two or three daies after throwne into the said ditch againe, it gather on a heape and rise higher then the said ditch: for in doing this it shewes it selfe to bee a fatte earth, and whereas one shall do nothing but pare the said ditch, without doing any more, it will be but indifferent; but and if he come not to touch the edges of the said dith, it will be light earth: furthermore if it be watered with raine, it yeeldeth a pleasant smell. On the contrarie the earth must be iudged of no valew, if it haue not all these signes of goodnes; and principally that which is cleauing like glue, like potters clay, chalkie, whitish, which shaketh and trembleth, which is too hard, rough and strong, which is watrie and marrish, which hath a salt or bitter taste, which bringeth forth trees & hearbes that are bitter, colde and thornie, as brambles, ferne, bryars, wormewood, iuniper, lauander, broome, butchers broome, and other such like: as on the contrarie side, rushes, roses, small grasse, three-leaued grasses, thornes, danewoort, wild plumbe-trees, & such other things do shew the goodnes and fruitfulnes of the soile, for the things aboue named are not found or nourished any where almost but in the sweete veines of the earth.

The signes of a good and fertile ground.

Naughtie earth.

The fifth Chapter.

The building and incloſing of our countrie farme.

PEace being purchaſed, then builde thine houſe, ſaith the wiſe and prudent houſeholder; and the author of the Latine Georgickes doth highly prize and valew thoſe great farmes and houſes, whoſe appurtenances and expences are great: but he counſaileth men to vndertake and deale with ſo little, as he knoweth well to do. For as great cages make the birdes neuer a whit the better, euen ſo it is not ſo ſafe and ſure a courſe to haue a coſtly and large building vpon the ground, neither yet to haue ſo faire and large fieldes, neither yet ſo great quantitie of groundes, as that they muſt be either all ill husbanded, or elſe if for the carefull tilling of one part of them, all the reſt be left & let goe vntilled, as neither to couet greedily, or aſpire to poſſeſſe other great & ſtately farmes, when he is not able to husband and till that which he hath already in poſſeſsion, if ſo be perhapes that a man long not to bring himſelfe wilfully into the danger of the lords of ſuch farmes, rather then to aduance or further their owne profite, like to thoſe bad carters, which will not ſee or ſuffer either horſe or man to ſtand ſtill, vntill by continuall toile and vnceſſant labouring of them about the grounds of his farme, he bring to paſſe that both landes, horſe and men be not able to holde out, but become little woorth, which is the cauſe that a Lord letting his place and demaines to farme, muſt make account that the earneſt deſire and watchfull regarde he hath to vpholde and maintaine his groundes in good plight, will not be accompliſhed or manifeſted by deed of indēture or poſting ouer of the charge to another, but rather it ſtandeth him vpon in his owne perſon to ſee ſuch as are to labour therein to be ſet to their worke, ouerlooking euer and anon the companie, & ordering vſed by the bailiffe of his husbandrie in the handling of his buſineſſe, that ſo he may preuent the miſchiefes aboue named. It is alſo ſaide of ſome men, that the eie of the maſter doth fat the horſe: and that matters are neuer ſo well cared for or looked to as by himſelfe. For there are but few either hindes, day labourers, or labourers by great, which doe not loue their maſters profit a great deale leſſe than their owne, and euerie day are behind hand in one duetie, or piece of worke or other, which ought to haue beene done.

Great cages make not their birds good.

Vnfaithfull farmers.

The eie of the maſter fatteth the horſe

No ſteward like to the lord himſelfe.

Better therefore is a ſmall houſe of good ſtuffe, not ſumptuous, well ſeated and well fitted (but let it haue of euerie thing a little) than ſo coſtly a place and of ſuch large roomes as that eitherr they become enuied of their inperiours for it, or elſe at length cauſeth the maſter to ſell it againe: for the good Romane husbandman ſaith, that a houſholder muſt ſo diminiſh the charges of euerie thing by his labour,

The office of a good houſholder.

bour, as that he may euermore haue moe things, and more to sel then to buie, and that he euerie day become more strong and powerfull then his field. For seeing that the Lord and it must needes combate, wrastle, and incounter the one with the other; if the fielde bee too strong, then the Lord is wronged. Euerie place in the fields is also oftentimes to be looked vnto, and if neede be, speedily repaired, because the decaie of any part of it, or of any thing which is to be vsed in it, being let alone and neglected onely one yeere, draweth on another losse as great as it selfe, and costeth thrise as much to make it vp againe, as and if it had beene looked vnto within a moneth or fifteene daies after the decaie did fall and happen. And their wordes in this case are of no value, which say, that grounds troden vpon and trampled with manie feete, are halfe eaten and spent: or that ground lying farre off, doth breede nothing but flagons and bottels. For I would haue the master to be more commonly there then at home at his house, & that he should so dispose of his estate, as that there may be both for all necessaries of foode and so foorth, and somewhat to spare: otherwise his house and demaines should minister more vnto his seruants then to himselfe, and his charges should exceede the increase and reuenues; and that as well in tarrying at home, as also when he goeth abroad, he make it his chiefe delight to vnderstand, and see the gouerning of whatsoeuer belõgeth vnto him, not troubling his minde with hunting, banquetting, much companie keeping, drunkennes, & welcomming in of euerie commer, & so to giue himself excessiuely to his delights and recreation of his spirit.

There must not any thing be let go to decay: be it neuer so little.

Grounds in husbanding waste what they yeeld in increase.

The placing of such building as is made, is most fit to be on the edges of some great hill, vpon some small hill, or the top of the hill, if the countrie bee tempestuous and full of mountaines: for by this meanes he shall reape the libertie of the aire and a goodly prospect, he shall be safe from the annoyances of foggie mistes, he shall not be oppresst with cold in winter by reason of ice, nor ouer hot in sommer, and the waters and floods which runne downe from the top of the hils shall not threaten, much lesse doe harme vnto the foundation of his dwelling place, as also he shall not bee too much subiect to the windes and raines of the whole yeere: he shall procure his principall lights to stand vpon the sunne-rising in the moneths of March and September: for the windes blowing from those quarters are drie, more hot then cold, but verie wholesome, as well for the bodie as for the spirit of man; and the sunne which commeth to enter betimes in the morning into the house, doth diminish and waste the darkenes and grosnes of the aire: adde further, that looke by how much his house shall be set more vpon the saide eastern point, by so much the more easily it will be able to receiue that winde in sommer, and bee lesse beaten in winter with frosts. The barnes shall be open towards

The seating of the dwelling house.

the ſun-ſet in reſpect of their greateſt lights, and withall ſhall haue one light ſeruing toward the North, for the cauſe aboue named: but all houſes for beaſts, ſhall haue their windowes towardes the South and borrowing ſomewhat of the Eaſt, for that the windes blowing from thence will keepe them ſound at all ſeaſons and times. It is true that as for ſtables for horſes it is neceſſarie to make them a light ſeruing towards the North, to open in the hot time of ſommer, during the vehement heate thereof, and that at the houre of their eaſe & reſt, which is noonetide: for at this time and houre, if you giue them not ſome breath of aire to coole them withal, the heat of the noone ſunne which would ſtrike in, and their owne, which is alwaies in the ſtable, as alſo their breathing and preſſe of the whole companie of horſe being there together, would ſet them in ſuch a ſweate, faintnes of body, and loathing of their meate, as that the very ſtable would wearie, weare and ſpend them as much as the plough it ſelfe. And as for the reſt of the buildings, or the baſe courts, it maketh no great matter vpon what coſtes or quarters you diſpoſe them, howbeit if you ſo contriue them, as that they may marke vpon the North, they cannot but be to good purpoſe. Theſe inſtructions for lights and windowes are not ſo ſtrictly inioyned, as that the differing qualities and conditions of countries where ſuch building muſt be made, may not moone you to diſpoſe them otherwiſe: for ſeeing there are found in ſome countries ſuch windes as are almoſt ordinarie, and may bee ſaide to haue gotten as it were a habit, and thoſe blowing from ſuch quarters as lye vpon the ſea or marriſhes, or ſuch other, and therefore bring with them ſome noyſome qualitie, or at leaſt little profitable: it muſt needes be permitted in ſuch places to alter and change the former directions. And to ſpeake the truth, ſeeing that by the meanes of windowes and counter-windowes, you may cut off the entrance both of ſunne and whatſoeuer windes, it ſhall be left in your free choiſe, to make ſuch lightes as may ſeeme moſt neceſſarie in your owne iudgements, being euer more directed againſt ſuch annoyance as the aire might bring from that place whatſoeuer, from whence it commeth.

Stables.

The baſe courts.

Reaſon muſt haue place before whatſoeuer elſe.

And although that euerie one build after his owne humour, yet the cauſe ſhould ſo ſtand as that reaſon ſhould rule euermore: & ſurelie ſuch a man ſhould be eſteemed but of a ſlender iudgment, which hauing a place and commodities belonging thereto, did not fit things in ſuch ſort, as that on the one ſide of his chamber he haue a light open vppon the court and forepart of his farme by which they muſt enter that come to it, and another open vppon his gardens and principal grounds. Wherefore that he may know the more eaſily to prepare his buildings as it were anew, or elſe repaire it after his owne fanſie, it wilbe meete and conuenient for him to doe in manner as foloweth.

Of the lights to be made in building.

Draw

Draw a great court and wide, and that verie ſquare euery way, in the middeſt thereof cauſe to be caſt two fiſhpondes at the leaſt, one for geeſe, duckes and other cattell: the other to water, ſteepe, or ſoften Lupines, Oſiers, Roddes and ſuch other thinges, as alſo for the rotting of your doung: and ſomewhat more to the further ſide, a well with two or three troughes of hewen ſtone to water your cattell & poultrie at, if you haue not the benefite of a running water or ſome neare riuer either great or ſmall. Make alſo two dunghills, the one to containe and rot all your new dung, and to keepe it till the yeere following: the other, that from it you may take the old and rotten dung and carrie it out into the fields. Theſe two dung-hils muſt be far from them, and on a ground falling from the forenamed fiſhpounds and well, if ſo be that the place will afford it, or elſe at the leaſt caſt deepe within the earth and paued in the bottome before hand, leaſt that the earth ſhould drinke vp the moiſture: for dunghills muſt of neceſsitie be kept in continuall moiſture, to the end that if peraduenture amongſt the ſtraw, litter, ſtubble, or chaſe which is brought thither, there be the ſeedes of any hearbes or thornes mixt among, they may rot, and not budde or bring forth any weedes, when the dung ſhall be ſpred vpon the ground. And therefore expert and skilfull ſeruants do couer with clay the dung which they caſt out of the ſtables, to the end the wind may not drie it vp, or that the ſunne or wind ſhould cauſe it to ſpend all the moiſture and turne it into duſt.

The forme of building.
Fiſhponds.
Dunghils.
Wels.

This court containing two acres ſquare ſhalbe compaſſed in with a wal of eighteene inches thicke, and tenne foot high from the ground, for the reſting of your buildings vpon that are within: and to meete with the danger threatned by theeues, and ruynes procured by raine, it ſhalbe ſtrenthened with chaines on thoſe ſides which lye next vnto waies, as alſo with good rafters, according to the greatnes of the commodity of your place and other ſtuffe.

The welles of the court.

In the midſt of the walle, and in the forepart, which is the part lying vpon the ſun-ſet, you ſhall make your gates and their porch, and in like manner a couer ouer head, to keepe the ſaid gates from the ſun and raine, which otherwiſe would beat full vpon them and ouerthrow them, as alſo for the ſpeciall vſe of your ſelfe and your familie, as to giue them place and ſhelter in the time of raine, or when they pleaſe. And the gates muſt be ſo high and wide, as that a carte laden with haie or corne may go in with eaſe: you ſhall raiſe it halfe a foote aboue the ground, and defend it on the outſide or vpper ground with a threſhold well and fitlie laide, and in ſuch ſort, as that vpon the running downe of water, it may not rot, which they would doe if they ſhould come cloſe to the ground, and that theeues may not caſt them of their hooks with leauers or crowes of iron ſtanding on the out ſide, which they might the more eaſelie doe if they ſhould be cut ſhort of

The doore of the houſe.

the earth, and not haue the helpe of the threshold.

A partition. Ouer against the porch toward the trade waie, you shall make a partition of tenne or twelue furlonges well inclosed with ditch and quickset, hedged round about, for the feeding of your tired, weary or sick cattell, which cannot keepe, or goe in company with others, as also wherin they may rest and chaw the cud in faire weather and in time of great heat.

The farmers lodge. The farmers lodge shall be built neere to the side of the porch vpon the left hand, and shall haue the daylight comming in vpon the side toward the street, westward; notwithstanding that his windowes shall lie vpon that side of the court which is Eastward. His kitchin shall be raised two or three steppes aboue the ground, to the end it may be freed of the moisture wherwith the court aboundeth in winter: it must also be high built & great, to the end that the floore lying next aboue may not be so subiect to the danger of the fire, and to the end that all his frindes and seruants may at all times easilie bestow themselues therein; the ouen shalbe set without the roome hauing the mouth in the inner side of the chimney of the said kitchin, and lower then the mantle-tree, not far aboue the hearth.

The farmers ouen.

At the entrance of the said kitchin and in such place thereof as shalbe least subiect to the sun and most coole, you shall haue a dairie-house or small vaulted roome paued, and lying slope-wise and with a gutter, to serue for the huswifes dairie, and therein shee shall doe all her businesse about making of butter and cheese, and the said gutter or sinke shall serue for the auoiding and conueying of all such washings as she is to make about her milke vessels. On the other side of the said kitchin she shal haue the like house of office or vaulted room, which shal also be for the huswifes vse and serue for a spence, to keepe her prouision of victuals in: and vnderneath this a little cellar, and the place for the comming out shall be in steede of an vpright table, set as you go into the kitchin.

The farmers chamber. On the other side of the kitchin shall be the farmers bed-roome, and one other ioyning to it for his maide-seruants and children, and a third ioyning close vnto it, for to keepe foule linnen. To the wals of which roome you shall goe forward to ioine a fourth which shalbe sufficient large, and the doore to goe into it shall stand in the court without, and it shall serue for fewell, working tooles, and other necessarie thinges. And the vpper part or loft of this roome shall serue for garners to lay fruits, al manner of pulse, corne, hearbes, and rootes in, that are to be kept.

Garners.

Stables for horse. Vpon the right hande as you go in shall be stables for horses, reseruing also a sufficient great lowe roome bounding the great porch,

Lodgings for mens seruants. for the Carter and other men seruants, as also for the keeping of collers, cart-saddles, traits, thicke clothes & other furniture for horses, &

along

along at the end of your horſe ſtables, you ſhall make houſes for oxen and kine. And ouer the ſaide ſtables, lofts and roomes for haie & prouander for cattell, adding to the end of theſe great houſes a little one, to keepe calues in of both kindes, which you haue weaned, with intent to bring vp for further ſeruices: at the ende of all theſe beaſt-houſes, and cloſe to the ſame you ſhall appoint a dogge-houſe, if you like not better to place the ſame in the midſt of your baſe court vnder ſome ſmall ſhed laide ouer with boughes, couered with ſtrawe, open at two places, to the end the dogges may take ſent and breath on two ſides, for this watch thus placed will ſerue for the whole baſe court. *Oxehouſes.*

In the place right ouer againſt the porch of the farme, ſhall open the doore of your owne houſe, which by a ſtaire of eight ſteps at the moſt, ſhall bring you to the firſt ſtorie of the ſame: the entrie whereinto ſhall be like vnto a plaine vacant alley of an indifferent widenes, with an outcaſt at the further end, vpon the garden, and that with a deſcent of a like paire of ſtaires vnto thoſe at the entrance. Vpon the right hand of this entrie ſhalbe your kitchin, ſtorehouſe, buttery, and a place of recourſe or lodging for two or three ſeruing men. Betwixt which kitchin and butterie, there ſhall be a winding ſtaire, which ſhall haue his foote into the kitchin, and thereby you ſhall go vp to the corne loftes there aboue: neere vnto your kitchin you ſhall make roomes to ſtampe and preſſe your grapes in. The firſt ſtorie ſhall be of ſuch length and bredth as your appointed platforme laieth out vnto you, borne vpon a raiſed vault from the ground, well ſtaied vpon bearing pillars, and furniſhed with caſements to take the aire at, vpon both ſides, and that to the ende that you may haue an vnderſtorie of like length and bredth to that aboue, which ſhall be a halfe-cellar, and a halfe-vault, which beſide that it will preſerue your lodging from earthquakes, will alſo ſerue you to couch your wines and cidres in, without any feare of rotting the hoopes, as alſo to hang your bacon and other powdred prouiſion, your oyles, candles, yea & your wood alſo: and your fruits likewiſe during the froſt. Your lodging or manſion ſhall haue no more then this one ſtorie, aboue which you ſhall raiſe no other ſaue onely your garners and galleries, keeping your houſe thereby of a lower pitch: and ſo leſſe ſubiect to the rage of the windes, which will ſaue you a great deale of charges, when as you ſhall not be forced to vſe the helping hand of tylers euery howre. Vpon the left hande of the ſaide ally or entrie ſhalbe your hall, through which you ſhall paſſe into your chamber, and out of your chamber into your wardrobe and inner chamber: and at the end heereof, if the bodie of your houſe ſhall haue compaſſed in place inough, you ſhall make a chamber to lodge ſtrangers, the way into, as alſo out of which, ſhall be by a turning ſtaire on that ſide toward the court, that ſo ſuch *The entrance of the houſholders dwelling place.* *The round ſtaires.* *The kitchin.*

ſtrangers may be at their libertie, not moleſting or troubling you by their paſsing in or out: and this if ſo be that your good liking and inclination mooue you not rather to build for the entertaining of your friends and other ſtrangers on the other ſide of your hall. You ſhall make your faireſt lightes and frames towards the eaſt vpon your garden, reſeruing onely halfe windowes for the ſide lying vpon your court, ſeeing they ſerue for no other thing, but that you may haue an eie vpon your folke, and to ſee who be commers and goers to your lodging, and at the end of euery ſuch little chamber you ſhall make a priuie, for the neceſſarie vſe of euerie of the two ſaide bodies of the houſe. Whatſoeuer roome ſhall be ouer head or aboue your alleyes, hall, chamber, wardrobe, and chamber for ſtrangers, ſhall be for garners, that ſo you may lay apart and by it ſelfe, your Rie, Wheate, Pulſe, and fruits, and caſt aſide your foule linnen, and they ſhall all of them haue prettie windowes vpon the north ſide, for that quarter is moſt coole, and leaſt moiſt: which two things are of great force long to preſerue and keepe graine. At the end of your roomes for the treading and preſsing of your grapes, you ſhall ſet vp your hen-houſe, and roomes for other fowles, faſhioned fowre ſquare like a towre, but yet more long then wide or broade, in ſuch ſort as that the loweſt roome ſhall ſerue for water fowles, as for geeſe and duks by themſelues; and the vpper for thoſe of the yeard, together with their pearches and baskets to laie in: and you muſt make vnder the hen-loft, ſome ſeparated rome for turkie chickins and turkie cockes: and vpon high vnder the floore that is ouer them, you ſhall contriue a cloſe roome after the faſhion of a lettuce therein to keepe your feaſants. As for your peacockes you ſhall giue them libertie to rouſt euerie where. Neere vnto the ſame place you ſhall make your ground Doue-houſe (if the lawe will permit you ſuch a one) in faſhion like a round turret in the midſt of your court.

The chiefeſt lights muſt be toward the Eaſt.

Garners.

The North winde good for the keeping of corne.

A henhouſe.

Turkie hens and cockes.

Peſants.

Set your ſheepe-cotes and ſwine-ſties vpon the ſouth, in ſuch maner as they may haue no open place but vpon your court, and vnto the principall ſheepe-cote you ſhall make a partition of verie high hurdels, to drawe the lambes from the ewes, as alſo the rames in like manner: and cloſe vnto theſe ſhall you make your ſwineſtie, raiſing two incloſures of wals wel dawbed on both ſides, the on for the ſowes, and the other for the hogges. In like ſort you ſhall deale with goates making ſeuerall cotes for them, and the vpper parts of all theſe ſhall ſerue for garners to lay their meat and whatſoeuer foode neceſſarie for ſuch cattell.

Sheepecotes and ſwineſties.

Lambe cotes.

Cotes for weathers.

Cotes for ſowes.

Cotes for goats.

Right ouer againſt theſe ſheep-cotes you ſhall make your barne, with his great doore of the widenes of the middle baie, and that to giue light to the threſhers: ouer the porch of the ſaide barne (if the lawe will not permit you to builde a douehouſe on the grounde) you ſhall

Barnes.

ſhall make you a place to keepe birdes in, of the ſame bredth with the porch, and as high as you will, the loweſt part of it ſhall ſerue for birds to keepe themſelues ſafe in, when either the raine or too much heate of the ſunne ſhall annoy them. One of the ſides of your barne, all along for the ſpace of three baies ſhall ſerue to put your rie and wheate in, and the other ſide for aſmuch length ſhall containe your pulſe or March corne: the middle part is that which is of the bredth of the porch, with his roofe aboue.

A hanging houſe for to keepe neceſſarie tooles for huſbandrie in.

And betwixt the ſheepe-cotes and ſwine-ſties, right ouer againſt the porch of the barne, you ſhall make a place of a competent height in manner of an appentice to ſet your ploughes, great carts, draies, tumbrels, waines, and other inſtruments and furniture for husbandry, if you pleaſe not rather to make the ground worke of your place to keepe and nouriſh byrds in, to ſerue for theſe purpoſes, when as your authoritie wil not beare you out to build a douehouſe on the ground, bicauſe you hold not in fee farme, or coppie hold.

Gardens and their partitions.

Vnder or vpon the ſide of your turne ſtaires according to the bredth of the bodie of your houſe, your farmer ſhall haue a way into the gardens: but you your ſelfe ſhall haue your way in by another winding ſtaire, which you ſhall make to deſcend from aboue, from your alley that is ouer them: the one of which gardens, as that one the right hand ſhall be for pot-herbes, and the other for quarters and pulſe, together with a place for Bee-hyues.

At the end of a great ally which you ſhall make from your winding ſtaire to the wall of your orchard, running betwixt the two gardens, without any manner of partition, except two hedges of quick-ſet, ſhall be your orchard ſeparated from your other gardens, by a wall continuing al along the two ſides of the incloſure of your place. And in the middeſt of the ſaid great ally, there ſhalbe wels to water by pipes and ſpouts, ſo much as is needfull in the gardens, if it like you not better to conuey ſome fountaine that way, or elſe to ſeeke for the heads of ſome ſprings, or elſe to make a ceſterne wel mortered to receiue and keepe raine water.

Feeding or paſture ground.

The Orchard ſhall make the fence on the ſide toward your houſe, and by it you ſhall make your waie into your feeding or paſture grounds, lying along by the ſides of ſome greene and flouriſhing water bankes, along the ſides of which brooke as alſo about your ponds of ſalt and freſhwater fiſh, you ſhall plant willowes.

The two nurceries for pippins and ſtockes.

Where you enter into your orchard out of your garden, you ſhall on the one ſide make a nurcerie for ſeedes and kernels, and one the other ſide for ſtockes and plants, and in the midſt the rankes of remooued and grafted trees, and at the end belowe you ſhall plant by ridges your Oſiers, which may for their better proſpering take the benefite of the coolenes and moiſture of ſome ſmall brooke.

The

The backe gate. The falſe gate (otherwiſe called the backe or fielde gate) on that ſide toward your meddow, made for your owne going in & out alone, ſhall be ſet out and garniſhed with tow Cheurons, ſet vpon one maine timber and no moe, and fower or fiue battelments aboue, and ſhut with a ſtrong doore: for that way you ſhall go into your houſe priuily, and in like ſort goe foorth againe, when it ſeemeth good vnto you, without your ſeruants their priuitie, and for your auoiding of the noiſomnes of the beaſtes houſes and of your great court. And to this end you ſhall haue a ſpeciall paſſage from your ſtable or garden not farre from your houſe wherein you treade your grapes, to driue your cattell by continually.

The building muſt be according to the greatnes of the liuing. Notwithſtanding all which, yet my meaning is that your coſt and courſe in building ſhould be according to the reuenues of the groūds or value of the profits, and that (as ſaith *Cato*) the dwelling houſe be not ſet after ſeeking of groundes, nor groundes cauſed to goe ſeeke houſes and roomes: for great plots of building and incloſures of pleaſure, coſt much to build and maintaine: and buildings which are leſſe then were requiſite for the profits of the grounds, are a great cauſe of much loſſe in the fruites of the ſame.

The ſixth Chapter.

The dutie of a father of a familie, or houſholder.

The father of a family muſt haue skill in matters of huſbandrie. After I haue thus diſpoſed of roomes and building, I wiſh and derſie that the Lord of the Farme may be a man of great knowledge, well acquainted, and giuen to matters of husbandrie: for who ſo is ignorant of them, hauing had but ſmall practiſe in thē, as alſo he which doth take his chiefeſt delight in other things & ſpendeth his time other wiſe, muſt of neceſsitie commit himſelfe to the mercie and diſcretion of a farmer, which will mocke him to his face, and will impaire his groundes and houſe alſo, heaping thereto a world of quarrels and ſuites which he will raiſe; or elſe he muſt truſt to ſome other accompliſher of the buſines either in gouerning or waiting and attending, & he asking counſell of other the farmers thereabout, they will make him beleeue things to be not ſo good by the halfe as they are. And indeede wee reade for a certaintie in the Romaine hiſtories, that the earth was neuer ſo fruitfull, as then when it was allured and wonne by the induſtrie of the famous Romaine citizens, and deliuered out of the tyrannous handling of groſſe-headed peaſants, whom we ſee before our eies, notwithſtanding that they are altogether ignorant, to growe rich at our coſtes and charges, and to the great ſpoile of the ground which they husband and till. There is nothing comparable to the ouer-looking eie of a prudent and diſcreet

ereete Lord, and one that is accuſtomed to husbandry, and which looketh after and contenteth himſelfe with ſuch eſtate as may ſtand with his profit, and keepeth to himſelfe the principall charge, which is a watchfulneſſe and earneſt deſire to preſerue his goodes, and hath alwaies care of his companie, and farmeth not, nor yet renteth out any thing but that which he will haue nothing at all to doe withall, except a little ouerſight: neither yet would I haue him in ſo doing, that hee ſhould paſſe any bargaine by the way of Notaries or by writing: for by this meanes he robbeth himſelfe of his libertie. Let him learne well to know and vnderſtand the natures and choiſe of men, cattell and groundes, and let not that worke poſsibly fall out, which he himſelfe knoweth not to doe, if he ſhould ſtand in neede, or elſe to giue directions in and to commaund vnto others; at the leaſt let him vnderſtand the times and ſeaſons when, as alſo the manners how things were accuſtomed to be done. For as a man which ſeeth not any place, whereby he may giue light to another, can neuer lighten him ſo well: euen ſo that Lord of a farme which vnderſtandeth not, neither knoweth the ſeaſons and proper times for to do any thing belonging to his gouernment & iuriſdiction, neither yet the ordering of things, to execute euery thing accordingly, ſhall neuer know ſo well what to commaund, and doth nothing to the workman but trouble and greeue him; and it is the manner of men to mocke at ſuch as commaund and will things to be done which are nothing to the purpoſe, but muſt afterward be vndone againe, or elſe abide without any profit. This is it which the great husbandman *Cato* hath written, that the ground is very ill intreated and greeuouſly puniſhed, whoſe Lord and owner knoweth not to teach and commaund that which is to be done: but muſt depend and relie wholy vpon his farmer.

What things are moſt fit to bee farmed out.

I meane all this while, that the abode of the owner of the farme is vpon his inheritance, and that he haue the royaltie and chieftie of the whole, and that he doth withdraw himſelfe from home, and ſecretly returne thither againe, when it ſhall ſeeme good vnto him, to keepe his people continually in doing of their office and charge: this is the cauſe why among the reſt of his buildings, we haue counſelled him to prouide a backe gate in the end of his incloſure. Let him not go to ſee the towne, except it be vpon his earneſt affaires, and let him commit his ſuites to be followed (which without great loſſe he cannot let paſſe and neglect) by ſome faithful atturney, to whom he ſhal giue nothing but the onely counterpaine of his euidence: and being in the towne let him not goe to ſee any man therein, except it be in winter, or at ſuch time as when his harueſt is in, and his ſeede time and firſt arder be diſpatcht, to the end, that by one and the ſame meanes he may attend vpon his cauſes in controuerſie, and goe about the getting in of his debts: I wiſh further that he carie himſelfe pleaſant and courteous

The cheefe key of all the reſt.

A priuie doore.

To order his ſuites.

What time the houſholder ſhould keepe at his farme, and when he may beſt goe abroad to the towne or elſewhere.

vnto

Men cannot abide to bee roughly intreated.

vnto his folke, not commanding them any thing in his choler: for boisterous and rough handling wil preuaile as little with men, as with stiffenecked iades. Let him speake familiarly vnto them, let him laugh and iest with them sometimes, and also either giue them occasion, or else suffer them to laugh and be merrie. For their vncessant paines are somewhat mitigated, when they are vouchsafed some gentle and courteous intreatance of their maister towards them. Notwithstanding I wish him not to be too familiar with them for the auoiding of contempt: neither would I haue him to acquainte them with his purposes, except it be sometime to aske their counsell in a matter, and let him not spare sometimes to seeme to doe after their aduise, though he had determined the same course before: for they will worke with more cheerefulnes, when they thinke that the matter is caried according to their inuention. Let him maintaine the cause of his neighbours, and not to arrogate vnto himselfe or take any thing vpon him as commaunding them, let him also relieue them in their necessities. And yet let him not lend them except it be some small thing, and such as he had rather loose then aske twise, except it be in their extreme neede and necessitie. Let him patiently and quietly beare their tedious and troublesome natures, whom he knoweth to enuie and repine at him, neuer falling out with them, or giuing them euer any iust occasion of displeasure: but winking at that which he knoweth of their nature and naturall inclination, let him pleasure them to the vttermost that he can, and seeme to be at one with them, as if he had neuer vnderstood any thing to moue him to the contrarie. And thus he may purchase peace and rest.

The seuenth Chapter.

The office of the farmer.

TAke vnto you for your farmer a man of indifferent yeeres, not sickly, but lustie and strong, and of the same countrie and soile that your farme lieth in, if it be possible, and him such a one, as whom you haue knowne of long time, or else by the report of honest men haue heard of, to be a good man, and his wife also to be a thriftie huswife, and his children well nurtured. Such a one as hath no farme or inheritance neere vnto your house, who from his youth hath beene hardly brought vp, and well experienced in matters and businesses belonging to husbandrie, or otherwise by meanes of great diligence and good will toward the same, hath attained the mysterie of husbandrie. One who is a sparing and sober minded man, not poore and very needie, a gadder to townes, quareller or haunter of alehouses or tauernes, not suffering any thing to goe backward, or by little and little to come to nothing: one that will vse to rise first and goe to bed last,

not

not haunting markets or faires at townes if it be not vpon verie vrgent neceſsitie; not admitting of new waies or pathes, and breaches into his groundes, or ſuffering any incroachment to be made vpon the leaſt part of the inheritance belonging to the Farme: for an inch of ground loſt in one yeere is worth a foote within two yeeres after; which will not vndertake to lodge any gueſt if hee bee not the very friend and familiar of the Lord of the ſoile; which is giuen to haue himſelfe & all his family cloathed rather for profite then for pleaſure, as namely, to ſaue them onely from the winde, colde, and raine, for which purpoſe ſhall ſerue garments and ſleeues made of skins, caps, clokes with hoods or caſſockes of canuaſſe. For by this meanes there ſhall be no day ſo boyſterous and cruell, wherein they may not worke abrode; one which will not haue any other to his ſeruant, but ſuch as is fit for the buſines belonging to the farme, and for the worke and profit of his maiſter. Not giuen to play the marchant for himſelfe, nor to lay out his maiſters money in cattell and other marchandiſe. For ſuch buſineſſes doe turne away and hinder farmers from attending vpon the affaires of the houſe, and cauſe them that they are neuer able to render any ſound account vnto the Lord of the farme: and againe if they be demaunded ſuch moneyes as they owe, they ſhew you nothing but layings out and coſts in ſtead of pence. Such a one as will make no bargaines when he is in drinke. And for writing and reading it ſkilleth not whether he be able to doe it or no, or that he ſhould haue any other charge to looke vnto beſides that of yours, or elſe that he ſhould vſe another to ſet downe in writing ſuch expences as he hath laid out; for paper will admit any thing. Againe you ſhall not put him to make reckonings of long time, neither yet of moe things then his memorie may well carrie away. It behoooueth that he bee skilfull in all things, for which he hath tooles, inſtruments and handie worke to exerciſe himſelfe with and in, about his matters of husbandrie. As alſo that he knowe to gouerne and amende all ſuch tooles as he hath the handling of, or which his folke vſe: otherwiſe if there ſhould but needea handle to a ſpade, or a naile to a horſe or tumbrell, there muſt preſently be admitted into wages a naile-ſmith for the cart, and a ſhoo-ſmith for the horſe. This his knowledge ſhall alſo ſerue him to iudge if he be well dealt withall by ſuch crafteſmen, as to whom he ſhall of neceſsitie be driuen ſometime to commit, either to be mended, or elſe new-made, the inſtruments requiſite for his buſines. He muſt haue tooles and inſtruments, twiſe ſo many in ſtore, as he vſeth to haue workmen, to the end they neede not to borrow any thing of their neighbours, for otherwiſe he ſhall loſe more in daies workes not fulfilled, then would pay for the buying of his iron tooles. Againe let him at the firſt time doe his worke ſo well, as that he need not to go ouer it the ſecond time. For in attempting to mend

Husbandmens apparell.

To know to write and read is not neceſſarie for a farmer.

Paper endureth all things.

A farmer muſt haue much knowledge.

that

that which hath beene done amisse for lacke of heede or negligence, beside the losse of time, which alwaies is required in labour, the thing it selfe is also impaired and made worse, and this is losse vnto the Lord for the present, & without hope of recompence for the time to come, not being fit to yeeld such profit as it was wont in yeeres past.

Let him haue his eies alwaies vpon his people, and ouersee his cattell euerie night, and not onelie when they are in the house, but also as they returne from labour or from the pasture: let him view and looke well vpon their countenance, gate, state and gesture, for to know, if their be anie diseased or languishing, and from this care he is not to exempt himselfe any one day in respect of the oxen, kine, swine and sheepe: for oftentimes in the morning they goe to the place of their walke in good state and plight, and returne sicke home at euening, let him not goe to bed before he haue appointed euerie one of his people what he is to doe the next daie in the morning. Let him be last in bed and vp againe by breake at the spring of the day, to see his companie euerie one set to his appointed worke: let him euerie morning view the state of his grounds, let him not suffer his cattell to be dulled with labour, and let him know the remedies that are good for them against falles, wrenches & such other inconueniences. Aboue all thinges let him be true, let him keepe and hold to performe what he hath spoken, let him not sweare, but shew such example to his people, as that thereby he may induce them to esteeme highly of him, to reuerence and to honour him. For as a true and simple speech maketh a man to be highly regarded: euen so a blasphemous mouth, and such as is full of oaths, an vnprofitable, wanton, and scornefull speech, accompanied with euill example of deeds, maketh a man contemptible amongst all men. Let him eate and drinke among his seruants, and of the same, and at the same table. Let him pay them their owne iustly, declare his minde vnto them in milde sort, and not to pay them any thing before hand, if it be not in case of losse or sicknes.

To hasten seruants too much, is no preferment to profit.

If you set any pieces of ground to him to farme (for still I vnderstand that the chiefe charge and oursight should be yours) let him not runne day after day behinde hand with you, least so you might make him negligent and an ill pay-master, both to your losse and his owne, and yet seeming to hold him excused, either in respect of the vnseasonablenes of the time, or hardnes of the yeere, if either of the two can in any likely sort be alleaged. In which cases also you shall somewhat beare with him, and let him pay at many and little payments what he ought to haue paide together, thereby to ease him so much as may be, and to the ende he may bring his farmer out of his debt, he shall not let to take it by penie and penie euen by any verie small payments. Do not pinch him of such necessaries as he shall request of you, whether it be for the maintenance of your house, or the

Necessarie things to be prouided.

repairing

repairing of any other things that do belõg vnto you: Watch him not so neer, as that he may haue cause to complaine, for he may wring you in some one thing that you would neuer thinke of. And marke, that to be much exacting and ingrating vpon your farmer, doth oftentimes make him either a meere negligent or a plaine theefe. Praise him for what you see discreetly carried in the affaires of your farme, & rebuke him not sharply for that which you shall not finde so well done, but counsell him to amend such and such bad trickes, signifying vnto him therewith, that in so dooing he shall greatly please you. Now adaies farmers doe not thrust themselues vpon a man, or offer themselues in multitudes as they haue beene woont to doe in time past, and therefore it is no more a common thing for masters to make choise of some one among many, but he must be content to take such a one as hee can finde. For this cause it is needfull for the Lord of a farme to know the diuers dispositions of men of diuers nations: for the *Norman* loueth to be peaceably delt withall: and contrariwise the *Picard* doth stand in neede to be handled hotly. The naturall Frenchman is readie and full of inuention, but not verie hastie except necessitie doe mightily prouoke him. You haue a threefold choise of the *Bryais*, for there are some of them subtill, and some fierce and outragious, and othersome silly and sottish. The *Lymosins* are industrious and giuen to sparing, but if you take not heede, he will rather procure his owne profit then yours. The *Gascoin* is hot and quickely fallen into choler. The *Prouinciall* is haughtie and cannot indure to be reproued. The *Poiteuins* are deceitfull. The *Auuerguaes* are industrious, painfull and induring all alterations of time and fortune; but and if he once spie out the thing whereby you gaine, he will share with you or else it shall goe hard. The *Angeuin*, *Taurangeois*, and *Mancean*, are wittie, subtill, and louers of their profit. The *Charrain*, *Beauceron*, & *Soloignois*, are laborious, peaceable, apt, and giuen to be gatherers and close graspers. The *Champenois*, and *Burguignons* are francke free, and of a stout hart, but opinatiue and wedded to their owne conceits, so that you must oftentimes let them goe on, vntill the thing it selfe shew them their errour. Then according to the countrie and complexion that your farmer is of, whom you shall place in your farme, you shall resolue with your selfe to handle his humour mildly and cunningly, that so you may draw from him for your profit as much as possiblie you can, applying and fitting your selfe to beare that in him, which you shall see past hope of amendment. But of many and diuers nations haue a care to chuse out of many bad, the best, and after such choise to be warie & circumspect to preuent that in him which might hurt or hinder you. Considering that as grounds are of diuers natures, and loue that which agreeth with their natures: euen so there are some men more fit, apt, and inclined to one thing, then vnto others.

It is not good to exact too much at a seruants hands.

The naturall inclination of the seuerall countriemen of Fraunce.

Normans.

Picards.

Bryais.

Limosins.

Gascoins.

Prouincials.

Poiteuins.

Auuerguaes.

Angeuins.

Taurangeois.

Manceans.

The

The eight Chapter.

That the farmer must haue knowledge of the things foretelling raine, winde, faire weather, and other alterations of the seasons.

The foretelling of raine.

YOur farmer, although he neede not to be bookewise, notwithstanding by longe and assured experience must haue some knowledge in the thinges foreshewing raine, wind, faire weather, alterations and changes of the aire, of all the parts of the yeere and of the qualities of the same, of tempests, lightnings, thunders, coldes, frostes and haile, that so according to the fitnes of the seasons hee may begin himselfe, and set all other his workemen to their labour.

He shall knowe before hande that it will be raine by these and others such like signes: if the moone when she is verie newe haue her hornes obscure: but if the higher horne of the saide croisant be more obscure and darke then the lower, it will raine about the last quarters: but if the lower be more darke and obscure then the higher, it will raine in the first quarters; and if it bee blackish in the midst, it will raine at the full moone: if the croisant or bodie of the moone hang sagging and looke toward the west, it is a signe of raine: or if the moone being in the full be compassed about with vapours, and haue one or two blacke and thicke circles about it: or if the moone haue a pale face and colour, he shall marke whether the fourth, or as some will haue it, the fift day of the age of the moone be rainie: for in these daies lieth the manifestation of whatsoeuer shall follow in the whole course of the same, whether it be vnto windes, or vnto raine or vnto faire weather. He shall also see before that it will be raine, if the sunne be red at his rising, and by and by afterward become blacke, if round about the beames of the sunne at the rising thereof, there appeere a little darke cloude: if at the rising thereof it seeme hollow and as it were sunke, or if it haue some red clouds about it, mixed with other blacke ones, or some what grayish, or if it haue a circle about it like to that of the moon: if at his rising it cast forth certaine beames or clouds toward the west or southwest wind. If at the rising or setting thereof it haue his beames maimed, shortned, faint, and weake: if when it riseth it haue his beames troubled and incombred, and yet not through the occasion of any cold: so if when it riseth it cast foorth his long and stretched out beames crookedly and ouerthwart the clouds, notwithstanding that as concerning all the rest it be verie cleere and bright: if before it rise it cast and put foorth certaine beames: if at the rising thereof the clouds be red as well in the east as in the west: if when it setteth there appeere neere vnto it vpon the left hand a little small cloude,

cloude, or if in ſetting it ſhut vp it ſelfe in whitiſh cloudes, like vnto fleeces or cardings of wooll, and that they do ſpred themſelues broader and broader, it will raine within a fewe daies: if the other planets be alſo compaſſed about with a circle, it is a ſigne of raine: if the ſtarres do not twinkle or giue their accuſtomed glimces, or ſhewe more great, or haue about them ſome ſmall circle, it is a ſigne of great ſtore of water. It is alſo a ſigne of raine if it lighten in verie faire goodly weather, and when the skies are cleere and beautifull: if in ſommer the lightnings do exceede the thunder in quantitie: if it thunder at high noone: if vpon the tops and higheſt parts of the hils there flye ſcatteringly and in wandering ſort, thicke and groſſe cloudes: if after that raine is ceaſed, there riſe a ſharpe and colde wind; for thereby the raine will begin againe afreſh: if little birdes haunting the fennes, be continually waſhing themſelues in the water: if the crowe do wet her head at the brinke of the water, or wade into it, and crie verie much toward euening: if the rauen ſound out her ſong from the hollow of her throat, & boaſt hirſelfe of hir wings: if the geeſe cry & fly more then they haue beene accuſtomed: if the bees will not flie farre from their hiues: if the heron wander and whirle about to and fro in the midſt of the fields all ſadde and lowring: if oxen eate more then ordinarie, lie downe vpon the right ſide, looke toward the ſouth, licke their hooſes all about: if the kine looke vp into the aire, and drawe in the ſame: if the aſſes braie: if cockes crowe at all houres, and chiefely at euening, when they are vpon their pearches; for the crowing of the cocke at an vnuſuall houre, as at nine, ten, eleuen a clocke at night, ſignifieth indifferently change of weather from drie to moiſt or contrarie: if the ſalt become moiſt: if the common iſſues or priuies doe ſtinke more then vſually: if ſuch creatures as are gentle take not ſo good reſt and continue not their peaceable courſes as they did before: if the woolues yell and runne neere about houſes: if ſpiders fall downe not being blowne downe of the winde: if dogs tumble and wallow on the earth: if pigeons come late home to their houſe: if flies, waſpes, and hornets, fleas and knats bite more keenely then ordinarily they are woont: if the ſound of bels be more loud and ſhrill, and heard further off then they were wont: if the cranes forſake the valleies and returne at a verie good houre: if in ſommer it lighten when it thundreth not: if aſſes, old and yoong mules without preſent occaſion do rubbe their eares a great while: if the tezill gathered and hanged vp in ſome part of the houſe do ſhut vp and cloſe his prickles, as taking a new ſhape, and caſting off all his roughnes: if the ſparrow crie earely: if the little frogs croope more then ordinarie: if the ſoote of the chimney fall haſtely and in great quantitie: if the aſhes clutter together into bals: if the oile ſparkle in burning lampes: if the three leaued graſſe do cloſe vp it ſelfe and gather together his leaues: if the

swine do play a long time, and runne to and fro, shaking and tearing what they haue taken in running: if the wormes come out of the earth: if the cat after that she hath a long time liked the sole of her foote and trimming the haire of her head, doe reach the saide sole of her foote oftentimes ouer her eare.

Signes foretokening great store of raine.

Likewise he shall foretell great abundance of raine, if the cloudes be darke, deepe, and thicke, if the drops of water falling from the skies be somewhat whitish, and make great bubbles and great fals heere below: if the raine fall mildely, and begin to fall with small drops: if the water fallen vpon the earth in great abundance without any winde, be incontinently drunke vp of the earth: if the waters of the fennes and standing pooles grow warme without the heate of the sunne more then ordinarie: if hens with their chickens by and by in the beginning of the raine doe flie vnto their houses: or if in the morning they come foorth late and as it were not vnconstrained to their feeding: if the heauenly bow (called in Latine *Iris*) do stretch it selfe towards the south, or if it appeere double, triple, or fourefold in the heauens, and if it appeere after it hath rained, the feare of future raine is not quite abandoned.

Signes foretokening snow.

He shall foresee times of snow in winter, if he perceiue that the cloudes of darke ones become as it were whitish, chieflie when the north winde bloweth: if round about the Sunne or the Moone there come diuers pale circles, or halfe red ones: if in the time of great cold the aire grow thicke, and somewhat rebated of his sharpenesse: if it make a drie colde without any frost: if togither with many signes of raine, there appeere many also of cold approching.

Haile.

He shall iudge in like sort of haile, if in the spring or Autumne, he see that the cloudes of blacke and darke ones, become whitish: or if about the moneth of Aprill togither with many signes of raine there be mixt darke and whitish clouds.

Signes foretokening winds.

He shall giue good heed to the tokens foreshewing future winds, and they are these: if the sunne at his sitting be red: if the sunne set amongst reddish clouds: if the sunne all the day long, or a great while before his setting haue carried a purple colour, and setting seemeth greater then ordinarie: if the moone haue a red face: if the cloudes in a faire season and beautifull skie bee carried on high: if the cloudes appeere in the heauens gathered togither as they were flockes of sheepe: if forrests and the high tops of mountaines doe make a noise: if the starres of heauen runne euerie waie: if they seeme more grosse, and of greater light then vsuall: if it thunder in the morning, or in winter: if in the spring time it thunder more mightily and ofter then it lighteneth: if the sound of bels be sometimes heard very easily, and by and by not to be heard: if the sparrowes do sing and chirpe beyond measure: if the dogs tumble themselues vpon

the ground: if the webs and ſmall threads of the ſpiders doe flye in the aire: if the duckes doe ſpread and flicker with their winges often and a long time together: if the heron crie toward night as he is flying: if the flame of the fire caſt foorth many ſmall ſparkles: if the wood do crackle and breath out winde more then ordinarie.

The ſignes foretokening thunder, lightnings, and tempeſts.

He ſhall foretell the hapning of any thunder, brightnes, lightning and tempeſt, when he ſhall ſee that in the morning and euening in ſommer, or in the beginning of Autumne the ſunne yeeldeth a greater heate then ordinarie; and when there appeareth in the aire a verie thicke and deepe cloude: if the winde called *Typhon* cauſing whirlewindes doe blow ragingly, and that the aire be full of many thicke and darke cloudes: if the daies in ſommer or autumne be more feruent & hot, then the ſeaſon of the yeere can naturally beare, and that ſomtimes at the ſun-ſet there appeare a rainebow toward the Weſt: if there flye in the aire many airie impreſſions and burning flames.

The ſignes foretokening faire weather.

He ſhall be aſſured of faire weather when he ſhall perceiue that the ſunne ſheweth it ſelfe cleane at his riſing, or cleere and ſhining at his ſetting, hauing about it many ſmall cloudes apart one from an other, and withall ſomewhat red and pleaſant: when the ſunne in the time of raine ſetteth, hauing his face red and firie: and when the day-breake, which men call the morning, ſhall appeare of the naturall colour of white: and in deed the Prouerbe (A red euening & a white morning, ſetteth the pilgrime a walking) teacheth as much; if when the moone is three or foure daies old, it ſhew it ſelfe pleaſant & cleane without ſpots or clouds: if when it is in the full it be ſeen cleare, & that that part of the heauens called *S. Iames* his way appeer cleer & bright: if at euening there appeere many lightnings not accompanied with thunders, or cloudes: if at euening or morning (at what time of the yeer ſoeuer it be) the dew fal in great abundance: if the northern wind blow ſtrongly; if the owle after ſun-ſet doe come foorth and whup all the night without ceaſing; if the little flies before ſun-ſet do ſwarme together, and ſport themſelues in the ſun-beames; if the crowes flock together in great companies and call with a full voice; if the crowe call earely in the morning: if the bats doe come foorth of their holes at ſun-ſet, and flie vp and downe in the open aire: if the cranes flye high and doe not betake themſelues verie quickly to a lower pitch: if water foules do haunt ſomewhat far off from the ſide of the water.

Signes foretokening the beginnings and endings of times.

And although that the parts of the yeere ordinarily haue their beginning and ending at a certaine time, as the ſpring beginneth about the ſeuenteenth of Februarie, and endeth about the ſeuenteenth of May, and ſo conſequently of the other: notwithſtanding, for as much as theſe parts and ſeaſons doe ſquare and fall out of order, ſomtimes ſooner, ſometimes later, the good husbandman ſhall haue ouer and aboue the common, certaine ſignes and tokens to foreſee the be-

ginnings and endings of the time of the yeere as they may fal out extraordinarily. As if he know that water fowles forſake the water, or that the houſe-nightengall, eſpecially the male, doe ſing more then any of all the reſt: if the cranes flocke together, and returne vnto the place from whence they are come: if the geeſe fight together for their feeding place, being in great leanenes; or if the ſparrow more then ordinarie call betimes in the morning, hee ſhall ſay that winter is at hand. In like manner, if he ſee that the weſtern winde begin to blow, and that the cold rebateth: if the ſwollowes do returne in flockes: if the ducks haue their breaſt-bone white at the ende of winter, he ſhall iudge, that the ſpring will be verie quickly: for ſuch creatures do ſenſibly feele and obſerue the bounds and approches of ſeaſons, howſoeuer out of courſe and extraordinarie that they be.

Signes foretokening cold. If in winter in the beginning of froſts, he perceiue that the birds haunting ſtanding waters, do betake themſelues to flouds and riuers, which are not ſo apt to freeſe, or that the ſnow falling from the skies is but in ſmall and thinne flakes: if at the beginning of froſt there fall ſome ſmall, round & white haile: if the little birds do hide themſelues in the buſhes, and ſeeke for their liuing neere to townes and villages: if the fire giue a more ſhining flame, and make a hotter coale: if that woollen or linnen dipt in water doe by and by freeſe: if the vtmoſt parts of the body become ſuddenly cold: if in winter the things which were wont to be moiſt & wet, are eſpied to becom dry: if the drops of water cõming from the roofes of houſes do fal one a good while after another, he ſhall hold it for firme, that cold is neere at hand, or elſe that that which is alreadie will be very violent & of long continuance.

A long winter. He ſhall prognoſticate the length of winter, when he ſhall ſee that the oakes will be full of acornes, or when the ducke at the end of winter ſhall haue a red breaſt bone, or that the hornets doe appeere before the end of October; or that cattell which goe together in herds do trample the earth to mire.

The heate of Sommer. He ſhall iudge great ſommer heat to enſue, if he ſee that the rams and old ſheepe doe couple together oftentimes in the ſpring: for ſo indeed of the conſtitution and temper of one part of the yeere, a man may eaſily iudge what will be the tempet of an other: for ordinarily, if one part or quarter of the yeere be cleere, faire weather and dry, it muſt needes fall out that the other ſhould be rainie: as for example, a rainie winter doth commonly follow a drie autumne: in like manner, a drie ſpring commeth after a rainie winter: and ſo conſequently the other parts of the yeere do carrie themſelues in heate, cold, moiſture and drineſſe. Generally, he ſhall be able to prognoſticate of the ſtate of the whole yeere, following the prognoſtications of auncient fathers as concerning the day whereupon the firſt day of the feaſt of the Natiuitie or new yeeres day doth fall. For if it fall

vpon

vpon the Lords day, the winter will be milde and cleere, the ſpring delightſome, windie, & moiſt; there ſhall be peace; cattell ſhall be at a good price; all maner of good things ſhall abound; olde things ſhall die. If it fall vpon a Munday, the winter ſhall be indifferent, the ſpring in like manner; the ſommer windie and thundering in diuers places; the time of harueſt temperate; wine ſhall abound, but not honie; diuers diſeaſes ſhall raigne; ſome great Princes and Nobles ſhall die. If it fall vpon a Tueſday, winter will be windie, darke and ſnowie; the ſpring cold, drie and moiſt; the ſommer windie and moiſt; Autumne verie inconſtant; women ſhall die; there will bee great danger to ſuch as are vpon the ſea; vprores will happen betweene the people and their ſuperiours; ſome fruits will be deere. If it fall vpon a wedneſday, winter will be verie ſharpe; the ſpring verie bad; a good ſommer and a cold and moiſt harueſt; wine, corne, and fruits will abound, if they be not ſpoiled by men of warre; yoong folke and children ſhall die, and cattell likewiſe. If it fall on a Thurſday, the winter will be good, windie, and rainie; the ſpring windie; ſommer good and rainie; autumne moiſt; wine, corne, and fruits wil abound; great Princes will die; there ſhall be peace betwixt cities and their Princes. If it fall on Friday, winter will be conſtant; the ſpring good; ſommer inconſtant; and harueſt time indifferent; the good things of the earth will abound; ſheepe will die in ſome countries; there will raigne paines in the eies, and there will ſome tumults and vprores be made. If it fall vpon a Satturday, the winter will be darke, cloudie, and ſharpe; the ſpring ſomewhat windie; the ſommer moderate, and harueſt time drie; the fruits of the earth will not be plentifull; fiſhes will be in great plentie; there will fall out perils vpon the waters; great ſpoiles by wilfull fires will be committed, and wars will raigne.

In like manner according to the diſpoſition of the ſunne and the twelue daies of the feaſt of the natiuitie, he ſhall be able to foretell the inclinations of yeeres; for if the ſunne be altogether beautifull and cleere vpon Chriſts day, the yeere will be good and peaceable; if vpon the ſecond day, gold and wheate will fall of their former valew and price; if vpon the thirde day, Churchmen will fall at variance; if vpon the fourth day, yoong folke will haue troubles; if vpon the fifth day, all goods will increaſe; if vpon the ſixt day, gardens will prooue fruitfull; if vpon the ſeauenth day, there will be great dearth and famine; if vpon the eight, abundance of fiſh; if vpon the ninth, a good ſeaſon for cattell; if vpon the tenth, great heauines of times; if vpon the eleuenth, great foggie miſtes and mortalitie; if vpon the twelfth, vprores and warfare. Wherefore if the ſunne ſhine in thoſe twelue daies, and that continually, all theſe things will come to paſſe.

He ſhall likewiſe prognoſticate and foreknowe the diſpoſition of

the whole yeere, by the disposition of S. *Paules* day, which is the twentie fifth of Ianuarie : for if this day be faire, cleere and smiling, it promiseth great abundance of the fruits of the earth : if vpon this day there be any misles, there will ensue great death of cattell : if it raine or snow, we are to feare a great dearth : if it be windie, there will bee warres and seditions among the people.

The knowledge of the disposition of euery moneth.

He shall know how euery moneth in the yeere will be inclined, by obseruing the inclination of the day of the natiuitie and of the festiual daies following: in such sort as looke what weather it is vpon the day of the Natiuitie, such weather will follow in the moneth of Ianuarie, and so consequently the other monethes will carrie themselues, and answere suitably to the other of the twelue festiuall daies.

A forward or a backward yeere.

He shall bee carefull to foresee whether the yeere will fall out forward or backward: if after vintage there fall raine, especially before the end of the moneth of October, the yeere will prooue forward : if it raine about the end of October, it will prooue indifferent : but if it begin to raine shortly after in Nouember, the yeere will prooue backward : and then it will behooue the good farmer to sowe in greater quantitie, for that before the mid time, much of the corne doth rot and spoile in the earth.

A good or bad yeere.

He shall not be ignorant of the tokens foreshewing whether it will be a good or a bad yeere, and proportionably to this he shall learne to vnderstand how harueſt hath beene gathered rounde about him and in neere adioyning countries, whither their countrie corne hath beene accustomed to be carried : as also in such countries as from whence they haue beene wont to haue some brought, to the end that by buying before hand or euer that scarcitie pinch, he may either by keeping of his store, or else by husbanding of it sparingly and thriftily, reserue such corne as he shall know to be likely to prooue deere, and that not only for the maintenance of his familie and his seede, but also to the ende he may take his best time and place to sell his owne for his most profit.

Signes foretokening fruitfulnes.

He shall know a fruitfull and fertile yeere, if he see in the oke apples, commonly called gals, a flie ingendred and bred : if the harueſt time be beautifull and faire weather, the spring reasonably hot : if there fall good store of snow in his due time and season : if trees beare but small store of fruits: if riuers & floods doe nourish but small store of fish : if the broome be fruitfull and abundant in bringing forth of flowers : if the walnut-tree from his beginning to flourish, be more laden with flowers for the bearing of fruites, then with leaues : if the masticke-tree doe bring forth his fruit well liking and fed: if the wilde onion or sea onion called *Squilla*, cast foorth a faire and great flower, which withereth not so speedily.

A barren yeere.

On the contrarie he shall feare a barren yeere, when he shall see

that

that the nut of the gall ſhall bring foorth a ſpider: if any comet appeere in the firmament: if the ſpring and ſommer be too moiſt; if the earth and aire be full of ſpiders, wormes, woodſeere and other ſuch like vermine: if the wallnut tree haue moe leaues then nuts: if the deaw and froſt come in vnſeaſonable times: if birds in great flockes doe leaue and forſake the Iſlands and woods, and betake themſelues to the plaine fieldes, townes and villages: if the crow continue not to abide in the woods: if there fall out great ſtore of beanes and likewiſe of fruits and fiſhes. If there happen any great eclipſe of the Sunne at ſuch time as the corne is in flower; for the eares thereof will haue no corne in them, which alſo falleth out in like maner, when the ſeede which is ſowne, is either a leane, a light, or a halfe rotten corne.

Tokens foreſhewing corne to be good cheap or deare.

He ſhall know whether corne will be deere or cheape for the preſent yeere, and in which of the monethes thereof. Let him chooſe out at aduenture twelue graines of corne the firſt day of Ianuarie, let him make cleane the fire harth and kindle a fire thereupon; afterward let him call ſome boy or girle of his neighbours, or of his owne houſe; let him commaund the partie to put one of theſe graines of corne vpon the harth made very cleane and hot; then he ſhall marke if the ſaide graine doe leape or lie ſtill: if it leape a little, then corne ſhall be reaſonably cheape; but if it leape very much, it ſhall be very cheape: if it leape toward the fire more or leſſe, corne ſhalbe more or leſſe deere: if it lie ſtill and leape not, then corne ſhall ſtand at one price for this firſt moneth: he ſhall doe in like manner with the ſecond graine for the moneth of Februarie, and ſo in order with the reſt of the graines for the reſt of the monethes as they follow. Furthermore for the better preſeruation of himſelfe and his familie from diſeaſes as well contagious as others cauſed of diſtemperature and ill diſpoſition of the aire, it will be good that he ſhould haue ſome foreſight to diſcerne what diſeaſes in likelihood may enſue. But the moſt certaine and ſure token is, if at the end of the ſpring or during the ſommer it raine ordinarily, and that in great abundance, and accompanied with great and vehement heat without any winde at all: or if the ſoutherne winde blowe, or that as yet there haue not fallen any raine at all, if the aire be full of fogs and miſtes: if the ſunne endure any eclipſe, or if there be ſeene in the aire any comets or firie flames: if the trees doe ſeeme to flame and burne: if that the time of harueſt and winter bee verie foggie and yet notwithſtanding rainie: if bread ſet abroad in the open aire doe in the night time drawe moiſture vnto it and become mouldie: if dogs run mad: if that it be found that wolues run into ſome townes being mad: if birds forſake their neſts, egges and young ones: if there be a great death of ſheepe: if that fennes be full of frogs: if wals be full of ſowes and ſuch other like vermine: if vpon the way a man cannot but meete with wormes, liſards, ſerpents and moules

Signes foretokening a ſickly or ſound yeere.

crept out of their holes and lurking places: if birdes fall dead out of the aire: if in the nut of a gall be found a spider: if yongue and old folke be troubled with the pockes and measles: if women with childe be brought in bed before their time: if in sommer after raine there be to be seene in the fennes great store of frogs hauing pale or ash coloured backes and yellow bellies: if grounds planted with roses or with violets, doe bring foorth and yeelde flowers in the beginning of Autumne.

He shall prognosticate great death of cattell, if he see that the leaues of the elme tree and peach tree doe fall before their time. And I would that all men vnderstood that I haue set downe these things without any minde to derogate from the good and almightie prouidence of God, who bindeth not himselfe to the orders and lawes whereunto he hath bound and tied nature: but altereth the same, euen according to his owne good will and pleasure, as being Creator of all things, and as vnto whom all honour appertaineth.

The ninth Chapter.

That the farmer must haue the knowledge of the motions aswell of the Moone as of the Sunne, and of the power and operations of them both in matters of husbandrie.

NOtwithstanding that the consideration and obseruation of the motions, faculties, and effects of the starres, and chiefly of the two great and admirable fires of the whole world (called of God by the mouth of *Moyses*, lights) that is to say, the Sunne and the Moone, doeth appertaine rather vnto some excellent Astrologian, then to a simple husbandman: notwithstanding forasmuch as the greatest part of matters of husbandrie, as beasts, plants, trees, and hearbes doe take their generation, nourishment, grouth and perfect consummation, by the liuely inspiration, action, casting foorth of beames and woonderfull moouings of these two organes and principall instruments of all the worlde: it is very expedient that the farmer and gouernour of a husbandrie should haue that knowledge gotten by long experience, which teacheth their vertues and powers in matters of husbandrie, to the end he may handle, manage, and order the same, according to the motions of those two great gouerners.

The Sunne and the Moone great lights.

Of the Moone.

So then to speake of the Moone in the first place (which by reason of being neerest vnto vs of all the rest of the planets and celestiall bodies, doth worke her effect in like manner vpon vs as concerning our bodies, aswell as vpon the rest of earthly things) it is most certaine that in lesse then in one moneth it runneth all that course and way which the Sunne is in running all the yeere long: and that it hath no

light of it selfe, but that it taketh and receiueth it all from the Sunne, giuing his reuerberations and reflexions vnto the earth, with more vehemencie when it is further off from the Sunne: as on the contrarie looke how much it commeth the neerer vnto her coniunction with it, so much the lesse light and force doth it impart vnto the earth. Heereupon it commeth that we say that the Moone increaseth or decreaseth, not that indeede it doth increase or decrease (saue then when it is in his eclipse) being continually inlightned by the Sunne: but this his brightnes onely which it casteth and spreadeth vpon the whole face of the earth, doth onely increase and decrease. And this shining brightnes according as it is longer or lesser time, hath likewise more or lesse force to mooue the humours of natural things to worke their effects. For by how much the more that this light increaseth, by so much the more doth the moisture thereof spread and communicate it selfe abundantly throughout the outward parts: as on the contrarie by how much it waneth and groweth lesse, by so much the naturall humiditie and moisture doth withdraw and betaketh it selfe vnto the inward parts. This is the cause why men call the Moone the mother nurse, regent, and gouernesse of all such humidities as are in earthly bodies.

The cause of the growth and wane of the Moone.

Wherefore to speake first of fielde-beasts, the well aduised farmer shall not kill at any time whatsoeuer his porkes, muttons, beeues, kine, or other beastes, of the flesh whereof hee would make his houshold prouision for the sustenance of his family, in the wane of the Moone. For such flesh as is killed in the decrease of the Moone, falleth away and impaireth euerie day, and also craueth much fire and time to make it ready withall: neither ought any man to maruaile or stande astonished at this, if he consider well that a sausage or other such like kinde of meate doth grow lesse by a quarter when they are boiled. Neither shall he make accompt of or buy any horse-flesh or other which was foled or brought foorth in the decrease and olde age of the Moone, for that they are more weake and faint then the rest; moreouer they come to no growth, neither is their flesh of sufficient waight when they be killed. He shall neuer fish his pooles, fish ponds, ditches, or waters with salt fish, in the decay of the Moone: for both fish and other beasts of the water, especially they which are couered with shels or thicke scales, as craiefishes, crabs, oisters, muscles and such like are found verie much impaired in their substance and leane in the olde age and wane of the Moone: and contrariwise grosse, fat, and full, when she is in her force and full. The faulckner shall choose rather the full moone to flie in then the wane, for that hawkes and all birdes of the praie, are a great deale more nimble, sharpe, and catching about the full Moone then in any other time. The horse and beast subiect to any maladie of the eies, is better at

To slaughter cattell in the new of the Moone.

ease

ease in the decrease then in the increase or full of the Moone. He shall make prouision of fats or of the marrowes of the bones of mutton, hart, beefe, and others, if he haue neede in the full of the Moone, not in the declining. Hee shall geld his bore pigs, rams, bull-calues, or bulkins and male-goates, when the Moone decreaseth: he shall set egges vnder hens or other foule in the new of the Moone, and principally in the first quarter.

Fruit-trees and others.

As for trees and other plants, the wise and discreet farmer will plant his fruit trees and others in the new of the Moone, and yet not before the first quarter. At the same time he will haue regard to cut downe and loppe woode for his fewell: but contrariwise such as he mindes to keepe for to build withall, when the Moone decreaseth being sure that all matter (be it to builde house, presses, bridges, and other things) being cut downe in the decrease of the Moone, lasteth a long time, and is found marueilous good, and yet better when it is cut downe rather at euening then in the morning, which thing may also be applied to hewen stone and milstones, when they be cut out of their quarries and pits. He shal plant his vine in the increase of the Moone; when it is fower or fiue daies old: he shall cut the leane vines, & such as are planted in a bad soile, in the increase likewise of the Moone, but those which are more fat in the going away of the Moone, seeing that thus they wil bring foorth more grapes then if they were cut in the increase, inasmuch as then the moone staying vpō them to soften them & make them fat, cannot chuse but cause abundance of clusters and leaues: but cutting them the Moone being old, the wood becōmeth bound, and applieth it selfe onely to bring foorth great store of fruite.

To cleanse trees.

He shall clense, prune, and cut at the foot, fruit-trees toward the latter end of the Moone, for so they will become better laden with fruit: he shall make his nurseries of kernels the Moone being ouer the earth.

To gather fruites. Grapes.

As for fruits, he shall gather apples, peares, and other fruits, as also his grapes in the decrease of the Moone, because thereby the wines will be the better & longer kept, which otherwise would be in danger to sowre & rot in the moneth of March following, being the time that men are woont to cut their vines. And which is more, he shall gather and carie into his house whatsoeuer he would haue to indure and last long, at such time as the Moone shall decrease. He shall sow his corne, as wheate and other graine, he shall weede, fanne, searce, and gather togither his corne vnder a locke, he shall grinde his corne the better to keepe it in flowre, in the end and old of the Moone: it is very true that the bread increaseth and profiteth more, if it be ground, the Moone increasing and being new. He shall mowe and cut downe his corne with sythe, the Moone wasting. He shall pull line, and pulse at the same time: and yet indeed all pulse gathered or reaped in the growth of the moone are of easier digestion.

To sow corne. To winnow or fanne, to searce and laie vp corne vnder locke. To grinde corne.

As

As concerning hearbes he ſhall ſowe them the moone being new, and gather them whiles the moone increaſeth in her light, as being then of farre greater force, then in the waſte and wane: at the ſame time he ſhall gather cowcumbers, gourds, mellons, citruls, pompions, and all rootes which grow in the head, whether they be leekes, garlicke, radiſhes, turneps, lillies, ſaffron or ſuch like; except onions which muſt be dealt withall cleane contrarie: for they become a great deale more groſſe and better fed in the declining then in the augmenting or full of the moone, during which time they haue no ſuch force of greatnes of bodie; notwithſtanding if they be ſowen or tranſplanted in the wane of the moone, and towards the latter end, they are a great deale more ſtrong, ſharpe, and biting, then if it were in the growth or full of the moone. *Onions ſowen in the wane.*

Furthermore he ſhall cut downe his medowes for the feeding of his cattell, when the moone is new, he ſhall dung his groundes and make them fat in the increaſe of the ſame, in as much as the moone giueth no leſſe power vnto the dung to ſoften the earth, then it doth to trees, and ſeedes to budde, growe, and multiplie euery one in his place, he ſhall water his medowes in the decreaſe of the moone. *To mow medowes.* *To dung them.*

And he ſhall not be content to know what force and efficacie euery quarter of the moone hath vpon beaſts, trees, plants, hearbes, fruits, and other thinges contained in this inferior world; but ſhall alſo be carefull to obſerue what power euery day of the moone hath, not onely vpon beaſt and plants, but alſo in the diſpoſition and gouerning of man, to make his vſe thereof in the time of neceſſitie, and in time & place as occaſion offreth: following ſuch infallible obſeruations, as haue beene long continued, and which our fathers neuer attained vnto, and they be ſuch.

In the firſt day of the moone *Adam* was created: if any man fall ſicke vpon this day, the ſicknes will be long, but the partie ſhall recouer: the dreames which he dreameth in the night ſhall be found ioyfull: the childe that is borne this day ſhall liue long.

In the ſecond day *Eue* was created: it is good to take any voyage vpon this day, either by ſea or land, and the traueller ſhall haue happie ſucceſſe in all the places where he ſhall lodge and ſoiourne: this day is good for the increaſe of poſteritie. It is likewiſe happie and fauourable to ſuch as ſhall haue any ſuits vnto princes, or other great perſonages: likewiſe it will be good to build and ſet vp vpon, as alſo to make gardens, orchards and parkes, to till the earth and ſowe it: a theft or robberie committed this day will not long be vnfound out, for it cannot be concealed: if any one fall ſicke he will be quickly healed: if he dream in the night time, he muſt not reſpect it, for it ſhal come to no effect: the childe borne vpon this day thriueth and groweth iollilie.

In

In the third day *Cain* was borne: vpon this day no man is to enterprise any worke, either in gardning or planting, except that which he purposeth to loose: who so falleth sicke shall vndergoe and beare it with great paine and griefe vnto the ende, but by little and little keeping good order of diet, he shall recouer his health: any dreame dreamed this day or night shall come to naught: likewise the childe then borne shall be of long life.

In the fourth day *Abell* was borne: this is a good day to begin a worke in, to make milles in and to go vpon the water: a fugitiue or runaway, as also a lost or straied beast, shall be quickly found: the partie falling sicke vpon his bed, shall hardly escape it: if the dreame be good it shall come to passe: if on the contrary it be euill, it shall not come to passe: the childe borne this day shall proue a traitour.

In the fifth day *Lamech* was borne: if vpon this day any partie haue committed any thing by hap or accident, and flie for the same, he doth but loose his labour by such flight, for he shall by and by be punished aliue or dead: robberie committed this day shall not bee found out: who so shall fall sicke vpon this day, shall neuer rise again; the dreames dreamed shall be doubtfull: the childe borne shall die very quickly.

In the sixth day *Ebron* was borne; it is good vpon this day to send children to schoole, and to go a hunting: theft or robbery committed this day shall be quickly found out; likewise the sicknesses which shall be taken, shall be soone healed; the dreames which a man shall dreame on that day are not to be disclosed; the childe that shall be borne, shall be of long life.

In the seauenth day *Abel* was slaine by *Cain*; it is good on this day to let bloud, foreseene that the moone be in a fit signe; into what coast or quarter soeuer that a malefactour or theefe doth flie, both he and the theft committed shall be quickly found out: the sicke soone healed: the dreames certaine and true: good to buie swine, and to make foode of all manner of beasts: the childe borne shall be of long life.

The eight day *Methusalem* was borne: it is good for traueilers: the patient taken with a disease, shal languish a long time: the dreames therefore shall proue true: the childe shall not shew anie good signes in the iudgement of Physiognomie,

In the ninth day *Nabuchodonosor* was borne: this saide day is indifferent: the dreames of the night come to passe incontinently; the partie that shall fall sicke will escape, if he die not within eight daies, and therefore shall not languish or beare it mournfully; the childe borne vpon this day, shall be of a long life.

The tenth day *Noe* was borne; all good things done this day shall prosper; the dreames shall be of no effect; who so vpon it

shall

ſhall fall into tribulation and aduerſitie ſhall not neede to feare; for it ſhall not long indure: likewiſe he that falleth ſicke ſhall die within ten daies, if he be not well ſuccoured: the childe borne vpon this day ſhall trauaile many farre coaſtes and countries.

The eleuenth day *Samuell* was borne: it is good to change ones houſe in: a good and ioyfull dreame ſhall fall out to be true, and come to paſſe within a few daies: the partie lying down ſick vpon his bed, ſhall there continue a long time, and yet notwithſtanding hee ſhall eſcape: the childe borne vpon this day ſhall be of a good ſpirit, apt and forward to all good ſciences, and of a long life.

The twelfth day is very dangerous, and therefore we muſt not doe any thing in it, for vpon this day was *Canaan* borne: who ſo ſhall fall ſicke therein, ſhall be in great danger to die within twelue daies: the dreames thereof ſhall be true according to their ſignification: the childe borne this day ſhall be altogether hypocritically inclined.

In the thirteenth day it will be euill to begin any worke: who ſo falleth ſicke vpon that day ſhall continue long languiſhing: the dreames thereof ſhall be accompliſhed within nine daies: the childe borne that day, ſhall liue long.

In the fourteenth day God bleſſed *Noe* & his works: he that falleth ſicke that day, ſhall amend againe quickly: the dreames thereof will be doubtfull: the childe borne that day will be perfect in all things.

The fifteenth day ſhall be indifferent, that is to ſay, neither good nor bad: the ſicke ſhall not die vpon his ſicknes whereinto he fel that day: the dreames thereof will be certaine, and accompliſhed within ten daies: the childe borne thereon ſhall not be ſubiect to women.

In the ſixteenth day *Iacob* was borne: for this cauſe it maketh good to buie and tame horſes, oxen and other cattell: the ſicke ſhall be in great danger of death, if he change not his aire or houſe: dreams ſhall come to paſſe: the child ſhall not liue long.

In the ſeuenteenth day *Sodome* and *Gomorrhe* was deſtroyed: it is ill to attempt and do any thing: phyſicke taken will do no good vnto the patient: the dreames will be verified within three dayes: the childe will not be proſperous in all things.

In the eighteenth day *Iſaac* was borne: it is good to be at leiſure, and to go about buſines: the ſicke ſhall be in danger of death: the dreame ſhall be true: the childe ſhall not trauile farre but he ſhall get great goods.

In the nineteenth day king *Pharaoh* was borne: this day is dangerous, wherefore it will be good to auoid company and drunkerds, and to liue peaceable without dooing any thing: the diſeaſed will ſoone recouer: the dreame will prooue true: the childe will not be malicious or a mocker.

In the twentith day the prophet *Ionas* was borne: this is a good

day

day for the dooing of all things : the diſeaſe will continue long : the dreame true and apparent : the childe which ſhall be borne will be malicious and a mocker.

In the one and twentith day was borne King *Saul* : it is good to reioice and cheere vp ones ſelfe in faire and honeſt apparell : good to buie prouiſion for ſuſtenance : the theft committed will be founde out : the taken ſicke in great danger of his diſeaſe : the dreame vaine and vnprofitable : the childe borne, ſubiect to indure great trauaile.

In the two and twentith *Iob* was borne : it is not good to goe about merchandiſe, nor to enterpriſe or vndertake any charge : the ſicke ſhall be in danger to die of the ſickneſs that he ſhall take this day ; the dreame ſhall be true ; the childe borne ſhall be good and honeſt.

In the three and twentith day was *Beniamin* borne: whatſoeuer a man doth vpon that day, it ſhall turne to his honour ; the diſeaſe ſhall be long, but not mortall ; the dreames falſe ; the childe borne, a diſſembling wretch and ill fauoured.

In the fower and twentith day *Iaphet* was borne : it is an indifferent day, that is to ſay, neither good nor bad; the ſickenes will hold long, but the patient will recouer ; the dreame will be of no effect; the childe that is borne will be milde and courteous, and will loue to make great cheere.

In the fiue and twentith mortalitie entered into Egypt : the ſicke will bee in danger of death, the ſixth day after the beginning of the ſicknes ; the childe that is borne therein ſhall be ſubiect vnto many dangers, perils, and aduerſities

In the ſixe and twentith *Moyſes* deuided the ſea, the ſame day died *Saul* and *Ionathan*, for which cauſe the day is verie dangerous, and not good to doe any thing in; he that falleth ſicke vpon that day, will neuer eſcape ; the dreames will proone true ; the childe borne will not be any man of great proſperitie or pleaſure, that is to ſay, neither poore nor rich.

In the ſeuen and twentith, it is good to take paines in all manner of buſineſſes : the ſicknes will be variable; the dreames will be doubtfull ; the childe borne will be mild and louely.

In the eight and twentith, al good things will be good to be done: the ſicke ſhall be recouered of his ſicknes ; the childe borne ſhall be ſlothfull and negligent.

In the nine and twentith day *Herod* cauſed the children to be ſlaine : this is a diſmall and vnhappie day ; wherefore there muſt nothing be done that day, nor yet vndertaken : the dreames will be very certaine ; the ſicke will turne ſound ; the childe borne will liue and keepe ſocietie in peaceable manner among men.

The

The thirtith and laſt day, is good to doe all things in: the ſicke ſhall be in great danger euen vnto death, but if he be well and carefully looked vnto, hee will recouer; the dreames will be turned into ioy within the ſift day; the childe borne will be ſubtill and deceitfull.

As concerning the Sunne (which is the other inſtrument of the whole world, performing the greateſt part of his actions really and in deed, during the day whereof it is the author, as the Moone doth hers during the night, as being then, when ſhe is in her force and vigour) it by his naturall heat, influence, actions, and caſting foorth of his celeſtiall beames, giueth vnto earthly bodies their forme and vegetatiue life, accompanied with certaine powers and vertues, ſo farre foorth as euerie naturall bodie is capable, and deſerueth or requireth it. Which operations of the Sunne in theſe earthly matters, are wrought and effected by certaine his motions, accompliſhed in the fower quarters of the yeere, which is that time wherein the ſunne diſpatcheth his whole courſe. Wherefore the wiſe and prudent huſbandman ſhall giue heede to the fower quarters of the yeere; which are the ſpring, ſommer, autumne, and winter, to the end, that according to the motion and power of the ſunne in theſe fower quarters, he handle, manage, and gouerne all his affaires of husbandrie: and this is the thing that we will more particularly handle at large in the Chapter following, by the workes that the husbandman muſt do in euery ſeuerall moneth of the yeere.

The tenth Chapter.

The particular workes that a husbandman muſt be carefull to doe euerie moneth in the yeere.

FVrthermore, to the end that his people may not liue idle, and that they may not looſe one ſmall minute of time; which being imploied about ſome one or other worke, he ſhall diſpoſe of his workes ſo, as that they may euerie one haue his certaine time, and he ſhall know at his fingers endes what things is to be done euerie moneth and time of the yeere.

In the moneth of Ianuarie chiefly toward the end, he ſhall cut downe his wood, which he appointeth for building, or other worke, when the moone is vnder the earth: for the brightnes of the moone maketh the wood more tender, and the wood which ſhall be cut at ſuch time, will indure a long time without rotting. He ſhall dung the fruit-trees, not letting the dung touch their roots. He ſhall graft all ſuch great and little trees which bud betimes, as roſe-trees, damaske plumbe-trees, abrecocke-trees, almond-trees, and cherrie-trees. He ſhall digge the earth for the caſting in of nuts, almonds, and the ker-

Ianuarie.

nels

nels of abrecockes, peaches, and plums, and such others, in grounds that are cold and moist in the two first quarters of the moone. He shall cut his vine in faire and beautifull weather. He shall plough the grounds that are drie, light, whit, leane, sandie, full of rootes and great herbes, and which were not eared in October. He shall giue the second eare vnto those his grounds that are most barren, and scatter vpon them the chaffe of beanes, wheat or barely. Hee shall cutte downe the boughes of the willowes for tailes for vines and stakes for hedges. He shall prepare props and thicke square lathes to vnderset his vines. He shall cut and take away the superfluous boughes of the trees, the moone decreasing. He shall turne the vppermost of all the dung made since S. *Martins* day vndermost, and contrarily to the ende it may be well rotten, when he shall carrie it out to spread it vpon his field and medow. He shall furnish afresh or make new his carts, tumbrels, ploughes, & other his instruments necessarie for his husbandrie. He shall make prouisions of verie sharpe iron tooles to cut and cleanse his trees and vines. Aboue all things, let them beware of sowing, because the earth as then is to open, heauie, full of vapours, and like vnto wooll not well carded.

Februarie. In Februarie in the new moone he shall transplant vines of two or three yeere, which shall now alreadie haue taken good roote, but hee shall not touch them of one yeere which will not bee remooued, because of the small strength which they haue as yet got. He shall carrie dung out into his corne fields, vineyardes, medowes and gardens. He shall cast trenches for the planting of new vines. He shall cut the rootes of the vines and set square lathes or props for the defending of them. He shall prune and clense the trees of whatsoeuer is superfluous. He shall cleanse them from wormes, filthines, and worme eatings, canker, and rottennes, which are to be found in the drie leaues. He shall make readie his garden grounds to sow and set therein all manner of hearbs. He shall giue the earth her second earing for the receiuing of beanes, barley, oates, hempe, millet, and such other seede of small pulse. He shall ouerlooke his vines, especially those which he knoweth to be weake and tender. He shall repaire the hedges of his gardens. He shall plant woods for timber trees and talwood. He shall also plant the slips of oliue-trees, pomegranate-trees, quince-trees, fig-trees, poplar-trees, willow-trees, elme-trees, osiers, and others, as well fruit trees as wilde ones which haue rootes. He shall cleanse the doue-house, hen-house, and place where the peacokes and geese make their haunt: because that these cattell in the ende of this moneth begin to be hot and to tread. He shall ouerlooke his warren to stoare it anew, and to handsome vp the earths. He shall buy Bees; he shall make cleane their hiues verie carefully and kill their kings. He shall buye falcons, sparrow-hawkes,

and

and other birdes of the praie, which he ſhall put into Mue, in the end of this moneth.

In March, euen in the beginning of it, he ſhall ſow lyne, woade (if it were not ſowne in Februarie) oates, barley, millet, pannick, hempe, peaſon, lentils, tare euerlaſting, lupines, ſmall kindes of corne, as the fetch faſels, & other ſuch like bitter kindes of ſmal pulſe. He ſhall giue a ſecõd earder vnto new plowed fallowes, which are now by this time wel amended & dunged, ſo as that he may make them readie to ſow: he ſhall weede his corne: he ſhall get grifes to graft, when the ſappe beginneth to climbe the trees, and before that they put foorth any buds. He ſhall plant theſe fruits, great nuts, cheſnuts, almonds, ſmall nuts, filberds, and the ſtones of olives, & aprecockes, & diuers other fruites. He ſhall ſowe diuers nourceries with the kernels of apples, peares, mulberies, and ſuch other like fruits: he ſhall plant ſuch herbes as are ſet lowe and cloſe by the ground, as the ſlips of artichokes, thiſtles neceſſarie for vſe, ſage, lauander, roſemarie, ſtrawberrie, gooſeberrie-buſh, roſes, lillies, citruls, cucumers, millions & pompions. He ſhall trim vp his gardens as wel for the kitchin or commoditie, as that which is drawne into quarters, or for pleaſure, and ſhall ſowe therein whatſoeuer neceſſarie ſeedes: he ſhall cut and vncouer the rootes of vines and fruit trees, to the end they may bring foorth more fruit: he ſhall put dung to the rootes of the trees: he ſhall gather vp the loppings to make fewell of. *March.*

In Aprill about S. *George* his day, you ſhall ſet abroad your citron and orenge trees, as alſo all ſuch other trees as you had kept within houſe from S. *Martins* day, from which he ſhall remooue the earth from foote to foote, taking from them ſuch roots as are put forth towards the vppermoſt part of the earth, as alſo al ſuperfluous boughes, not ſuffering any one branch to exceede another either in bredth or height. He ſhall plant, if he haue not alreadie done it, olive trees, pomegranat-trees, citron-trees, and mulberie-trees, and ſhall prune them carefully. He ſhall graft the fig tree, cheſnut-tree, cherrie-tree and orenge-tree. He ſhall cut the new vine, for at this time it endureth beſt to be cut. He ſhall be carefull to feede his pigeons, becauſe at this time they finde but little in the fields. He ſhall put horſe to his mares, the hee-aſſe to the ſhee-aſſe, and rams to the ewes: he ſhall make cleane the hiues of the honie flies, and ſhall kill the butterflies, which abound when Mallowes are in flower. *April.*

In May he ſhall water the trees that are newly planted, he ſhall ſheare his ſheepe, fill vp his wines, gather great ſtore of butter and make much cheeſe, geld his calues, & begin to looke to his bees and ſilke wormes, of which he ſhall gather together a great number: he ſhall weede his corne, caſt the earth off his vines the ſecond time, vncouering and freeing their rootes from the earth about them, to the *May.*

end that the heat may not hurt them, he shal take away all the greene branches and tender boughes which beare no fruit, he shall crop the ouer ranke boughes of trees, he shall graft such oliue-trees, as must be grafted in the bud.

Iune. In Iune he shal make ready his threshing floor, & cause it to be thorowly cleansed of straw, durt & dust: he shall cut downe his medowes, mowe his barely, crop his vines, thresh his corne to sow in seede time.

Iulie. In Iulie he shall mowe his wheate and other graine vsed to make pottage of, he shall graft in the bud: he shall gather from apple-trees and peare-trees the faulty apples & peares, and those which do ouercharge the trees: he shall dig his vines againe the second time, and plucke vp from them the grasse called dogs tooth: he shal lay eeuen and fill vp the earth where it is any where cleft or broken, to the end that the Sunne may not burne before hand the vine: hee shall cut downe such wood as shall serue for his fewell all the yeere long.

August. In August he shall pull his line and hempe: gather such fruites from off the trees, as he meaneth to preserue: he shall take away the leaues from about such grapes as are slowe and backward, to the end they may receiue and reape the more heate from the sunne: he shall make his verinice: he shall dig the earth to make wels, or to finde the heads of fountaines if he haue neede: he shall thinke vppon making readie his wine vessels, and other things necessarie for his vintage.

September. In September he shall giue his land that commeth to be tilled againe, after it hath beene fallowe the last earder: he shall sowe his wheate, malling, rie, and such like corne: he shall gather his vintage: beat downe nuts: cut downe late medow grounds, to haue the after crop: he shall gather stubble for the thatching of his house, and for fewell to the ouen all the yeere: he shall cut away the branches of madder, and gather the seed to sowe in the beginning of the March following: he shall gather the leaues of woade, and order them in such sort, as that they may be made vp into bals, and he shall cause them to be dried in the Sunne, or at a fire not very hot: he shall cut downe rice and millet.

October. In October he shall make his wines and turne them into vessels: he shal bestow his orenge, citron, & pomegranat-trees, in some couered place, to auoide the danger of the imminent cold: he shall make his honie and waxe, and driue the old bees.

November. In Nouember he shall couch his wines in his cellar: he shall gather acornes to feed swine: he shall gather chesnuts small and great, and such garden-fruits as will keepe: he shall take radish out of the earth, taking off their leaues and putting them vnder the sand, to keepe them from the frost: hee shall lay bare the rootes of artichokes, and couer them againe very well, that the frost may not perish them: he shall make oiles, he shall make hiues for bees, panniers,

dung

dung pots, and baskets of osier: he shall cut willowes for to make frames to beare vp vines, and shall binde the vines, and draw the climing poles from the vines.

In December he shall oftentimes visite his fields, thereby to let out the water, which may stande in them after great raine: he shall cause water to run through the old medowes, and dung them if neede be: he shall make prouision of dung to manure his fallowes that are broken vp and tild: he shall couer with dung the rootes of the trees and herbes which he intendeth to keepe vnto the spring: he shall cut off the boughes and heads of willowes, poplars, saplings, and other trees, to the end that their boughes may more speedily put foorth and grow so soone as winter shall be past: he shal cut downe his wood as well to build withall, as to make his fire with: he shall make ready his nets to catch birds, and to beset the hares, when as the fields shall be icie or couered with snowe, or ouerflowne with waters in such sort, as that a man can doe no worke in them. He shall also occupie himselfe (as long as he pleaseth) in making a thousand pretie instruments and necessarie things of woode, as are platters, trenchers, spindles, bathing tubs, dishes and other things requisite for houshold store: as also harrowes, rakes, and handles for these tooles: he shall repaire his teames, yokes, ploughes and all other instruments necessarie for the fitting and garnishing of cattell going to cart or plough, to the end that all may be in good order, when they are to goe to labour: he shal also make prouision of spades, shouels, pickaxes, peeles, hatchets, wedges, sawes, and other furniture fit for a countrie house store. *December.*

The eleuenth Chapter.

The condition and state of a huswife.

I Doe not finde the state or place of a huswife or dairie woman to be of lesse care and diligence, than the office of her husband, vnderstood alwaies that the woman is acquited of field matters, in as much as shee is tied to matters within the house and base court (the horses excepted) as the husband is tied to doe what concerneth him, euen all the businesses of the field. Likewise according to our custom of *France*, countrey women looke vnto the things necessarie and requisite about kine, calues, hogs, pigs, pigeons, geese, ducks, peacocks, hennes, feasants, and other sorts of beastes, as well for the feeding of them as for the milking of them: making of butter & cheese: & the keeping of lard to dresse the laboring men their victuals withal. Yea furthermore they haue the charge of the ouen and cellar; and we leaue the handling of hempe vnto them likewise; as also the care of making webs, of looking to the clipping of sheepe, of keeping their fleeces, of spinning and combing of wooll to make cloth to cloath the

family: of ordering of the kitchin garden: and keeping of the fruites' herbes, rootes, and seedes: and moreouer of watching and attending the bees. It is true that the buying and selling of cattell belongeth vnto the man, as also the disposing and laying out of money, together with the hiring and paying of seruants wages. But the surplusage to be imploied and laid out in pettie matters, as in linnens, cloathes for the houshold, and all necessaries of houshold furniture, that of a certainty belongeth vnto the woman. I meane also that she must bee such a one as is obedient vnto God & to her husband, giuen to store vp, to lay vp and keepe things sure vnder locke and key, painefull, peaceable, not louing to stirre from home, milde vnto such as are vnder her when there is neede, and sharpe and seuere when occasion requireth, not contentious, full of wordes, toyish, tatling: nor drowsie headed. Let her dispose of her stuffe and implements vnder her hand in such sort, as that euery thing may haue his certaine place, and that in good order, to the end that when they be to be vsed, they may be found and easily come by and deliuered. Let her alwaies haue her eie vpon her maides, and let her be alwaies first at worke, and last from it, the first vp, and the last in bed: let her not suffer to be lost or purloined, no not the least trifle that is: let her not grumble at any time for any seruice done to the Lord of the farme; for the valew of the least crum of bread denied, or vnwillingly granted or giuen vnto him or his, may loose the quantity of a whole loafe afterward: let her not trouble her braine with the reports and speeches of others, but let her acquaint her husband with them in good sort and manner. Let her gratifie her neighbours willingly, neuer attempting to inueigle or draw away any of their men seruants or maids from them, neither let her keepe company with them, except when she may do them good, or helpe them, or when she maketh some mariage, or assemblies of great company. Let her not suffer her daughters to gad and wander abroad vpon the Sabbath, except they be in such company as is faithfull, or that she her selfe be present with them. Let her compell her sonnes to be foremost at worke, and let her shew them the example of their father, that this may be as a double spurre vnto the men seruants. Let her not endure them to vtter or speake any vnchast word, oath, or blasphemie in her house: and let her cause tale bearers to be silent, and not to trouble themselues with other folkes matters. Let her keepe close vp her stubble and lopping of trees for fuell for the ouen: let her not suffer the stalkes of her beanes, peason, fetches, thistles, danewoort, the refuse of pressed things & other vnprofitable herbs to be lost, for in winter they being burnt into ashes, will affoord prouision to lay buckes withall, or else be sold by little and little vnto the towne. Let her giue good account vnto the Mistresse or Lord, of the egges and yoong ones, as well of birds as of other beasts. Let her

her be skilfull in naturall phyſicke, for the benefite of her owne folke and others when they ſhall fall out to be ill: and ſo in like manner in things good for kine, ſwine, and fowles: for to haue a phyſition alwaies when there is not very vrgent occaſion and great neceſſitie, is not for the profite of the houſe. Let her keepe all them of her houſe in friendly good will one toward another, not ſuffring them to beare malice one againſt another. Let her gouerne her bread ſo well, as that no one be ſuffred to vſe it otherwiſe then in temperate ſort: and in the time of dearth, let her cauſe to be ground amongſt her corne, beanes, peaſe, fetches or ſarraſins corne in ſome ſmall quantitie, for this mingling of theſe flowers, raiſeth the paſte, maketh the bread light, and to be of a greater bulke. At the ſame time ſhe ſhall reſerue the droſſe of the grapes ſhe preſſeth, affoording them ſome litle corner, for the imploying of them in the defraying of ſome part of charge for the ſeruants drinke, that ſo the wine may ſerue for her husband, and extraordinarie commers. But the naturall remedies which ſhe ſhall acquaint herſelfe withall for the ſuccour of her folke in their ſickneſſes, may be thoſe or ſuch as thoſe are which I ſhall ſet downe by writing in manner of a countrie diſpenſatorie, leauing the other more exquiſite remedies to be vſed by the profeſſed phyſitions of the great townes and cities.

To vſe bread temperately.

Prouiſion for drinke.

The twelfth Chapter.

The remedies which a good huſwife muſt be acquainted withall, for to helpe her people when they be ſicke.

The plague.

FIrſt for the plague ſhe ſhall make a diſtilled water of the herbe called *Regina prati*, after that ſhee hath cauſed the ſame to bee ſteept in white wine: or elſe ſhe ſhall cauſe to lie to ſteepe in the iuyce of cytrons a peece of golde or the powder or leaues thereof, for the ſpace of 24. howres, and afterward mixe that iuice with white wine, and the powder or decoction of the roote of Angelica, and ſo giue it to drinke to the infected: or elſe let her take two old walnuts, one figge, ten leaues of Rue, one graine of ſalt, poune and temper them altogether, and roſt them vnder the aſhes, and afterward being ſprinkled with wine, let her giue them to be eaten: or elſe let her take one head of garlicke, twentie leaues of rue, as many of clarey, and poune them altogether with white wine, and a little aqua-vitæ: afterward let her ſtraine them out, and giue the partie to drinke therof a good draught: the water of Naphe drunke to the quantitie of ſixe ounces, cauſeth the malignitie of the plague to breake foorth by ſweates: the iuce of marigolds, ſcabious, and of the flowers of betonie do the like. Applie vpon the ſwelling a loafe very hot, or a hen

Naphe.

cut through the midſt or a white onion made hollow on the roote ſide, and filled vp againe with good ſtrong treacle or mithridate ſoftned with the iuice of citrons, it hauing all this within it and being well ſtopped, muſt be roſted vnder the aſhes till it be rotten, after that poune it well in a mortar and applie it; or elſe if it be ſtrained, the iuice drunke, and the droſſie part applied to the place, you ſhall perceiue the like effect.

A continuall feauer.

For a continuall feauer (which is otherwiſe called the hote diſeaſe) ſhe ſhall apply vpon either wreſt of both the armes, the iuice of the ſtinging nettle mixed with the ointment of poplar buds: or two ſprings of new laid egges, ſoot taken off from the hub of the chimney, and well beaten together, and mixt with ſalt and ſtrong vineger, let her binde the whole vnto the parties wreſtes with a linnen cloth: or elſe in place of this ſhe ſhall take away the hart of an onion, and fill it with mithridate, and applie it faſt bound vpon the wreſt of the right arme; or elſe ſhe ſhall take the hart of a water frogge, and applie it vpon the heart or backe bone of the ſicke partie: or elſe ſhe ſhall applie vpon the region of the liuer, or vnto the ſoles of the feete quicke tenches. Many for this cauſe do ſtampe the ſmall ſorrell, and make a drinke for the great heate thereof, as alſo make a cataplaſme thereof to applie to the wreſts of the ſicke partie. Others do the like with the water which they ſtraine out of a great citrull. Others cauſe to ſteepe in water the whole ſeede of fleawoort for the ſpace of a night, and miniſter of this water with a little ſugar to the ſicke partie to drinke.

A quartaine ague.

For a quartaine ague take of ſmall ſage, or for want of it, the other hyſſope, wormewoode, parſly, mintes, mugwoort, white ſpotted trefoile, ſtampe them all together with the ſpring of an egge, and the groſeſt ſoote that you ſhall finde cleauing to the chimney, and of the ſtrongeſt vineger that may bee founde; infuſe them altogether, and make thereof cataplaſmes fit to be applied to the wreſts of the hands. To the ſame purpoſe ſteepe the crums of two white loaues as they come from the ouen, in a quart of vineger, afterward diſtill the ſame by a lembecke, and giue thereof a ſmal draught to the ſicke party to drinke, about ſome two houres before the fit come. Some hould it alſo for a ſingular remedie, to take the iuice of the ſemall white mullein, before it put foorth his ſtalke, preſſed or drawne foorth with white wine, and drunke a ſmall ſpace before the fit: the like effect hath the iuice of folefoot; the decoction of the leaues and rootes of veruaine boiled in white wine; the decoction of calamint, peniroyall, organie, burrage, bugloſſe, langue-de-beuf; the rinde of the roote of tamariske, aſh-tree, betonie, tyme, agrimonie, and the rootes of ſperage, all boiled in white wine: the iuice of wormwood and rue powred from their ſetlings and drunke before the fit: the iuice of plantaine drunke with honied water. Some doe make

great

great account of the powder of the roote of Asarum (otherwise called Cabaret) dried in the Sunne or in the ouen, and taken in the weight of a French crowne with white wine, halfe a quarter of an hower before the fit. Furthermore, the liniment made with mithridate or the oile of scorpions, applied to the ridge of the backes, soles of the feete, palmes of the hands, brow & temples, some small time before the fit: the very same vertue hath the oiles of baies mixed with *aqua vitæ*: som townsmen do vse this superstitious rite against such maner of agues: that is to say, they eate nine daies together being fasting the leaues of sage; the first day nine, the second eight, and so consequently they diminish euery day a leafe vntill the last of the said nine daies: and the confident persuasion that they haue of this medicine doth cure them. Some finde it verie singular in a quartaine ague, after purging to drinke white wine wherein there hath beene sage steeped all night: if you eat before the fit a head of garlike pilled, you shall scape the fit of shiuering cold: if you drinke one or two ounces of the iuices of the roote of elder stamped and strained, some small time before the fit, and take the same againe two or three times, you shall loose your ague. The distilled water of the roots of sea holly: or else take a dram of myrrhe in powder and drinke it with malmesey an hower before the fit. The distilled water or decoction of *Carduus benedictus* and taken before the fitte: pils made of myrrhe and of treacle as big as a cichpease taken an hower before the fit.

Thirst.

For the thirst of an ague, let him rowle to and fro vpon his tongue the three cornered stone found in the heads of carpes: or the leaues of round sorrell, or a piece of siluer or gold; or a snaile stone; or a piece of crystall oftentimes dipt in water: or the leaues of purslaine, or of houseleeke; or the husked seeds of cucumers.

A Tertian ague.

For a Tertian ague, steepe in white wine the brused roote of herbe patience for the space of three or fower howers, afterwarde straine it, and reserue about a pretie draught to giue the sicke to drinke, an hower or two before his fit: or else doe the like with the rootes of plantaine steept in equall quantitie of wine and water: or take a prettie draught of the iuice of plantaine, or of purslaine, or of pimpernell, and drinke them a verie little while before the fit: or else drinke with wine euerie day six leaues of cinquefoile, that is to say, three in the morning, and three at the euening: or the iuice of smallage, of sage, and good strong vineger, of euerie one an ounce, three howers before the fit. The most soueraigne remedie that some men do find for it, is to drinke fasting fiue howers before the fit, two ounces of the iuice of pomegranats, and presently after to lay to the wrests, temples, and soles of the feete, small pilles of the bignes of a pease, made of an ounce of the ointment of Populeon, and two drams of spiders webs, and there to leaue them vntill such time, as that the hower

and feare of the fitte be past: or elſe a cataplaſme made of ſage, rue, greeke nettle, gathered before ſunne-riſe, of each a handfull: ſalt and ſoote the quantity of a walnut, it being all ſtamped with vineger and applied to the pulſes an hower before the fit. Some doe greatly approoue of a liniment of earthwormes boiled with gooſe greaſe to rub the brow and temples of the ſicke partie withall before the fit: or elſe to carrie about his necke the hornes of a ſwift hart, which is a ſingular remedie.

A Quotidian ague.

For a Quotidian, it is good to drinke ſomewhat before the fit, the iuice drawne out of betonie & plantaine; or to drinke euerie morning a reaſonable draught of the decoction made of the root of ſmallage, parſley, radiſhes, ſperage, leaues of betonie, and ſpleenwort, red cichpeaſe, and the middle rinde of elder: or to ſteepe in white wine the roots of danewort, and to drinke a ſmall draught thereof an hower before the fit: but after that he muſt take heede of ſleeping: or let him drinke euery day with wine two leaues of cinquefoile, one in the morning and another at euening: as alſo let him apply vnto his pulſes the cataplaſme that we haue ſet downe for the quartaine ague.

Headach comming of heat.

To take away the paine of the head comming of great heate, namely ſuch as befalleth mowers during the ſommer time, there muſt be applied vpon the browes ſlices of gourdes, or linnen cloathes dipped in roſe water, or the iuice of plantaine, nightſhade, lettuſe, purcelaine, and vineger of white wine: or let her beat two whites of egges with roſe water and with flaxe make a frontlet, or ſtampe bitter almonds with veruaine water, and apply them vnto the browes, or to waſh the head in warme water, in which hath beene boyled the leaues of vines and willowes, the flowers of water-lillies and roſes, and with the ſame water to waſh the feete and legges: and if in caſe the paine be ſo great, as that there is feare that he ſhould looſe his wits, let there be applied vpon the crowne of his head, browes and temples, a cataplaſme made of the white of an egge, bole-armoniake, crabs throughly boyled and poppie ſeed, with the water of betony and vineger.

Headach comming of drinking of wine.

If the head complaine it ſelfe of too much drinke, there may be made a frontlet with wilde time, maiden haire, and roſes: or receiue & take the fume of the decoction of cole-woorts: or by and by after the head beginneth to be ill, to eate one or two ſhort ſtarted apples, or ſome bitter almonds: or elſe to drinke of the ſhauings of harts-horne, with fountaine or riuer water: or if you ſee that your ſtomacke be not ſicke, thou maiſt take of the haire of the beaſt that hath made thee ill, and drinke off a good glaſſe of wine.

Headach proceeding of cold.

If the head become ſicke of ſome great cold, apply and laie to the head a bag full of branne, millet, and rubd ſalt: or of ſage, mariarom, betonie, tyme, aniſe-ſeed, fennell-ſeed, bay-berries, and iuniper-

berries,

berries, as hot as you can indure them; or elſe chafe the temples with the iuice of night-ſhade, oyle of roſes and vineger.

Frenſie. To cure the frenſie that commeth of a hot cauſe: you muſt apply vpon the head of the patient, the lungs of a ſheepe newly killed, or the whole gather: or ſome henne or pigeon, ſlit along the backe and applied vnto the ſame place: or rub his browes and all his head ouer with oyle of roſes, vineger and populeon: or with the iuce of night-ſhade, oyle of roſes and vineger.

Drowſines, or heauines of ſleepe. To awake thoſe which are giuen to ſleepe too ſoundly, it is good to make a frontlet of ſauorie boyled in vineger; or to make a perfume for the patients noſtrels; with ſtrong vineger or ſeed of rue or nigella, or feathers of a partridge, or of old ſhooe ſoles, or of the hoofes of an aſſe, or of mans haire; or elſe to apply vpon the browes a cataplaſme of mithridate, and vpon the right arme the head of a bat.

Too much watchfulneſſe. To cauſe them to ſleepe which cannot well ſlumber, it is good to make a front let with the ſeede of poppie, henbane, lettuſe, and the iuice of night-ſhade: or the milke of a woman giuing a girle ſucke; or with the leaues of ground iuie, ſtamped with the white of an egge; or put vnder the pillow a mandrake apple; or the greene leaues of henbane, and rub the ſoles of the feete with the greaſe of a dormouſe.

Swimming in the head. For the ſwimming in the head, there is commonly vſed the conſerue of the flowers of betonie, or *aqua vitæ*, or the confection called *Electuarium anacardinum.*

The Apoplexie To preſerue ſuch from the Apoplexie as are ſubiect vnto it, let them drinke in winter a god ſpoonefull of *aqua vitæ* well ſugred, and let them eat a bit of white bread by & by after: or inſteed of *aqua vitæ*; let them drinke the claret water which I will ſet downe hereafter, or of the water of the roote of the wilde vine, or of the powder of the roote thereof continually for the ſpace of a yeere.

The palſey. For the palſey, rub the place affected with the oile of foxes, baies, and *caſtoreum*, mixing therewith a little *aqua vitæ*: vſe likewiſe oftentimes the water of cinnamome, and of ſaint Iohns woort; or the conſerues of ſage, roſemarie, cowſlips, baulme and mithridate: make him drie bathes with the decoction of lauander, coſtmarie, dane woort, ſage, and morioram.

The Epilepſie or falling ſiknes. To preſerue one from the falling ſickenes, otherwiſe called ſaint Iohns diſeaſe, it is a ſoueraigne thing to drinke for the ſpace of nine daies a little draught of the iuice of the herbe paralyſis or cowſlips, or of the diſtilled water of the linden tree, or of coriander: or to vſe euery morning for the ſpace of fortie daies a powder made of the ſeede of poinie, and miſſletow of the oake, or of the ſkull of a man, and more ſpecially of that part of the ſkull which is neereſt vnto the ſeame of the crowne; with neat wine, or with the decoction of pionie: as alſo to

hang

hang about his necke the misseletow of the oake, or some piece of a mans skull, or of the roote or seed of male pionie, or of the stone that is found in swallowes nests: or to weare about his necke or vpon one of his fingers, some ring wherin shalbe set the bone of the foote of the oxe called elam or alce, & that so as that the bone may touch the flesh or bare skin: you shall deliuer them that are in that fit, if you tickle them and pinch their great toe, or rub their lips with mans blood.

Rednes of the face. To take away the rednesse of the face, it is good to wash the face with the decoction of the chaffe of barley and oates, and to foment it afterward with the iuice of citrons: or else take fower ounces of peach kernels, two ounces of the husked seedes of gourdes, bruise them and presse them out strongly, to the end they may yeeld their oile: rub or touch with this liquor the pimples or red places.

Spots in the face. To take away the spots of the face, make a composition of the flowre of lupines, goates gall, iuice of limons, and very white allome: touch the spotted places with this ointment: or else make an ointment with the oile of bitter almonds, honie, Ireos and waxe: or else rub your face with the blood of a cocke, hen or pigeon: or foment it with the water of the flowers of beanes, orenges or mulberries.

The kings euill. For the Kings euill take leekes, with the leaues and rootes of the herbe Patience: presse out about some pound of the iuice thereof, in which you shal dissolue an ounce of pellitorie powdred, and a scruple of *Viridis æris*, mixe all very well togither, and heerewithall you shall daily foment the said disease: hang about your necke the rootes of water betonie, and the lesser plantaine. If you cut the foote of a great witwall or toade, when the moone is declining, and beginneth to ioyne it selfe to the Sunne, and that you applie it round about his necke which hath the kings euill, you shall finde it very soueraigne for the said disease. The dung of a cow or oxe heated vnder the ashes betwixt vine or colewoort leaues, and mingled with vineger hath a propertie to bring the swelling to ripenes. Or else vse this remedie which is alwaies ready, singular good and well approoued, take a sufficient quantitie of Nicotiana, stampe it in a very cleane mortar, and applie both the iuice and drosse parts thereof vnto the saide tumour togither: and doe this nine or ten times.

Ill eies. The rheume falling downe vpon the eies is staied by a cataplasme applied to the browes, made of the muscilage of shell snailes, and corporated with the floure of frankincense and aloes well stirred togither, vntill that the whole become to the thicknes of honie.

A weake sight. For a weake sight, take fennell, veruaine, clarey, rue, eiebright, and roses, of each a like, and distill them all in a lembecke: of this water distilled put three or fowre drops in your eies morning and euening. Also the water of yoong pies distilled in a furnace is very good: in like maner the water of rotten apples, putting two or three drops

thereof

thereof into them. It is good for the ſame diſeaſe to take the vapour of the decoction of fennell, eiebright, and rue: to drinke euery morning a ſmall draught of eiebright wine, or to prepare a powder with dried eiebright and ſugar, to take thereof euery morning the waight of a french crowne, two or three houres before meate. There is a ſtone found within the gall of an oxe, which put into the noſtrils doth marueilouſly cleare the ſight. So doth the wine made of the roote of maiden haire, if it be oft vſed in the morning.

Paine in the eies.

For the paine of the eies, it is good to make the decoction of cammomile, melilot, and the ſeede of fennell in water and white wine, & dipping a fourefould linnen cloth therein, & after wringing it well, to apply the ſame oftentimes to the eie: or elſe to lay vpon it womans milke and the white of an egge well bet together.

Rednes in the eie.

The redneſſe of the eies is amended by the applying of linnen clothes or plegets of flaxe, moiſtned in the whites of egges well bet togither with roſe or plantaine water: or elſe boile a ſowre and ſharp apple, take the pulpe thereof and mixe it with nource milke; afterwarde make a little liniment to be applied to the redde eielids. In the meane time you may applie to the tempels a frontlet made with Prouence roſes, or conſerue of roſes and other aſtringent thinges, to the end that the rheume falling from the braine may be ſtaied, ſeeing it is the cauſe of ſuch rednes: other cauſe ſmall, thinne, and daintie ſlices of veale, or of the necke of an oxe newly killed, to be ſteeped in womans milke, and lay them vpon the eies, laying againe aboue them ſtupes of flaxe: ſome cauſe little children to make water in copper, braſſe, or latten veſſels, they ſwill the vrine round about the baſen, and afterward vpon the ſodaine do caſt it out of the baſen, they couer the baſen with a cleane linnen cloth and let it ſtand ſo coueted fowre and twentie howres, they finde ruſt in the bottome and round about it, they gather and diſſolue the ſaid ruſt with roſe water, which roſe water they keepe within a viole well ſtopped, and drop thereof into their eies euening and morning holding them wide open. Many likewiſe there be which content themſelues with Tuthia prepared.

Filth in the eie.

To take away the filthines or gummines of the eies, touch them and rub them round about with a ſaphire dipt in cold water.

A blacke and blew eie.

To preuent that the eie doe not continue blacke or red after a blowe, there muſt by and by be dropt into the eie the blood of the wing of a pigeon or turtle doue.

A blemiſh in the eie.

To take away red ſpots or blemiſhes of the eie, it is good to vſe the like remedie: or elſe to applie to the eie a cataplaſme made of yongue wormewood ſtamped, with the milke of a woman and roſe water.

Rednes in the eies.

For an olde rednes in the eie, take the bignes of a ſmall nut of white copperas, and a ſcruple of Florence Ireos, as much of roche alome,

lome, make a powder which you shall mixe with halfe a pint of fountaine water after the measure of Paris: or else boile them all together vntill the water become cleere, and drop into your eie three or fower drops, either of the one water or of the other: or make a liniment to apply vpon it with the drosse of oile of linseede, gumme, arabecke, tragacanth, masticke and camphire.

The inflammation of the eie.

For the inflammation of the eie, it is a singular remedie to apply to the eie the lungs of a sheepe newly kild: or to make a cataplasme of the pulpe of a sweete apple roasted vnder the embers, mingled with barlie meale, the milke of a woman, rose water and the white of an egge: the water of marigolds is also soueraigne good in this case. A wolfes eie, or the stones that are found in the mawes of swallowes, haue the like vertue hanged about the necke. Or take with the point of a needle a peece of frankincense, set it on fire with a waxe candle, after quench it in fower ounces of rose water, goe ouer this course thirtie times, and straine the rose water through a white linnen cloth, and keepe it to drop in some drops of the same into the corners of your eies at night when you goe to bed: and in case you may feele great paine in your eies, mixe together with this water a little of womans milke.

The weeping eie.

To restraine teares and all other humours falling vpon the eies, it is good to take a decoction of the leaues of betonie, the rootes of fennel, and a little fine frankincense, and to make an eie-salue thereof: also to wash the weeping eies oftentimes with the decoction of cheruile, or to drop thereinto sometimes the iuice of rue mixt with purified honie. Some hold it for a secret remedie, to tie behinde the head some drops of amber, which also haue the vertue to stay the rheume falling downe into the throte: or else to drop into the eie water distilled of the gall of a man and celandine: or else to annoint the edges of the eie lids with the soote of butter burned in a lampe, which is a secret for to drie vp and stay all rheumes of the eies, and to shut vp most speedily all vlcers made in the great corners of the eies, and all rheumes comming of the tenderneſſe or bleardneſſe of the eie.

The white spots of the eies.

For the white spots of the eies take one or many new egges laide the same day by one or moe blacke hens, or for want of blacke hens, by other, roste them hard vpon hot embers, cut them afterward into equall quarters, and take away the yelke, and put in place thereof as much sugar candie made in powder of the whitest you can get, straine all together through a linnen cloth very cleane and doubled, that so you may doe it verie strongly, the water or licour that commeth forth is very good, to drop one drop after another into the diseased eie, at night when they goe to bed or at any hower of the day: there is another water verie good for the same disease, which is made of white copperas, sugar candie, rose water, and the hard whites of egges, they being

being all ſtrained through a linnen cloth, and of this there muſt be ſome put into the eie after dinner and at night going to bed. Some doe vſe with very good ſucceſſe another water, which is this. Take of Tuthia prepared and powdered an ounce, mace halfe an ounce, infuſe them together in roſe water and white wine, of each halfe a pinte of Paris meaſure for the ſpace of ſixe weekes in a glaſſe well ſtopped, this glaſſe you ſhall ſet in the ſunne when it ſhineth, and take it in when it ſhineth not or is night or raine, ſtirre the glaſſe twiſe or thriſe euery day: theſe remedies are likewiſe good for red, running and weake eies.

Ache in the eare. For ache in the eare comming of a hot cauſe, drop thereinto the oile of henbane: take oile of roſes and a little vineger, and make thereof an iniection into the eare, apply thereto afterward a bag of cammomill, melilote, linſeede, and holihocks boiled in milke. If the cauſe be of cold, then put therin musked cotton, or a graine of musk. *Scribonius* doth commend greatly the ſoote of pitch dropped warm into the eare which aketh by reaſon of an inflammation, together with a little of the oile of roſes.

A noiſe in the eare. Againſt the noiſe and ſounding of the eare, it is good to drop into the eares of the oile of rue or ſpike, oile of bitter almonds or baies, together with a little Aqua vitæ, or fat of an eele: or Aqua vitæ wherin hath beene ſteept the ſeede of cummin or aniſe: or elſe take the ſcrapings of the wood of cedar-tree made very ſmall, and thereof fill a bag of crimſon taffata very thin, of the greatneſſe of an almond, dip it in very good Aqua vitæ, in ſuch ſort as that the ſaid bagge be throughly drencht with the ſame, put the ſame bagge well and forward and cloſe into the hole of the eare which bloweth and ſoundeth, and afterward lie downe vpon the ſame eare.

Deafenes. Againſt deafnes you muſt drop into your eares the iuice of an onion, or of brionie mixed with honie or oile, wherein haue beene boyled the rootes of daffodill, or of the iuice of the rindes of radiſhes mixt with oile of roſes, or the fat of an eele, and the oile of bitter almonds.

The ſmelling loſt. For the loſſe of ſmelling or when it is corrupted, make a perfume with the ſeede of Nigella, the leaues of Aron, rue and other herbes which haue a ſtrong ſauour: alſo ſmell oft vpon mints.

Swelling vnder the eare. For tumours vnder the eare, you muſt make a cataplaſme of the flower of barlie, boiled in honied water and putting thereto the muſcilage of fleawort-ſeed and the oile of lillies. A cataplaſme made of the dung of goates, freſh butter, and the reſidence of the oile of nuts doth digeſt the ſwellings vnder the eare.

Stinking noſtrels. Againſt the ſtinking of the noſtrils, it is good to ſnuffe vp into the noſtrils of the decoction of marierome, calameth, cloues, ginger, and nutmegs, made in white wine, or elſe of the vineger of ſquils.

To

Bleeding at the nose.

To stay bleeding at the nose, you must by and by lay your thombe vpon that side of the nose that bleedeth, and you must put about your necke a necklace of Iaspar stone: you must tie the vttermost parts of the bodie so strait as you can, and put in the nose a tent of dead nettles, and hold in your hands the leaues & rootes of agrimonie: or else hold in your mouth very colde cesterne water, and change it oftentimes. Some doe much approoue the vse of camphire, the flowers of willow, the mosse of quinces & other hoarie fruites put into the nose: and to applie vnto the browes camphire with the seede of nettles, or with the iuice of plantaine or of nightshade: or else to applie vnto the temples & about the necke, especially ouer against the iugular veines, herbes of a cooling facultie, as nightshade, plantaine, lettuse, dead nettles, or pricking nettles, punned with salt and vineger, peruincle and others. Peruincle also put vnder the tong hath the same vertue. Some doe make in like manner necklaces and bracelets of the herbe S. Innocent: some hold in the hand, that is, on that side that the nose doth bleede of, a branch of holihocke. Diuers countrie folkes to stay any kinde of bleeding in any part, doe wrap of hogs-dung in cotton, and apply it to the place from whence the blood commeth. Others snuffe vp into the nose the powder of a three cornered stone found in the head of a carpe, dried and made into powder.

Tooth-ache.

Against the ache of the teeth, you must boyle in vineger and rose-water the roote of henbane or of the mulberie tree, and to holde this decoction in the mouth: otherwise take a cloue of garlicke and roste it a little vnder hot embers, afterward bray it, and lay it vpon the pained tooth as hot as you can: in like manner put one in the eare of the sam side that the paine is: some doe bray a cloue of garlicke with salt, and lay it to the pulse of that arme that is vpon the aking side. Otherwise take two drams of the rootes of pellitorie bruised, of the leaues of sage, rosemarie, of euery one halfe a handfull: three fat figs, and you shall boile them all in ten ounces of wine vnto the consumption of all the wine, afterward you shall take a quantitie of the saide figs, and applie it to the aking tooth as hot as possible may be: or else wash and gargle your teeth with the decoction of ground iuie made in wine, and to the consumption of the third part of the saide wine: after the same manner, you must applie vpon the pulses of the temples, a plaister made of pitch, the powder of allome and a gall, very hot: It is good also for the ache of the teeth to put thereupon the iuice of garlicke, motherwort, rue, or some hot oile as that of sage, which is singular in this behalfe. Some holde it for a secret, to weare about the necke the tooth of a man knit within a peece of taffata: or a bean found, in which there is inclosed a louse, taketh away the most strong paine of the teeth that may be endured.

Loose teeth.

It is good to foment the loose teeth with the decoction of rose-

water

water and allome : or elſe of the rootes of cinquefoile and allome: & in caſe you would cauſe them to fal out, put in their hole or hollow place, of the aſhes of earth-wormes, or of the dung of miſe, or of the tooth of a hart, for ſuch aſhes will cauſe them to fall out by and by without any iron or inſtrument. Or elſe applie thereunto the ſtone of a mulberie: or elſe ſteepe the roote of mulberie tree ſtampt and bruiſed the ſpace of fiue daies in good ſtrong vineger in the Sunne, and there let it drie ſo as that you may make it into powder, and then applie the ſame powder vnto your tooth: or elſe you ſhall applie thereto the braines of a partridge : or the iuice of water-creſſes in the place : or elſe put into the hollow of the tooth the iuice of great ce-landine.

Blacke teeth.

To keepe the teeth cleane and bright, and to preſerue them from the falling downe of all maner of rheumes, take a pinte of fountaine water, a third part of roſe water, put therein two drams of allome, as much of cinnamom, boile them ſoftly together in a viall, or earthen pot well leaded, vnto the conſumption of the third or fourth part, waſh your mouth and teeth therewith, euening and morning: or elſe waſh your mouth and teeth in the warme decoction of ſmall ſage, roſemary and great marierome, boiled in white wine to the conſumption of the third part.

Red teeth.

To ſtay the canker of the teeth, holde in the morning a great graine of ſalt vnder your toong vntill it be there melted, then rubbe your teeth therewith.

Stinking mouthes.

To take away the ſtinking of the mouth, it is good to waſh the mouth with wine, wherein hath boiled aniſeede & cloues, or to chaw the roote of Acorns, or elſe to chaw maſticke long enough.

Stinking teeth.

For the ſtincking of the teeth, it is good to rubbe them with the leaues of ſage and the rinde of a citron, or with the powder of cloues and nutmegs : in the meane time there muſt be auoided the vſe of milke-meats, raw-fruits, ſharpe things, and ſuch as are hard to chaw, all victuals of ill digeſtion, and all vomiting.

Wrinkled hands.

To white and take the wrinckles out of the hands, take the droſſe of oile of linſeed, ſteepe it in raine water, and waſh your hands therewith : or elſe waſh your hands with the iuice of citrons alone, or ſome graines of ſalt mixed therewithall.

The cough.

For the cough : take hyſſope and folefoot, of each one handfull, figs of Marcellis, damaske raiſins, and licorice, of each an ounce, boile them all in water vntill the third part be conſumed ; vſe this decoction twiſe a day, two howers before dinner in the morning, and at euening one hower before ſupper. It is good likewiſe to take redde coleworts, and to make them boile two or three boiles with an handfull of folefoot, and a ſlip or two of hyſſop, and to vſe this broth twiſe a day.

For

Squinancie. For the Squinancie or soreneſſe of the throat, you muſt take a whole ſwallowes neſt boyled with white wine, and with the oyle of cammomill and ſweete almonds, therewith to make a cataplaſme and to applie it vnto the throate: or to drinke by and by the waight of a French crowne of the tooth of a wilde boare powdred, with the water of *Carduus Benedictus*: or to touch the diſeaſed place with a liniment made of linſeede, and the powder of the tooth of a wilde bore, or elſe to applie vnto the place a cataplaſme made of the dung of a yoong boy of a good cõſtitution, fed for the ſpace of three daies with lupines, and well baked bread leauened and ſalted, and hauing claret wine to drinke, and no other either meats or drinks, and adding to the foreſaide childes dung an equall quantitie of honie.

Pleuriſie. Againſt the Pleuriſie, drinke preſently with the ſyrupe of violets, or ſome other appropriate to the breaſt whatſoeuer, the waight of a ſcruple of nettle ſeede, or of the aſhe trees: or take three ounces of the diſtilled water of Maries thiſtle, or of *Carduus Benedictus*, or of broome, a ſpoonefull of white wine, ſixe ſprings or ſtraines of egges that are verie new, the waight of a French crowne of the ſhels of French ſmall nuts made into powder, eighteene graines of red corall poudred, al being mixed togither, let it be giuen warme, with as much ſpeede as may be: mundified barley and the ſeeds of melons, gourds, cucumers, and poppie are in that caſe highly commended: roaſt a ſweet apple vnder the embers, mixe therwithal when it is roaſted the iuice of licorice, ſtarch, and white ſugar; giue thereof vnto the diſeaſed twiſe a day, two houres before meate: or elſe take the waight of a French crowne of the powder of a wilde boares tooth, and cauſe him to ſwallow it, either with the iuice of ſweete almondes and ſugar candie, or with the broth of red colewoorts, or decoction of the water of barley, or ſome other ſuch like which is appropriate for the breaſt: or elſe burne to aſhes the piſſe of an oxe, & giue a dram thereof with white wine, if the ague be but ſmall, or with the water of *Carduus Benedictus*, or barley water, if the ague be ſtrong and great: and aſſure your ſelfe that ſuch remedies are ſingular if they be vſed within three daies of the beginning of the ſicknes. The manner of making theſe aſhes, is to cut the piſſe of the oxe in gobbets, and laying it vpon the harth that is cloſe laid to ſet a new pot ouer it, & afterward to lay hot burning coles, or hot embers about the pot, which muſt be oft renued, vntill one be aſſured, that it is burnt into powder: and the better to iudge of the time, he muſt thinke that this will not be done vnder a whole day. It is good to lay a plaiſter of blacke pitch vpon the greeued ſide: and where it commeth to paſſe that the paine of the ſide continueth, and that the ſicke partie cannot ſpet, cauſe him to vſe the decoction of the flowers of red poppie, or of the powder of them, the weight of a French crowne with the water of ſcabious and pimpernell,

nell, and syrupe of hyssope, if there be no great feauer; or violets if it be great. Furthermore, for a Pleurisie which is desperat and past hope, take a sweete apple, euen a very excellent one, and take the kernels foorth of it, and fill vp the hollow place with fine Olibanum, rost it couered ouer and rowled in stupes vnder the hot embers throughly, and then giue it to the sicke of the pleurisie to eate.

Spitting of blood.

For the spetting of blood, cause him to drinke the distilled water of the first little buds of the leaues of the oake, or the decoction of comfrey, or of plantaine, horsetaile or knotgrasse, otherwise called the herbe of saint Innocent: or to swallow downe some small drops of masticke, or harts horne, or goats horne burnt, or bole armoniacke, or terra sigillata, or corall, or amber, or the powder of the innermost rinde of chestnut tree, or of the corke tree: or frie the dung of an hog with fresh butter, and of that cluttered blood which the sicke partie shall haue spet, and so giue of these thus fryed together to the sicke partie to eat.

The beating of the hart.

For the beating of the hart, it is good to hang about the necke so much camphire as the quantitie of a pease, or to drinke two or three ounces of the water of bugloss and of baulme: some hold the distilled water following for a singular & soueraigne remedie. Take two hogs-harts, three stags-harts, or the harts of three bulles, nutmeg, cloues, and basill-seed, of each three drams, flowers of marigolds, burrage, bugloss, and rosemarie, of each halfe a handfull; steepe them all in malmesey or hypocras for the space of a night, after distill them with a lembicke, and reserue the water for vse, which shall be by taking three or fower ounces, when necessitie doth require. The conserue of betonie and rosemarie flowers: cinnamom water, aqua vitiæ, and imperiall waters, which we haue set downe in our worke of the beautifying of mans bodie.

Swouning.

For the faintnes of the hart or swouning, it is good to straine and wring the ioynt of the ring or physitions-finger: as also to rubbe the same with some piece of gould and with saffron: for by the meanes of that finger his neere communicating with the hart, there is from it conueighed and carried some vertue restoring and comforting the hart.

Flagging, withered and hanging brests.

For the flagging and hanging breasts of women, make a liniment with the drosse of the oyle of linsed, a little gumme arabecke, tragacanth, masticke and camphire: or with the iuice of succorie: or apply thereunto ground iuie, or the egges of partridges, which you shall chaunge oftentimes: or small basins of the distilled water of yoong pine-apples, or the iuice of wilde pine-apples.

Want of milke.

To procure much milke vnto nurces: they must vse the fresh & new gathered iuice of fennell oftentimes, or the iuice of smallage, or of beets, or the powder of the roots of Maries thistle, adding thereto the

ſeed of fennell and a little pepper : the forehooſes of a cow burned, and drunke with wine, or broth, or other conuenient liquor : or the powder of cryſtall powdred verie finely and drunke with wine or ſome broth: or let them eate of boyled colewoorts ſeaſoned with pepper : or of the rootes of rapes boyled with pepper.

Abundance of milke. To cauſe women to looſe their milke ; you muſt apply vppon the nipples of their breaſts, the rootes of great celandine ſodden and pouned : or vſe a fomentation of verie ſharpe oxicrate vpon the breaſts : or elſe you ſhall apply a cataplaſme of the flower of beanes ; or an emplaiſter of rue, ſage, mints, wormewood, fennell, branne boiled and mixed with oyle of cammomile, or the leaues of yoong and verie greene gourdes ; or of crayfiſhes, all to braied and ſtamped in a mortar.

The inflammation of the breaſts. For the inflammation of the breaſts comming of the great abundant ſtore of milke, take the durt found in the bottom of the troughes of cutlers or grinders, and therewith couer the breaſt, and ſo you ſhall aſſwage the paine in one night : you may adde thereto a little of the oyle of roſes: or if the milke be much curded without any great inflammation in the breſt, you may apply vnto it a cataplaſme of the flowre of rice, or of pure wheat boyled till it become like pap, with thicke red wine, and apply it vnto the teates vpon plageats, as hot as may be endured.

Belching. For belching at the mouth, it is good to take faſting a dredge made of aniſe, fennell, caraway, and coriander ſeede : or elſe to drinke wine in the morning two or three times, and that ſuch as wherein hath beene boyled bay-berries, aniſe, coriander, and fennell ſeede: and apply vpon the ſtomacke a bag full of rue, wormewood, marierome and mints.

Hicket. For the hicket, it is good to keepe ones breath oftentimes and long, to ſtop both his eares, to hold his head awry, and his mouth couered and vpward, to procure himſelfe to neeſe, to labour much, to indure thirſt, to caſt cold water in his face which hath the hicket, thereby to cauſe him to feare. Some are of opinion, that if he which hath the hicket doe count and recken the firſt, ſaying one or borrowing, he ſhall haue no moe but that one.

Vomiting. Againſt vomiting take a toſte of bread and ſteepe it in the claret water heereafter deſcribed, or in the iuice of mintes, ſpread it ouer with the powder of maſticke, applie it warme vnto the ſtomack, renuing it euery three houres. Otherwiſe, take two handfuls of mintes, and one of roſes, boile them in wine : take afterward two ounces of toſted bread, and let it be well ſteeped in wine, and afterwarde compounded with maſticke and the ſaide mintes and roſes, make thereof a plaiſter to lay to the ſtomack before you goe to meate. It is true, that if the vomiting be with an ague, it will be good to boile

the

the mintes and roſes, and to ſteepe the toſted bread in vineger. In like manner mintes braied and mingled with oyle of roſes, applied vnto the ſtomacke, is a ſingular helpe for any kinde of vomiting: it is good likewiſe at the end of meate to ſwallow downe one gulpe of water, or a morſell of marmalade of quinces, not drinking afterward: and in the morning two houres before meate, to ſwallow fiue or ſixe pepper cornes whole with wine, or the ſirupe of mintes, or of wormewood, or greene ginger preſerued: it is alſo good to ſet cupping glaſſes vpon the bottome of the ſtomacke, or vnde the nauell, and then chiefly when the partie eateth: to take reſt after meate, and to talke or cough any thing at all.

Paine in the ſtomacke.

For the paine of the ſtomacke, fill a diſh with hot aſhes, ſprinkle them with wine, ouer them caſt a linnen cloth, which may couer all the diſh, apply this vnto the pained place: or elſe put vnto the ſtomacke a hot bagge full of fried ſalt: or elſe take the crums of a good thicke loafe, and being dipt as it commeth hot out of the ouen in the oile of cammomill, and wrapt in a linnen cloth, let it be applied vnto the paine: or elſe fill a ſwines bladder with the decoction of the leaues of baies, organie, marierome, mintes, time, cammomill, calamint, melilote, aniſe and fennell ſeede, apply it to the paine, warme it againe when it ſhall be colde: or elſe make a cake with a handfull of wormewood, mintes, and roſes kneaded with Rie leauen and wine, and apply it vnto the ſtomacke.

The liuer obſtructed.

For the obſtruction of the liuer, vſe a decoction made of ſuccory, the roots of parſley, ſmallage, fennell, dogſgraſſe, patience, butchers broome, cich-peaſe, capillus veneris, hoppes and fumitorie: vſe likewiſe oftentimes the ſhauings of Iuorie.

Heat of the liuer.

For the heate of the liuer, there is nothing better then to vſe lettuce, ſorrell, purcelane, hops in portage, and ſometimes to drinke the water of the ſaid herbes faſting, or the water of endiue.

Iaundiſe.

Againſt the iaundiſe, drinke faſting of the dung of ganders the weight of a French crowne, well mingled with white wine, for the ſpace of nine daies: or elſe of the decoction of the leaues and rootes of ſtrawberies: or elſe take miſſletoe of the white thorne, gathered before the ſunne riſe, about a handfull, three or fowre rootes of parſley, bray them all togither with white wine, let them runne through a linnen cloth or ſtrainer, and drinke of this euening and morning a reaſonable draught. This is a more excellent remedy then many others: which notwithſtanding women with childe muſt not vſe, but in place of it, you muſt apply to the wreſts and ſoles of their feete, the leaues of miſſletoe of the oake, of great celandine, & horehound, the whole being braied with a little wine, and made in forme of a cataplaſme. Some commend highly againſt the iaundiſe, to take of the wormes of the earth, to waſh them in white wine, and after to dry them, and ma-

king a powder of them, to giue thereof a ſmall ſpoonefull in white wine, or the decoction of wormewood or of horehound: or to drinke faſting ones owne vrine certaine daies: or to drinke for the ſpace of eight mornings with white wine faſting, fiue trottles of a goate. Some ſay, that to cary in the left hand three leaues of wilde rocket, doth cure the iaundiſe. Some alſo holde that to weare vnder the ſoles of the feete the leaues of ſhepheards purſe, or of great celandine, next vnto their bare feete, doth the like.

Dropſie. For the dropſie, it is good to make a drinke with the ſeede of broome, pouned and braied in white wine: or to make a drinke of the iuice of the roote of Gladiolus or Aſarum with white wine: or to drinke faſting his owne vrine for the ſpace of certaine daies: to applie in like maner vnto the moiſt places a cataplaſme of cowes dung warme, with which, as *Galen* teſtifieth, a Phyſition of *Miſia* did marueilouſly heale all maner of dropſies: or to applie vpon the ſwolne place ſhell ſnailes aliue, not waſhed, but carefully bruiſed. A ſecret remedy againſt the dropſie, is to drinke with honied water the powder of glaſſe ſeuen times burned, and ſeuen times quenched in the iuice of flowre-deluce, or white wine.

Paine of the ſpleene. For the paine or heauineſſe of the ſpleene, drinke wine wherein hath boiled ſcolopendrium, ſperage, and hops: or elſe drinke oftentimes faſting of the broth of red coleworts halfe boiled, or of the decoction of Romaine wormewood, or of Pauls betonie, or of ſmall centaurie, or ſmiths forge water.

Colicke. For the paine of the colicke, there is nothing more ſoueraigne then to weare about him a ring or boxe of ſiluer, in which is incloſed ſome part of the nauell of an infant newly borne, and that the ring doe touch the fleſh: there is alſo nothing more ſingular, then to drinke in a prettie draught of white wine, the red pill which is to be founde in the ſpace and cartilaginous griſtles of walnut kernels, dried in the moneth of Auguſt and made into powder: or to drinke fowre or fiue ounces of the oile of nuts, or of linſeed, or of the ſhels of ripe nuts, or the water of cāmomill, or the decoction of the ſeed of hempe, or wine wherein hath beene ſteept for the ſpace of tenne or twelue houres the roote of Enula campana bruſed: or the powder of a ſtags piſle drunke with water: or the dung of hennes drunke with hyppocras made of honie and wine: or a cliſter made of brine: or the hart of a larke ſwallowed downe while it is freſh and new: or the ſaid hart of a larke faſtned to the thigh. As concerning outward remedies, ſome approoue greatly to take the skin of a ſheepe all new, or the kell of the intrails of a ſheepe newly killed, & to applie it vnto the bellie: or to make a bagge of millet, bran, wheate and ſalt fried togither, to lap vpon the bellie: a cataplaſme made of woolues dung is alſo profitable againſt the colicke: the ſame dung drunke with a little wine doth

very

very much good : the bones found in the dung of a woolfe pouned ſmall and drunke with wine haue the like qualitie : ſome ſay that if you take aſhes comming very hot from vnder the coales of fire, and put the ſaide aſhes in a diſh or pot, and afterward powre thereon a good glaſſe of claret wine : and afterward couer the ſaid diſh with aſhes, with a linnen cloth fower double, and applie it vnto the bellie, you ſhall finde releaſe and mitigation of your paine.

For the humorall fluxe of the belly, it is good to drinke milke, wherein hath beene quenched a gad of ſteele or of iron : or milke boiled with a halfe quantitie of water, and that vnto the conſumption of the water : or he ſhall take of a ſtags piſſe with ceſterne water : to vſe rice parched : to take a dram of maſticke powdred with the yolke of an egge: to make a cataplaſme with the flower of wheat to apply all ouer the nauell, but it muſt be wrought with red wine, and after baked in the ouen. *Fluxe of the belly.*

For the bloodie fluxe, giue to drinke with red wine the bloud of a hare dried and made in powder, or the powder of mens bones : or elſe gather the dung of a dogge, which for three daies hath fedde vpon nothing but bones, and this you muſt dry to make into powder: of this powder giue vnto him that is troubled with ſuch fluxe twiſe a day in milke, wherein you ſhall haue quenched many ſtones of the riuer, very throughly heated in a very hot fire, continue this two or three daies : or elſe giue to drinke the diſtilled water of the great butre, or the decoction of ſhepherds purſe : or the diſtilled water of woodbinde : or elſe giue to drinke the ſeed of plantaine in powder: or the diſtilled water of the firſt buds of the oake: or the pouder of ſnailes burnt with the powder of brearberies, and a little white pepper and galles : or of the harts and goats horne burned : or rather of the piſſe of a hart prepared, as we haue taught heere aboue in ſetting downe the remedies for the pleuriſie. *The bloodie Fluxe.*

For to ſtaie the fluxe of bloud, drinke a reaſonable draught of the iuice or decoction of dead nettle : make clyſters with the iuice of plantaine and horſetaile : vſe the broth of coleworts ſodden very tender : the iuice of pomegranats, and the ſubſtance it ſelfe ; ſallads of plantaine and ſorrell: chaw oftentimes ſome rubarbe. *Fluxe of blood.*

To looſen the bellie you muſt eate ſweete cherries, or peaches, figs or mulberies faſting : to ſup the firſt broths of coleworts, of beets, of mallowes or lettuſes, or of ciche peaſe without ſalt : to applie vnto the ſtomacke a cataplaſme made with honie, the gall of a bull, and the roote of ſow-bread : or the leaues of apples of coloquintida: to take a ſuppoſitorie made of fat bacon, or the ſtalke of a mallow or beete. *Coſtiuenes.*

To kil the worms of litle childrē, it is good to cauſe them to vſe preſerued rubarb: or the conſerue of peach flowers: to drinke the diſtilled water of gentian, or the iuice of citrons, the iuice of mints or baſill, of *Wormes.*

purſlaine, rue or wormewood, or elſe to cauſe them to ſwallow with a very ſmall draught of wormewood wine, of the powder made of wormes firſt dried, and after burned on a fire-pan red hot, and make it into very fine powder: or of the powder of bleſſed thiſtle, or of coralline the waight of a French crowne: alſo to applie vnto the nauell a cataplaſme made of wormewood, tanſie, and an oxe gall: and all this muſt be done toward the latter end of the moone.

Paines of the hemorrhoides. To ſtay the exceſſiue paine of outward hæmorrhoides, you muſt make a liniment of oyle of roſes, waſhed in the water of violets, freſh butter, oile of linſeed, the yelke of an egge, and a little waxe; or elſe to make a little cataplaſme with the crums of a white loafe ſteept in cowes milke, adding thereto two yelkes of egges, a little ſaffron, and a little Populeon. There may alſo a little liniment be made with freſh butter and the powder of corke-tree burned. In the paine of the hemorrhoides there is nothing more ſingular then the perfume made of ſhauings of iuorie.

The fluxe of the hemorrhoides. To ſtay the exceſſiue fluxe of the hæmorrhoides, it is a moſt ſingular remedie to drinke a dram of red corall: or of the ſcum of iron with the water of plantaine, and alſo to make a fomentation of the decoction of white henbane: or in place of this, a cataplaſme made of the powder of burnt paper, or of the ſhauings of lead, or of bole armoniacke with the white of an egge: or of three oiſter ſhels finely powdred either raw or burnt, and mixt with a little freſh butter.

The ſtone in the raines. For the ſtone in the reines you muſt drinke often of the iuice or water of the bodie of the beech tree, which water muſt be gathered in the ſpring time, in as much as then the bodie or the rinde thereof being ſlit or cut to the quicke, doth yeeld a great quantitie of water very ſingular for this purpoſe: the fruite of the eglantine preſerued before it be ripe, after the manner of marmalade with ſugar, hauing firſt taken the kernels from within, taken faſting to the end of the laſt quarter, and firſt daies of the moone following, in drinking ſomewhat more then a reaſonable draught of white wine, or of the water of wilde tanſie, or ſuch other, is very excellent therefore: he muſt alſo drinke very oft with white wine the powder of the pilling of reſt-harrow, or bucke-thorne, or of the gum which groweth round about the rindes of vines: or of the ſeede of gooſe-graſſe finely powdred: or to drinke the diſtilled water of radiſh rootes and nettle rootes, with a little ſugar: or the water of broome: or of dogs-graſſe: or of wilde tanſie: the water or iuice of radiſh, wherein is diſſolued the powder of egge-ſhels burnt, or of the ſtones of medlars, or of the eie of a partridge, or of the braine of a pie, or of the inward skin of the ſtomacke of a hen or capon. Euerie man praiſeth this decoction whereof *Ætius* maketh mention in his chapter of Sea-hollie. Take the rootes of Sea-hollie (the pith taken out) and make them very cleane, ſteepe them eight

howers

howres in fountaine water, after that to boile them till the halfe of the water be consumed, in the end of the boiling, cast into the pot licorice bruised: let this decoction coole at leisure. And as for outward meanes, it is good to apply a cataplasme made of pellitory of the wall vnto the reines, or else a cataplasme made of the roote of cypres, and the leaues of bell-flower boiled in wine. The best and most soueraign of all the rest is to prepare a bath, wherein haue boiled the leaues of water-parsley, mallowes, holihocks, March violets, pellitory, flowres of broome and cammomill, and within the bath vpon the reines a bag full of bran and water parsley.

For the colicke caused of grauell, cause to boile the leaues and flowres of cammomill in an equall quantity of water and white wine, to the wasting of the third part, drinke the decoction warme, suddenly the paine will be appeased.

For the difficultie of vrine, drinke the iuice of winter cherries: or the decoction of radish rootes in white wine, or the decoction of herb patience, or of the thistle saide to haue an hundred heads, or of bell-flowre, or of the white pricklie thistle, or of sperage, or of dogs-grasse, or of rest-harrow: also applie vpon the yarde or secret parts a cataplasme or liniment of fleawort. Some hold it for a great secret, to drinke white wine wherein hath beene braied sowes found in caues and hollow places: or to make powder of the said sowes dried, and so to giue the same to drinke in white wine. Others do greatly esteeme the distilled water of the pillings of the roote of rest-harrow, first steeped in malmesey. *Difficulty of vrine.*

For the stone in the bladder it is a singular thing to drinke the iuice of limons with white wine: or to make a powder of the stones of medlars first washed in white wine and after dried: of broome-seede, burnet-seede, and of the seede of sperage, holihocks, saxifrage, melons, pompions, citruls, and of the herb good against pearles, and to vse these with white wine. There is an hearbe growing at the new towne *Le Guyard*, called in French *Crespinette*, by those that dwell thereabouts, and of this the yong Lady of *Villeneufue* (sister to the late deceased Monsieur Cardinall of *Bellay*) caused to be distilled a water which is singular against the difficultie of vrine and the stone in the bladder, as I my selfe haue proued diuers times. Some hold it also for a singular remedie to make a powder of the stones of spoonges, or of the stone which is found in the head of cray-fishes, or of the shels of small nuts, or of the gumme of cherrie trees, and to take it with white wine or the iuice of radishes. Or else the distilled water of the stalkes of beanes, red cich-pease and the seed of holihocke. This which followeth of glasse is a great secret, which being burned and quenched seuen times in the water of saxifrage, and afterward made into a very fine powder, and giuen with white wine vnto the party troubled with *The stone in the bladder.*

grauell, doth breake the ſtone in them in any part of the bodie: another ſecret is that of the ſhels of egges which haue brought forth chickens, being braied, brued and drunke with white wine, which breaketh the ſtone as well of the reines as of the bladder.

Piſſing in bed. For all ſuch perſons as piſſe in their bed whiles they be aſleepe, and cannot hold their vrine, there is nothing better then to eate oftentimes the lungs of a yoong kid roſted: or to drinke with wine the powder of the braines or ſtones of a hare, as alſo the powder of a cowes bladder, or of a hogs, ſheepe or goates bladder, or the powder made of the rootes of biſtort, or of tormentill with the iuice of plantaine or with the milke of ſheepe, or the aſhes of the fleſh of an hedgehog.

Hot vrine. For the burning of the vrine, let be taken of ſhell ſnailes and whites of egges, of ech a pound, of the great and ſmall cold ſeedes, of ech halfe an ounce, halfe a pound of the water of lettuce, fower ounces of good caſſia, three ounces of Venice turpentine, poune that which may be pouned, and let it all ſtande to mixe together for the ſpace of a night, afterward diſtill them in a lembecke in Maries bath: let this water ſettle ſome time before that you vſe it: giue thereof halfe an ounce euery morning with a dram of *Saccharum roſatum*, continue the vſe thereof as long as you are able.

Barrennes in women. To make a woman fruitfull which is barren, let her drinke fower daies after the purging of her naturall courſe, the iuice of ſage with a very little ſalt, and let her continue and goe ouer this courſe diuers times.

The menſtruous fluxe. To ſtay the exceſſiue fluxe of the flowers of women, they muſt drinke with the iuice of plantaine, the powder of the cuttell bone, or the bone of a ſheepes foote burned, or the ſhels which pilgrims bring home after their pilgrimage to Saint *Iames*, or of corall, or of harts horne, or of the ſhels of burnt egges: or of twelue red graines of the ſeede of Pionie: or to ſwallow with the yolke of an egge the powder of tezell, or the ſcumme of iron firſt dipt in vineger, and after made into fine powder. And as for outward meanes it is good to applie vnto the nauell ſhell ſnailes well braied, or the red in the voide ſpace of the nut, burnt, and powdred, and mingled with wine: make a cataplaſme of ſoote, or of the ſcraping got from vnder the bottome of a caldron, mingle it with the white of an egge, or the iuice of dead nettle, or white mulleine, and apply it vnto the loynes and bottome of the belly: or to fill a bagge ſufficient full of groſſe ſalt, to dippe in freſh water newly drawne out of the well, and to apply it to the hollow of the reines. Some make great account of cherrie-tree gum infuſed in the iuice of plantaine, and caſt into the priuie parts with ſmall ſirings: or to apply to the breſts the leaues of celandine.

The white termes. For the white termes of women, after that the body is purged, it is good to drinke with the iuice of plantaine, or the water of purce-

lane,

lane, the powder of amber, of corall, or of bole armoniake, or of terra Sigillata, or of steele prepared, or of spoong burnt in a pot, or of the sea snaile first burnt, and afterward washt in wine. And as for outward meanes there must be made a lee with ashes of oake woode, or of the figge-tree, or of the osier, in which there must be boiled the rinde of pomegranats, galles, pieces of corke, leaues and rootes of bistort, and of periuncle, beyond-sea roses, with a very smal quantity of allume and salt, and of this to make a fomentation or a halfe bath.

For to cause women to haue their termes, they must drinke euery morning two ounces of the water of mugwoort, or of the decoction of dogs-grasse, cich pease, the seed of common or Romaine nigella, of the roote of smallage, cinnamon and saffron, the rootes of radish, of the tasell in which one may dissolue as much mirrhe as the quantitie of a beane. The iuice of sea holly, and of tasell, mixed with white wine is singular in this case: a bath also is very good, and it may be prepared with water of the riuer, in which shall haue boiled mugwoort, mallowes, hollihocke, cammomill, melilot, and other such like herbes, and within the bath to rub the hips & thighes, drawing them downward, with a bagge of mugwoort, celandine, cheruile, smallage, betony; seedes of nigella, and other such like. Some esteeme it for a rare remedy for to take the weight of one or two French crownes of the marrow of a hart, to tie it within a little knotte of fine and cleane linnen, and to put the said knotte into the woman her secret place deepe inough, but this to be after the body hath beene prepared and purged.

Suffocation of the matrix.

For the suffocation of the matrix, the legges must be rubbed alwaies drawing downward, & tying them hard to put the party thereby to great paine: put cupping glasses vpon the thighes, rub the stomack drawing downward, from the pit thereof to the nauell. Furthermore she must be made to smell vnto things that stinke and smell strong: as the feathers of partridges, or shoesoles burnt, and below to applie thinges that are very sweet smelling, as cloues, marierome, amber, time, lauander, calaminth, penny royall, mugwoort, ciuet: the leaues of white mullen, which hath his stalke rising very high: you must also giue her to drinke the quantity of a beane of mithridate, dissolued in the water of wormewood: or fifteene red or blacke seedes of pionie, bruised and dissolued in wine. The only remedy for this disease is, that if it fall out that the sicke party be with child, that then her husband dwell with her, for the remedies before spoken of are dangerous for women with childe. Some do much esteeme in this disease, the course following, that is, that the woman euery weeke to keepe her selfe free, should drinke three spoonefuls of white wine, wherein hath been boiled and steept an ounce of the roote of briony.

The falling downe of the mother.

For the falling downe of the mother, the party must be caused to vomite,

vomite, to haue her armes rubbed and bound hard to mooue great paine, to set cupping glasses vpon her breasts, and to cause her to smell vnto sweete and odoriferous things, and below to applie thinges that are of a strong and stinking smell: there must be giuen her to drinke the powder of harts horne, or of drie bay leaues with red wine that is very sharpe; in like manner a cataplasme made of garlicke stamped and dissolued in water: or nettles newlie braied and applied vnto the bellie, causeth the matrix to returne into his place. Holihocks boiled with oile and the fatte of quailes, made in forme of an emplaister, and applied to the bellie are very profitable. Ashes made of egge shelles wherein chickens haue beene hatched, mixed with pitch and applied vnto the belly, do put the matrix againe into the place. Some are of opinion that one leafe of clot burre, put vnder the sole of the womans foot draweth downe the mother, and being applied vnto the top of the head doth draw it vp on high.

The inflammation of the matrix.

For the inflammation of the matrix, it is good to make an iniection with the iuice of plantaine, or of nightshade, or of houseleeke, or to apply a cataplasme made of barly flowre, the rindes of pomegranates, and the iuice of plantaine, houseleeke or nightshade.

The inflammation of the yard.

For the inflammation of a mans yard, the same cataplasme will be very soueraigne, if there be added vnto it some quantity of drie red roses: or else take the new dung of a cow, frie it in a pan with the flowres of cãmomill, briar and melilot, lay it to the cods, you shal perceiue the swelling to depart quickly.

The stinking of the feet.

To take away the stinking smell of the feete, put within your shooes the scumme of iron.

For to make a woman fruitfull that cannot conceiue: take a Doe great with fawne, kill her, and draw out of her belly the membrane, wherein the fawne lieth, turne the fawne out of the said membrane, and without washing of it, drie it in the ouen after the bread is drawen foroth, being dried make the inner part and place where the fawne lay, into powder: giue of this powder three mornings vnto the woman, and that by and by after midnight with three or fowre spoonefuls of wine; let her not rise of fowre houres after, and aduise her that her husband may lie with her.

To be brought in bed before due time.

If a woman with childe haue accustomed to lie downe before her time, it is good that whiles she is with childe, she vse with the yolke of a new egge, a powder made of the seede of kermes, otherwise called diers graine, and of fine frankincense, of each an equall part: or else that she vse oftentimes of the powder of an oxe pisle, prepared in such sort as we haue set downe among the remedies for the pleurisie: or else that she weare continually vpon some one or other of her fingers a diamond, for a diamond hath the vertue to keep the infant in the mothers wombe. Some say also that the slough of an adder,

dried

dried and made into powder, and giuen with the crums of bread is singular good for the staying of vntimely birth. The eagles stone is commended for this aboue all other things, which being worne vnder the left arme pit, or hanged at the arme of the left side, doth keep the infant, and hindreth vntimely birth.

Hard and painfull labour.

To bring to bed the woman which is in trauaile of childe, you must tie on the inside of her thigh, not farre from the place by which the excrement of ordure passeth, the eagles stone, and so soone as the childe is borne & the woman deliuered to take it away: for the same purpose to giue her the decoction of mugwort, rue, dittanie, and penniroyall, or of the iuice of parselie drawne with a little vineger, or of white wine, or hypocras, wherein hath beene dissolued of the powder of the canes of Cassia, of cinnamom, of the stones of dates, of the rootes of cypres, of the flowers of cãmomill, of the roote of round aristolochie or birthwoort, or the iuice of Tota bona with white wine, or else the leaues of Tota bona stamped, laide vpon the secret parts and round about. And when a woman is in trauaile of childe and looseth all her strength, it is good to giue her bread steept in hypocras, or a spoonefull of the water called claret water, which must be prepared in this sort: lay to steepe in halfe a pinte of good aqua vitæ according to the measure of Paris, about three ounces of cinnamom wel shaued, by the space of three daies, in the end whereof let the saide water run through a cleane linnen cloth, and dissolue therein an ounce of fine sugar, after put thereto about the third part of old red rose water, and let all stand together in a bottle of glasse to vse when neede requireth. This water is principally good for all the diseases of the mother, as also for fainting, swouning, weakenes of the stomacke, difficultie of breathing, of making water and many others.

The claret water.

The afterbirth.

To cause the after-birth to come forth, the remedies next aboue deliuered are very good and profitable, but aboue the rest it is good to drinke with white wine or hippocras warme, the powder of beanes or the flowers of saffron, or the flowers of marigolds.

Throwes of women after childbirth.

For the throwes which come after childebirth vnto women, you must giue to drinke a spoonefull of the foresaide claret water, or of the water of peach flowers, nutmeg, carabe and ambergrise: you must make a cataplasme to apply vnto the belly with the yelks of egs hard rosted, or fried with oile of nuts and iasmines, putting thereto of the seedes of anise and cummin powdred, the flower of beanes, fresh butter, and oile of rue and dill.

If the matrix after childebirth be out of frame, it is good to apply vnto the belly a cataplasme made of cowes, sheepes or goates dung, adding thereto the seedes of cummin, fennell, anise and parsley, with a quantitie of very good wine; and for want of this cataplasme, the belly may be couered all ouer with the kaule of a new slaughtered

sheepe

sheepe or goate : as also to haue a dish of the plane tree or a test of earth, and after you haue rubbed the edges of the said test or earthen drinking pot with a head of garlicke, to apply it vnto the nauell.

For the rupture For the rupture, otherwise called the falling of the guts downe into the flanke, it is good to applie vnto the place, a cataplasme made of the flower of beanes and the lees of white wine, or a cataplasme made of the roote of the great and small comfrey, and of stone pitch with a little mastick, or double linnen cloathes dipped in the iuice or licour, which commeth out of the small fruit of the elme, and vpon this cataplasme to weare a trusse. It is good also to drinke for the space of nine daies, a drinke prepared of the iuice of the rootes of Salomons seale, and female ferne, the leaues of bugle and sanicle, and this to the quantitie of a small draught : or else burne in the ouen in a pot well luted, red snailes, make them into powder, and giue of this powder for the space of fifteene daies, or longer if neede be, with such pap as is made for little infants, or with pottage if they be past the teat : for them that are more dainty and delicate, you shall distill the said snailes in Maries bath, and giue of the distilled water to drinke the same space of time : or else make a powder of the mosse of the blacke thorne, drinke of it with thicke red wine the waight of a French crowne euery morning : applying in the meane time a certaine pap or thicke clammish substance such as is to be had in the paper mils, and tie vpon it a trusse.

Gout and ache in the handes. For paine in the feete and hands, boile a good handfull of mugwort in a sufficient quantitie of oile oliue, vnto the spending of the third part, make thereof an ointment for the pained place : giue also to drinke the waight of a French crowne of the seedes of Ebulus, with the decoction of one of the herbes called Arthritica.

Sciatica. For the Sciatica, you must applie to the greeued place a cataplasme made of the crums of citizens bread, kneaded or boiled in cow or sheepes milke, putting thereto two yelkes of egs and a very little saffron : otherwise there must be prouided a cataplasme of the rootes of mallowes and holihocks, the leaues of March violets and of mallowes, the flowers of cammomill and melilote, all boiled in the water broth of tripes, after washt and wrought together with yelkes of egs, flower of lineseede, hogs-grease and oile of cammomill: or else, and more easily, you must make a cataplasme with cowes dung, flower of beanes, bran, wheat and cummin seede, all beat and made into a masse with honied vineger : it is true that if the greened part doe grow vnto a whitish colour and be much puffed vp, it will be good to adde vnto the former cataplasmes, stone pitch and a little brimstone. It will be good also to draw the iuice of danewort, of elder and iuie, and to boile them afterward with oile of rue and wormes, and with a little waxe to make a liniment. A cataplasme made of the dung of an oxe or a cow,

and

and wrapt in the leaues of the vine or of coleworts, & heated among the embers. And in caſe you would draw out of the vttermoſt part vnder the skin, that which is ſetled in the inner places of the ioints, then apply this cataplaſme made of the dung of ſtocke-doues or houſe-doues, an ounce; of muſtard and creſſes ſeed, of ech two drams; oile of old tiles an ounce: mixe all theſe very well together.

For the ſhaking of the parts of the body, vſe a long time the decoction of one of the herbes Arthriticæ called primroſe and ſage, eate alſo oftentimes of pine apples.

For ſinewes oppreſſed, take the ripe ſeede of danewoort, put it in a viole halfe full, fill it vp with oile oliue, ſtop it very cloſe, and let it boile fower and twentie houres in a poſnet full of hot water: and as oft as the hot water ſhall be boiled away you muſt put other in place of it, all the time of the fower and twentie houres: which being expired, take away the ſaid viole of water, and ſet it in a dunghill ten whole daies: you may alſo make oyle of danewoort for the ſame purpoſe; fill an earthen veſſell well leeded to the halfe, with the iuice of the leaues of danewoort, and poure thereupon ſo much of oile oliue, ſet this veſſell well ſtopt with paſte in an ouen, after the bread is drawne, there let it ſtande till the iuice be waſted; keepe this oile for ſinewes that are colde and benummed: or more eaſily, apply vnto the place the dung of an oxe or a cow fried with ſtrong vineger or the oile of acornes; or the gumme of the wilde peare-tree ſoftned with capons greaſe, or the oile of linden or Ieſamine tree. *Sinewes oppreſſed.*

For the prickings of ſinewes, take ſnailes with their ſhels, bruſe them and adde thereto a little of the flying duſt that is to be gathered vpon the wals of the mill-houſe, and apply it to the place pricked, or elſe rub it with the oile of wormes. *For the pricking of the ſinewes.*

For ſinewes that are pained, take rawe wormes of the earth, bray them and lay them haſtily and with ſpeede vnto the benummed ſinewes. Or elſe infuſe in the Sunne the flowers of elder in the oile of nuts, and rub therewith the pained ſinew, or rub and chafe the ſame with the oile of balſam. *For the paines of the ſinewes.*

For all other ſortes of paines in the ioints, it is good to make an emplaiſter with the iuice of red coleworts and danewort, the flower of beanes, flowers of cammomill and roſes made in powder, and to apply them vnto the pained place. Otherwiſe, cut in thinne ſhauings the roote of the great comfrey whiles it is yet greene and but newly pluckt vp out of the earth, ſpread that which you haue ſhaued or ſcraped off, vpon a linnen cloth in manner of a cataplaſme, and apply it vnto the pained place. Otherwiſe, take the rootes and leaues of danewort, the leaues of ſcabious, the ſmall comfrey and wilde ſage, boile all together in wine, after let it paſſe through a ſearce, and put thereto oile of ſpike, Aqua vitæ, and the oile of neates feete. Otherwiſe, take *Paines of the ioynts.*

a very fat gooſe puld and the garbage taken cleane out, after ſtuffe her with kitlins that are well liking, and chopped very ſmall with common ſalt, & roſted at a ſmall fire, and looke what droppeth forth let be reſerued for an ointment for the greeued place. Some likewiſe apply for the paines of the ioints, yong whelpes vpon the pained places. *Galen* ſaith, that he was wont to ſoften all ſuch hardneſſe as is wont to happen about the knees, by applying vnto them old cheeſe all mouldy, ſtamped with the broth wherein a ſalt gammon of bacon hath been boiled.

Windy ſwellings.

To take away the ſwellings procured of winde, you muſt take fried ſalt, and put it betwixt two linnens vpon the ſwelling: or applie a cataplaſme made of the lees of white wine, the branne of wheat and new oxe dung.

Red pimples or ſwellings.

For ſuch ſwellings as are very redde, make a cataplaſme with the leaues and flowres of violets, flowres of henbane, leaues of nightſhade, flowres of cammomill and melilote, all boiled in wine and water, ſtrained through a ſearce, and applied vnto the aking place: or elſe draw the iuice of houſleeke with a little red wine and the flowre of barley, make an emplaiſter for the place. The dung of goates hath power to waſt, ſpend, and conſume the hard ſwellings, how hardly ſoeuer reſolued and waſted, eſpecially the old hard ſwellings about the knees, mingling the ſame with barly flowre and water and vineger in forme of a cataplaſme.

To ſuppurate an impoſtume.

To ripen an impoſtume, apply vnto it the dung of goſlings, which haue beene kept from meate three whole daies together, and after fed with the gobbets of a freſh eele: it is good alſo to apply rawe wheat champed or chawed a long time: a cataplaſme made of the leaues & roots of mallowes, hollihocks, onions, lillies, crums of white bread, all ſod together and after ſtrained through a colander, adding thereto the yelke of an egge, and a little ſaffron: It is true that if the apoſteme be very cold, there may be added to the decoction of the cataplaſme aboueſaid the rootes of elacampane, danewoort, lillies, and brionie, flowres of cammomill and melilot, onions, and wheat leauens. To ripen a naile, otherwiſe called a fellon or cats-haire, take raw wheat a long time chawed, or the flowre of wheat, the yelke of an egge, hony, and hogs-greaſe, after heat them all togither, and make a plaiſter to lay to the ſoare: or elſe lay vpon it ſheepes dung ſteept in vineger, if in caſe you minde to ſoften and reſolue it.

A naile otherwiſe called a furuncle or cats-taile.

Tetters.

For tetters you muſt vſe the iuice of purſlaine, celandine, plantaine, nightſhade, and limons: and if this medicine appeare not to bee ſtrong inough, it will be good to mixe ſome red tartar amongſt, and with this compoſition to rub the ſpotted places. Otherwiſe, infuſe for the ſpace of a whole daie in ſtrong white vineger the roote of herbe patience, cut into ſhiuers, rub the place where the tetter is with

one

one of the ſhiuers three or fower times a day : or elſe boile tenne graines of ſublimate, and halfe a dram of aloes in equall quantitie of plantaine and nightſhade water, vnto the conſumption of the one halfe: or elſe ſteepe the powder of a ſlate in very good vineger with ſalt and rub the place. Otherwiſe, take the gum of cherrie tree, a very little brimſtone, with twiſe ſo much ſalt as brimſtone, ſteepe all togither in the ſtrongeſt vineger you can get, and with this compoſition rub the ſpotted places : or elſe rub the place with your faſting ſpettle or with the gum that groweth about the vine : but before this you muſt rub them with ſalt nitre, or elſe with the herb Nicotiana, applying both droſſe and iuice together vnto the place.

The pittes of the ſmall pockes.

To take away the markes and pits of the ſmall pockes : take an ounce of oile, or of the flowers of Saint Iohns woort, halfe an ounce of Venice turpentine, as much of ſperma cœti; melt it all vpon the fire in a diſh of earth well glaſed; when it beginneth to boile and to ſwell vpward, take it from the fire and let it coole, rubbe and chafe the places of blacke ſpots with this ointment, and continue it ſo long as till the pits be filled vp.

Vlcers about the nailes.

For vlcers and apoſtemes which happen about the nailes : laie vpon the ſoare a little worme which is found in the head of the taſell when it is drie.

For ſchirrous tumours.

For hard ſwellings : take mallowes, holihockes, the rootes of lillies, pellitorie, the leaues of white mullein, ſeed of line and holihocks, flowers of cammomill and melilot, let all be boiled in equall portions of water, wine and vineger : after paſſe them through a colander, adding thereto the flowre of barley and beanes, the powder of cammomill and roſes, hens greaſe, and freſh and new butter : make a plaiſter to lay to the ſoare. Likewiſe it ſhall be good to lay hot thereunto a cataplaſme made of the droſſe of Bee hiues diſſolued in white wine and fried in a frying pan.

Falles from on high.

For ſuch as are fallen from on high, giue the weight of halfe a French crowne of this powder with good wine, mummia, tormentill, rhapontick, ſperma cœti, of each a dram : or elſe giue the weight of a French crowne of the powder of the ſeede of garden creſſes, of mummia, of the ſeede of houſleeke prepared and ſugar candy.

A greene wound.

For a green wound, you muſt take garden baulme, the great and ſmall comfrey, and a little ſalt, punne them all together and apply them vpon the wound. It is good alſo to drop into the wound the iuice of nicotian, or for the more profitable vſe thereof to apply both the droſſe, as alſo the iuice thereof ſtamped, and to binde vp the wound by and by, and aſſure your ſelfe that within three daies it will be recouered. Otherwiſe, take the elme apples, the flowres of Saint Iohns woort, and of roſemary, the knops or buttons of roſes, put all together in a glaſſe bottle full of oile oliue, ſtop the bottle diligentlie

and

and ſet it to the Sunne, ſo long as till all be ſo far conſumed, as that it may ſeeme to be rotten; afterward let it runne through a linnen cloth diuers times, and then keepe it in a viole to drop into wounds. The readieſt and moſt ſoueraigne remedie is the iuice of Nicotiana and the droſſe or ſubſtance likewiſe: and alſo the ointment made thereof, which we will handle hereafter, *videl.* in the ſeuentie ſixe chapter of the ſecond Booke. This ointment is very ſingular: take veruaine, agrimonie, betonie, and pimpernell, of ech a handfull, waſh them diligently, and being waſhed ſwing them well, ſtampe them togither in a mortar; being ſtamped, put them in an earthen veſſell well glaſed, with ſeuen pintes of white wine to boile till halfe of it be conſumed, the veſſell in the meane time being cloſe couered, and the fire burning cleere and ſoftly: after draw the veſſell ſomewhat further from the fire, and let it coole vnto the next morning, then ſtraine it out a little, warme the groſſer parts that it may ſo be forced through ſome hairie ſtrainer, and adde thereto of white pitch melted by it ſelfe, & alſo ſtrained through a hairie ſtrainer a pound, halfe a pound of white waxe in graines: maſticke and turpentine, of ech one ounce, make thereof an ointment of good conſiſtence. Likewiſe there is nothing more ſingular then to take of greeke pitch, brimſtone, and olibanum equall parts, to bray them togithet with the whites of egges, and after you haue ſtanched and wiped away the blood in handſome ſort, to ioine and bring togither the edges of the wound, and to apply it thereto with a linnen cloth and a cataplaſme, afterward to binde and roule it vp with double linnen clothes, and ſo to leaue it for certaine daies: or elſe boile the leaues of Carduus benedictus and flower of wheate in wine vnto the forme of an ointment, waſh the vlcers twiſe a day with wine: afterward lay thereunto this ointment, or elſe waſh the wound with the decoction of Dent de lion: more eaſily thus: take the durt which you finde vnder buckets, troughes, or ſuch like, and apply it vnto the cut: it cloſeth it vp incontinently.

Old or new wounds.

For all wounds as well old as new, vlcers and whatſoeuer cuts in the fleſh: take the leaues of plantaine, ſpearewoort or ſmall plantaine, mallowes, all-good, of ech a handfull, French ſage, about fower and twentie leaues: let all the foreſaide herbes bee well picked, waſhed, and after ſtamped verie well all togither: this done, take fiue quarts of old ſwines greaſe, put thereinto a hot peſtill and cauſe it to melt, then boyle it with the ſaid herbes, and when you ſee that the liquor of the herbes is conſumed, you ſhall ſtraine it and put therevnto as much frankencenſe as a nut, greene waxe and perroſine, of each as much as two nuts, melt them, that ſo they may all be brought vnto the forme of an ointment, of which you ſhall make vſe for all ſorts of wounds. Otherwiſe, take brimſtone moſt finely poudred and ſearced, put it in a glaſſe-veſſell, and powre thereupon ſo much oile oliue

as

as wil do more then couer it by fower or fiue fingers, ſet it out vnto all the heate of the ſunne you can for the ſpace of ten dayes, and ſtirring it about many times with a ſpatull of cleane and faire wood, and keeping the ſaid veſſell cloſe ſhut continually, to the end there may not any durt fall thereinto. At the ende of the tenne daies emptie out all the oyle by leaning the glaſſe ſoftly to the one ſide (ſeeing it hath extracted all the ſubſtance or eſſence of the brimſtone) into another glaſſe bottell by the helpe of a funnell, and let not any of the droſſe or reſidence go in withall, after which you ſhall ſtop the bottell verie carefully: and at ſuch times as you would vſe it you ſhall dip lint, white linnen cloath, cotton or blacke woolll in it, and apply it vnto the parts that are hurt, whether by vlcers or cuts, as alſo vnto impoſtumes, and that ſo long as vntill they be cured: you may powre in oile againe the ſecond time vpon the reſidence (left after the oyle powred out as befor ſaide) and doe as was done before. Make account of theſe two latter remedies as of thoſe which will not faile you.

For the boile called *Anthrax, Carbunculus*, and other ſuch peſtilent tumours, ſee that you applie vnto them rue bruſed and mixt with very ſtrong leauen, figges, cantharides, onions of the land and ſea, vnquencht lime, ſope, gum ammoniack, and a little treacle: for this emplaſter draweth forth ſuch kinde of tumours. Or elſe take a toade, dry her either in the ſunne or in the ouen, make her into powder, and put of this powder vpon the carbuncle, and it will draw foorth all the venome: or elſe applie vnto the carbuncle a frog aliue, and if ſhe die, then another, and do this ſo oft as vntill that one do liue, and ſo you ſhall darw out all the venome. *The carbuncle Anthrax, &c.*

For vlcers comming of the pockes and ſuch other maligne ones, take ten pintes of water, quench therin hot irons ſo long as till the ten pintes become but fiue, and in theſe fiue pintes infuſe for the ſpace of fower & twenty houres a pound of vnquencht lime, after that ſtraine the water, when it is ſtrained diſſolue therein fifteene graines of Verdegreaſe, and aſmuch of vitriole, and twentie graines of camphire; this water is ſingular to mundifie, clenſe, and drie vp vlcers. Otherwiſe, ſet to boile in a new earthen veſſell very cleere water, when it beginneth to boile, put into it by and by vnſleckt lime, and preſently thereupon powre it out into another veſſell all new, let it reſt there ſo long, as vntill (after it be ſcummed) it become cleere, the lime falling to the bottome of the veſſell in manner of pap: in the end you ſhall gather the water ſwimming aloft by leaning the veſſell and letting the lime abide vnſtirred in the bottome, and this water thus gathered ſhall be reſerued in a cleane viole or other veſſell well ſtopped, that ſo it may ſerue for your vſe: in which being warme dip a linnen cloth, and applie it in ſteede of an emplaiſter vnto the vlcer, and renew it oft. *Vlcers of the pockes.*

To draw out miraculouſlie a pellet, make a tent of a quince, and *A wound with ſhot.*

for want of it, of marmalade of quinces onely without any addition of ſpices or other things, annoint it with the oile of egges, and put it into the wound or hole made by the ſhot of the piſtole.

Inward wounds. For inward woundes in which there can no tents be put, there muſt be drunke oftentimes the decoction of Auens: and the outward wounds waſht: or elſe take mugwoort, great and ſmall comfrey, whole betonie, agrimonie, the rootes of rubia, otherwiſe called the Diers hearbe, the rootes of ſmall plantaine, otherwiſe called carpenters herbe, ſage, the leaues of brambles, parcelie, pricking nettle, marigolds, ſanicle, bugula, mouſe-eare, burnet, dendelion, plantaine, the crops of hempe, female ferne, bugloſſe, gentian, veruaine, birdes toong, ground Iuie, water germander, catmint, herbe Robert, cinquefoile, tanſey, all the capillar herbes, of each one haiſe handfull: damaske raiſins their ſtones taken out, licoriſe, the ſeede and flowers of ſaint Iohns woort, the ſeede of bleſſed thiſtle, of each an ounce, the theree cordiall flowers, of each fowre ounces; all theſe being thus carefully pickt, and made cleane, let be braied very throughly, after ſtrained through a hairen ſtrainer, with one pinte of white wine: you muſt cauſe him which is thruſt through to drinke of this drinke a little drauhgt faſting, or one howre before he eate, and aſmuch before his ſupper. If theſe iuices diſpleaſe thee, in ſteed of braying, bruſing, or ſtamping of the things aforeſaid, you may make a decoction in common water, adding in the ende of the decoction, white wine, honie of roſes, and ſirupe of dry roſes. In the meane time the wounde muſt be clenſed with white wine warme, and there muſt be laid vpon it a leafe of red coleworts warmed at the fire, and reaſonablie greene: and there muſt care be had to keepe the wound from ſalte and thicke meate, from ſtrong wine, great paine, and vſe of women.

Knots or knobs. To cauſe knobs to waſte & go away in any part of the bodie whatſoeuer, take the oldeſt and moſt mouldie cheeſe that you can finde, knead it with broth wherein there hath boiled a piece of fat bacon or lard a long time, make thereof a plaiſter to lay vpon the place: or elſe ſtampe in vineger Conchula Indica with mirrhe, applie it to the place, and you ſhall finde a marueilous effect. Otherwiſe take nine pints of vrine, wherein boile for a good while two handfuls of balme & Dent de lion in a pot of earth very cloſe couered, & that ſo long as vntill all come to a pinte, after ſtraine out the herbes, in the liquour ſtrained out, put halfe a pound of hogs greaſe verie newe and neuer ſalted, fowre ounces of aqua vitæ, boile them all together the ſpace of halfe an howre, after put thereto the oile of pike and roſemarie, of each an ounce, quicke ſiluer the waight of two french crownes, mixe them all together, and ſtirre them well with a ſpatull; and by this meanes you ſhall make an ointment, with which you ſhall vſe to chafe the members troubled with knots, before the fire.

For

For haire that is fallen by the diſeaſe called Tinea, or otherwiſe: rub the bare and bald place with a piece of died cloth, vntill it bleed, afterward annoint it with an ointment made of honie, oile of linſeed, and the powder of ſmall flies burnt vpon a tile red hot: or with miſe dung braied with honie: or with ſhels of nuts burnt, pouned and mixed with wine and oile. *The falling of the haire.*

For vlcers that are hard to be cured, gather with linnen clothes ſpred vpon the graſſe before ſunne riſe in the moneth of Maie, the dewe of the ſame moneth: afterward wring out the ſald linnen for to haue the dew, which you ſhall boile and ſcum, and in boiling dip therein diuers bolſters or plagets of fine linnen, which you ſhall applie vnto theſe maligne vlcers; afterward when you ſhall perceiue that theſe vlcers doe not continue any longer ſo fowle and filthie, and that they begin ſomewhat to ſhew to haue faire fleſh, boile in this dewe water a little allom and olibanum, and by this meanes you ſhall heale them throughly: or elſe make a powder of the raw or burnt ſhels of oiſters, or of the dung of a dogge, which hath gnawed and fed vpon nothing but bones for the ſpace of three daies: after you haue dried the ſame dung, and made it readie to apply vnto the vlcers, there is not any thing to be found that will more drie vp the ſame: or elſe make a powder of a rotten poſt. *Vlcers.*

For kibes on the heeles, make powder of old ſhooe ſoles burned, and of them with oile of roſes anoint the kibes: or elſe lay vnto the kibes the rinde of a pomegranat boiled in wine. *Kibes on the heeles.*

For the blewneſſe comming of ſtrokes or otherwiſe, ſteepe in boiling water a cloth hauing ſalt tied within vpon a knot, and with this foment the bruſed place. *Blacke and blew ſpots through blowes.*

To take away wartes or brawnie tumours in the ioints, rub them with the milk of tithymal: or apply therunto the powder of ſauine, or of hermodactilis mixed with oxymel ſquilliticum, or with the iuice of marigoldes: the dung of ſheepe wrought with vineger and made ſoft and applied doth heale all hanging warts. *Wart.*

For the *Noli me tangere*, it is killed if that Nicotiana bee applied thereunto, as wee will further declare in our ſecond booke and 76. chapter. *Noli me tangere.*

To kill crablice, make a decoction or Lee of the leaues of wormewood, aron, and nut tree in very ſtrong vineger. *Crab-lice.*

For all burning or ſwinging with fire, take the decoction of radiſh with the lee of vnquencht lime: or an onion roſted vnder the embers, or oile of nuts with water: or the yolke of an egge diſſolued in oile: or hens dung tempered with oile of roſes: or moſſe of the black thorne the fineſt that you can finde dried in the ouen or in the ſunne made into fine powder, and with the milke of a woman which giueth ſucke vnto a boy, to make a liniment to annoit the places burned: *Burning.*

or elſe take ſalt water or brine, dip therein a linnen cloth and applie it vnto the burning: or common ſope with honie and butter: or the iuice of an onion: or the oyle of an egge: or elſe diſſolue allom, copperas, the fat of glaſſe, and a little camphire in fountaine water and good vineger, powre this water oftentimes from pot to pot, dip a linnen cloth in the ſame water warmed vpon aſhes, and apply it to the place: or elſe take two whites of egges, beate them together with oyle of nuts and roſe water, adding thereto the remainder of ſuch water as quicke lime hath beene quenched in, ſtir them all yet once againe well together, and afterward let them ſtand and ſettle.

Ringwormes. For ringwormes, ſcabs, and all maner of ſorts of itchings which happen in the hands, legs, and other parts of the body: take the water of a ſmithes forge, and put a handfull of ſalt to melt therein: with this water made warme waſh the place where the ringworme ſpreadeth: when the ſcab is drie, annoint it with the creame of cowes milke. Or elſe take of Venice turpentine two parts, waſh it fiue or ſixe times in freſh water, or in roſe water, after that it is thus well waſhed, adde vnto it one part of new butter ſalted, the yelke of an egge, and the iuice of a ſowre orenge, make hereof a liniment and annoint the ſcabbie places therewith before the fire. Or elſe for little children, take the iuice of nettles and populeon, and make thereof a liniment: or elſe take ſoote finely powdred, mixe it with ſtrong vineger, therewith you ſhall annoint the place, hauing firſt rubd it well euen to the raiſing of rednes in the skin.

The canker. For the canker, take honie of roſes, roach allome, ſalt and white wine, boile all togither till the halfe be conſumed, and then ſtraine it through a linnen cloth, afterwarde keepe the water for to waſh the canker. Some doe greatly allow and like of the diſtilled water of cowes dung newlie made, to waſh the places troubled with the canker.

The moth in the haire. For the falling of the haire called the moth, waſh the head of the patient with oxe piſſe till the blood come, and afterward caſt vpon it the powder of the white of hens dung dried in the ouen: or of fine ſoote mixt with ſtrong vineger.

To make the haire blacke. To make any mans haire blacke: Take ſuch quantitie as you ſhall thinke good of gals, powder them and put them ouer the fire in an iron chafingdiſh, and let them continue there, till they become verie blacke; then powre vpon them by little and little the oile of oliues, alwaies turning them to and fro, in ſuch ſort as that they may drinke vp all the oile, and after become drie againe, in ſo much as that they being taken from the fire may be pounded very well: whereunto adde of vitrioll, roſemarie, ſal gemmæ, the dry earth whereof tiles are made and cloues, all theſe being likewiſe made in powder. On the other ſide boile in wine the rinde of the wall-nut, and of the pomegranat, and allome,

allome, as much of the one as of the other, so long as till the wine become blacke as inke, straine this wine, and cast into it your powders before you vse it scoure your head with some good lee, and then hauing dried it againe, afterward wash it with this wine wherein these drugs be, and then put on a coife, & so keepe it for fiue or sixe houres after: in the end wash it very well with water and wine and drie it: the haire will abide blacke for fiue or sixe monethes.

The byting of a mad dog.

Against the biting of a mad dog, giue to eate the roote of sweete eglantine: foment the place with the vrine of a young infant: or with the grosse partes of the decoction of rue, figs, red coleworts and salt mixt with honie and butter.

The byting of serpents.

If the husbandman or any of his people haue beene bitten with a snake or other serpent, let him drinke presently an indifferent draught of the iuice of the ashe tree pressed out with white wine, and let him apply vnto the bitten place in maner of a cataplasme the leaues out of which the iuice was pressed: or let him drop into the hole made by the snakes biting three or foure drops of the milk of the fig-tree, or of figs, or some mustard-seedes pouned with vineger: or else take the leaues of white mullein, auens, red goose berry bush, of each a handful: boile them all in vineger and vrine of a man, a like much, vnto the consumption of the halfe: drinke an indifferent draught of this decoction, and foment the bitten place with the leaues.

A snake crept into the bodie.

If it fall out that a snake or any other serpent be crept into the farmers body, or into the body of any of his seruants lying asleepe with their mouthes open in the medowes, gardens or other places, ther is nothing more soueraign to force the same againe out of such a body, then to take at the mouth with a funnell, the smoke of a perfume made of some old shoo sole, for the snake detesteth such stinking sauours aboue all other things: and to drinke the decoction of veruaine made in white wine. A thing tried and approued.

Horse-leaches.

If a man haue swallowed downe a horse-leach in drinking water, you must giue him fleas with strong vineger.

The stinging of spiders.

If any rat, spider, flie, waspe, hornet, or other venemous beast, by his sting or biting haue caused your flesh to rise, rub very gently the offended place with the iuice of housleeke, & incontinently the paine and swelling will cease: or else rub the place with your owne spettle: or else put vpon the stung place, the dung of a cow or oxe very hot.

Lyce.

To kill lice: rub the place with the iuice of broome, mixe it with the oile of radish, or of iuniper, or with the decoction of staue sacre: or else boile within an earthen pot well leaded, equal parts of Olibanum and larde of bacon, make them in forme of an ointment, passe them through a search, and keepe it afterward to rub the head withall, or any other place where lice are.

Mushromes eatē

For the danger insuing of the eating of mushrūs, drink with hony &

 vineger

vineger, hens dung braied, and you shall within an hower be healed of the heauines and strangling fits of the stomacke: or else drinke the lee made of the vine branches with a little salt.

And for as much as in the most part of the diseases aboue named and such others, it is needfull that there should some purgation be taken to cast out the hurtfull humours which gather in the body, the wise huswife may prouide and make this purgatiue following. Take virgins honie one pound, rubarbe, or sene, or agaricke, euen of any one of them, or all three made into powder, fower ounces; mixe this powder with the honie, and let it stand in the shadow sixtie daies in a pot well couered: stir it euery daie, and take away the froth which you shall finde on the top of it: the honie will keepe all the force of the medicine, and will cast vp in a scum the substance thereof; in such sort as that still it will abide without mixture. To make this composition the more pleasant, you may mixe therewithall some one or other drug that is pleasant and of a good relish. If you further desire to be instructed in diuers other remedies which are readily and easily to be gotten, looke in our Latine worke called *Thesaurus sanitatis paratu facilis.*

The thirteenth Chapter.

Of kine and calues.

A cleane cow-house.

FOr the better keeping of kine, let the huswife procure and cause her maides to ouerlooke oftentimes & see that all things be well in the cow-house: for there is nothing that doth them so much good, and keepe them so well in health and good liking, their meat & fodder excepted, as the cleane and neate keeping of their houses: let them rub them along the backe, about the necke and head and no more, with a wispe of strawe harde writhen togither, and made somewhat rough: at their comming from the pasture and in the morning after they haue beene dressed, let them carefully fill vp the holes that are in their house floore, wherein their pisse might stande and stinke, and let them cast sande or grauell vppon the floore, that they may haue the faster and surer setting of their feete. Let them not be put to the bull, before they be vpon their thirde yeere, nor any longer then vnto their twelfth yeere: for if they bee put to sooner then they bee growen vppe to their full strength and growth, they will bring foorth calues halfe cast, smal and little, weake and feeble: and againe if you goe about to continue their bearing after twelue yeeres, their calues will not bee so strong nor of so comely a shape: you shall lead them thereto, throughout all the time of the moneth of May, Iune & Iuly, when the grasse doth most flourish; & again about this time they are chiefly set to go a bul-

The putting of kine to the bull.

The time of the yeere fittest for kine to be put to the bull.

ling,

ling, seeking for the bull of themselues without being lead vnto him. And you shall know their inclination to the taking of the bull by their hooses if they be puffed vp or swolne, as also by their continuall lowing, and by their leaping vpon the buls backe. The profit which riseth by their taking of the bull at this time is, for that they will happen about tenne monethes after (which is the just time of their going with calfe) to calue, and that being at such time as new grasse doth draw on, it will be an occasion of greatly increasing their milke, and vpon this occasion also their calues shall be a great deale the better fed. To the ende they may hold bulling the better, you must see that at such time they be kept bare and leane, for so they will hold a great deale better: on the contarie a good bull for breed must be fat, well set together, and welll meated, hauing for two moneths space before beene fed with barley and fetches: he must also be chosen more long then high, of a red haire, large betwixt the shoulders, strong legged, round trussed and bodied, broad brested, short headed, broade browed, fierce countenanced, terrible to fight, blacke eies, short hornes, long taile and full of haire. And if it happen that the cow refuse the bull, or the bull her, they must be brought to haue a desire the one to the other by holding neere their nostrils the taile of a hart burned, or else vsing some other composition whereof we will speake in the treatise of horses. During the time of their going with calfe they must be kept from leaping ot ditches, as also from leaping of hedges or bushes: and a little before the time that they doe calue to feed them in the house, or yeard adioyning to the house, and that with good prouander, or blossomes, not milking them at all; for the milke that they haue then cannot be but naught and becommeth hard as a stone. When they haue calued they may not be milked to make any butter or cheese, vntill two moneths be past: after which time you shall send them againe to their pasture, not suffering their calues to sucke them any longer, except it be at night when they returne from pasture, so long as they feed vpon fresh prouander, which you shall haue in readines for them: and in the morning before you send them to pasture. In what state soeuer they be, you shall not let them drinke aboue twise a day in sommer and once in winter, and that not of riuer or flood water, but of some water which is warme; as raine water, fenne or well water, hauing beene drawne a long time before, for well water by reason of the coldnes might somewhat hurt them. It is true that the cow will not refuse anie water that is without fault, so that it be clere, for she loueth cleere water especially, as the horse on the contrarie, that which is pudly and troubled, being a signe of his goodnes if so he iumble the water with his foot before he drinke. And as for calues newly calued, you must leaue them with good litter of fresh straw, vntill such time as she haue licked, cleansed, and wiped them,

Signes of a good bull.

A cow with calf.

The cow would haue a cleere water as the horse a troubled.

and for some fiue or sixe daies after, for the being of the cow with the calfe doth heat and settle the calfe. After such time you shall put it by it selfe in some shed prouiding it good litter, and renewing the same oftentimes, and thence you shal bring them foorth when you woulde haue them sucke, & carrie them thither backe againe so soone as they haue sucked. And if you see, either that they will not sucke, or that being willing to sucke, they can doe nothing but offer to take the paps without sucking any thing: you shall looke vnder the toong if they haue not the barbes, which is a whitish fleshines growing vnder the toong almost after the manner of the pip, which (and if it be so) you shall take away gently, without fleying the toong, with little nipping pincers: washing the place afterward either with red wine of it selfe, or with the infusion of salt and garlicke stamped togither, for this disease will cause them to languish vnto death by keeping them from sucking. Let the huswife also be diligent in taking away the lice that may breed vpon calues, and make them languish and thriue nothing at all, as doth also the scab when they haue it: and this is to be knowen by their skins, if they become hard and stiffe after the maner of little ridges, and that stroaking your hand along you feele the skin hackt and rough like a file, and the haire staring and standing vpright. For the healing of such scabs she shall rub them with butter or with oile of the setlings of the lampe all ouer the body where the scab is seazed. But as it is a great deale better to preuent diseases then to cure them, the huswife shall cut off all entrance from these two annoyances, if she cause to be rubd with the wispes of straw vnbound her calues twise a day, if she suffer not their pisse to stand in puddles vnder them, if she see that they be kept with fresh litter and drie, causing their dung to be carefully cast out from among their litter.

The barbs vnder calues toongs.

Lice and scabs of calues.

Kyne.

But to returne to the keeping and ordring of kine, the huswife shall appoint times for the milking of them, as that they be milkt euening and morning at a conuenient howre, and when they be at red. That the milke be strained so soone as it is taken, and that butter bee chernd with leasure but not any losse, that the cheese be well crasht, prest, and freed from their whay, and especially that her pots, kneading troughes, strainers, slices, and cheese presses, and other implements seruing for the dairie, be kept neat & cleane, and that none of her maides haue any thing to doe with either the butter or cheese whē they haue their termes. In the morning before going to field, she shall cause the calues to be gelded, and that before they be two yeeres old, and not after: for calues grow the more when they are gelded in the time of their growth, because thereby their bodies are made the more moist: when they are gelded in respect of their paine and griefe, there shall be giuen them hay small shredded and mingled with branne, vntill they become againe to their former stomacks and appetites:

To geld the calues.

appetites: they muſt not be gelded either when it is very hot or cold, or in the old of the moone: being more than three yeares olde they ſhalbe put to the neatheard, to begin to prepare thē for the draught: and likewiſe ſhe ſhall deliuer him her kine with calfe, and thoſe which after nine yeares do not bring foorth any more calues, for yet they may ſerue to draw in the yoke.

Furthermore ſhe ſhall make much account euermore of the cow which is of a meane ſtature, of a long body, a large flanke, fowre or fiue yeeares old, of a party blacke colour, or ſpotted with white and black, her bagge great and ſide, a great belly, broad betwixt the browes, a blacke eie and great hornes not turning in one towards another, nor yet ſhort or ſmall, but bright, blacke, and of a wide and well ſpread ſhape, her eare very hairy, a narrow iawe, a thicke and groſſe muzzle, wide noſtrels and ſniuely, little and blacke lips, her haire gliſtering and thicke ſet, her legs ſhort, her thighes groſſe and thicke, and her necke long and groſſe, her backe large and broad, her taile long euen to the heele, her hoofes ſhort and euen, a broad breſt, a great and groſſe briſket and her dugs great and long. As concerning the diſeaſes of calues and kine, they ſhall be handled, as ſhall be ſaide heereafter in the chapter of the neat-heard. *The markes of a good cow.*

The dung of a cow made hot in the embers, being wrapped in certaine vine leaues, or in the leaues of colewoort, and applied in forme of a cataplaſme, doth appeaſe the paine called Sciatica: being fried with vineger doth ripen the kings euill; being fried in a frying pan with the flowres of cammomill, melilote and brambles, it diminiſheth the ſwelling of the cods, applied very hote vpon the places troubled with the dropſie, it cureth them throughly, and applied vnto any place ſtung by bees waſpes and hornets it taketh away all the paine.

The foureteenth Chapter.

The way to make greene cheeſe, butter, and other ſortes of cheeſe.

SHe ſhall be carefull, aſwell for the feeding of her people, as alſo for the gayning of the penny, diligently to ſet on worke her daughters and maide ſeruants about the good ordering of the milke of her kine, in the making of the butter and cheeſe thereof. And firſt as concerning milke, ſhe muſt not make any account of that which commeth from the cow after ſhe hath new calued to preſerue and keepe it: for beſides that it is naught both to make butter and cheeſe; it is alſo very dangerous for to vſe. Like as we ſee that mothers which nurce their children, make no account of their firſt milke to giue it to them: the reaſons whereof you may learne in our booke *Milke.*

of

The keeping of milke.

of the diſeaſes of women. After the milke is milked, you ſhall ſet it in a place where it may be warme, to the end it may be kept the longer, and become the thicker in ſhort time: inaſmuch as heate doth ſauegard and thicken the milke, as cold doth ſowre it and make it to turne by and by: and therefore to auoid this danger, it is good to boile it: and thereupon to ſtirre it much before you let it reſt, if peraduenture you be not diſpoſed to keepe it three daies or ſomwhat more. She ſhal

Good milke.

know good milke by his whitenes, pleaſant ſmell, ſweete taſte, and reaſonable thicknes in ſubſtance, in ſuch ſort as that being dropped vpon ones naile it runneth not off preſently, but ſtaieth there and abideth round a good while: ſhe ſhall not let her milke be kept long, as aboue a day in ſommer, eſpecially in Autumne and the ſpring, in which ſeaſons milke becauſe of the heat and temperature of the time would be ſpoiled and preſently turned, but as ſoone as ſhe can, ſhe ſhall gather her creame, greene cheeſe, butter, preſſed cheeſe, whaie and other commodities which a good huſwife is woont to raiſe according to the time: although in winter the kine yeelding ſmall ſtore of milke, as being then with calfe, ſhe may gather three or fower meales togither, which will not ſo ſoone be ſpoiled by reaſon of the coldnes of the winter, which maketh the milke to thicken preſently: likewiſe at this time ſhe ſhall gather but ſmall ſtore of butter, but ſhall turne all her milke into cheeſe: it is true that ſeeing cheeſe is not of ſo great priſe in winter, neither yet ſo good and daintie as in ſommer, ſpring-time & Autumne by reaſon of the graſſe; that therefore it ſhall be no great danger to gather the butter cleaner from the cheeſe in winter than at any other time.

Creame.

She ſhall gather her creame from the vppermoſt part of her milke, preſently after that the milke is drawne from the cowe and cooled a little: and with this creame to make creame cheeſe, ordinarily accuſtomed to bee ſolde in ſommer to be vſed at meetings of ſmaller account, or in the end of dinner and ſupper: the Italians with ſuch creame cheeſe or Parmiſan do mixe fine ſugar well powdred, togither with roſe water.

Freſh or greene cheeſe.

The milke curded and thickned without runnet, will make little cheeſes, which the Pariſiens doe call Ionches.

Sowre milke or Serate.

The Normans do boile milke with garlicke and onions, and keepe it in veſſels for their vſe, calling it ſowre milke or Serate.

Whay.

The whaie may ſerue for the feeding of the hogs and dogs, as alſo in the time of dearth for ſuſtenance for the familie, if ſhe boile it but a little.

Butter.

For to make butter, ſhe ſhall reſerue the neweſt and fatteſt milke, that ſhe ſhall haue, whereof ſhe ſhall gather no creame; and ſhe ſhall make account of ten pounds of milke, to make two pounds & a halfe of butter: to make this butter, ſhe ſhall beate or cherne it a great

while

while in veſſels made for the purpoſe, eſpecially whiles the times of greateſt heat indure, ſeeing ſuch heate is the cauſe that butter commeth not and is not made ſo ſoone as at other times. If ſhe will make account to ſell it, ſhe ſhall ſalt it, and put it in pots of earth, ſuch as we ſee brought to Paris from Britaine, Normandie and Flaunders. The butter of a yellow colour is the beſt: and that of a white colour is the wooreſt: but that which is gathered in May is better then either of the other.

The making of cheeſe.

As concerning the making of cheeſe: ſhe ſhall chooſe the moſt groſſe and fat milke, being pure and newly drawne, to make cheeſe that ſhall keepe a long time, and of ſuch milke ſhe ſhall gather neither butter nor creame: but ſuch as it commeth from the cowe, ſuch ſhall be put in veſſels for to coagulate and turne to curdes. The way to curdle it, is to mingle therewith of the runnet, of a lambe, kidde, or hare, or the flowers of wilde thiſtle, or the ſeede of bleſſed thiſtle, or the iuice of the figge tree which commeth out of the tree, when one cutteth the greene barke thereof, or the leaues and hoarines which groweth at the ſmall end of the artichokes, or ginger, or the inner skin of a houſe hens ſtomacke, or the ſpawne egges of a pike, and with theſe it is vſuall to make cheeſe to be eaten in lent: or the blacke mutable thiſtle, therefore called *Chameleon niger*. Let her beware of caſting in any the leaſt quantitie of vineger, for one onely drop of vineger is ſufficient to hinder the turning of the milke into curdes. The pot in which the milke is, muſt not be without ſome quantitie of heate for to keepe it warme: and yet notwithſtanding it muſt not come neere vnto the fire, as it may not ſtand farre off. And when it is curded and gathered togither, it muſt be put preſently into ſlices, formes, or fats, for it is profitable that the whay ſhould runne out, and ſeparate it ſelfe from the curd. But chiefly and aboue all other things it is required that the maidens which ſhall meddle with the making of cheeſe, ſhould be cleanly, fit for the purpoſe, their ſleeues from about their hands and armes foulded vp, and aboue all farre from being troubled with their termes. In like ſort the people of the countrie of Auergnac, which make great reckoning of their cheeſe, doe chooſe the yoong children, that are but of fowreteene yeeres of age, and thoſe proper, neate and handſomely trimmed vp, not hauing ſcabbed or ſcurnie hands, neither yet of an vntemperate heate, for they thinke and perſwade themſelues, that ſuch filthines of the hands doth hinder the full curding and ioyning togither of the cheeſe, and ſo doth make them full of eies.

To curde the milke.

Hard cheeſe.

If ſhe determine to drie, harden, and keepe them long, ſhe ſhall the more carefully looke to the ſtrayning foorth of the whaie and cleere milke, and after to ſet them in rowes vpon ſhelues, lattiſes, or cheeſe-heights fit for the ſame, and that withall it be in a ſellar, or in

ſome

ſome darke and coole place : or elſe to take them vp into ſome high place, hauing ſtore of aire : prouided alwaies that the ſunne haue no power ouer the cheeſe : ſhe ſhall ſhift them euery day vntill about the fourth or fifth day, at which time they will begin to caſt a floure, as though it were the flowre of meale, & then ſhe ſhall caſt a litle ſmall ſalt vpon them : the next morning ſhe ſhall turne the otherſide, and doe the like therewith : after ſhe ſhall turne them euery day, and if need be make them cleane on both ſides and about the edges with a rebated knife made of purpoſe, ſuch a one as will not cut. After ſome time when ſhe knoweth that they are ſomewhat dry, ſhe ſhall put them in another place, as vpon boordes laide as it were vpon ladders, ſhe ſhall clenſe and ſcrape them oft, and keepe her boordes cleane alſo : and if by ſtriuing to keepe them long, they become hard and bitter, ſhe ſhall couer them ouer in grauell, or in barlie flower, or in cich-peaſe, or elſe ſhee ſhall couer them with the leaues of dragons, which likewiſe doe keepe them from being eaten of mites, and that they doe not become mouldie. And in caſe that wormes doe eate them, ſhe ſhall take away this vermaine, and annoint them with oile of linſeede or the droſſie partes of the ſame, which wil preſerue them ſingularly well : or elſe ſhe ſhall put them in a great heape of millet corne or linſeed, which will keepe them freſh and coole in the hotteſt times, and hot in the coldeſt times. And ſeeing the deepeſt point of skill about cheeſe, is to beſtow them ſo as that they may beſt mellow, ſhe ſhall bring them together in the end and put them in preſſes the cloathes taken out, and ſet neere the wals of cellars vnder the ground vpon ſmall boords, hauing moiſtened them before with oile oliue, or linſeede and vineger mixt together.

The goodnes of cheeſe.

She ſhall iudge that for good cheeſe which is fat and heauie, the meate of it cloſe and well compact, of colour ſomewhat yellowiſh, ſweete to taſte, pleaſant to ſmell, and nothing mouldy, neither yet full of mites or wormes, and which is made of pure cowes milke, without mixing any ſheepes milke therewith, for it maketh the cheeſe leſſe ſauourie and more whitiſh : it is true indeed that it may be made to looke yellow, ſome ſaffron mixt therewithall, as is vſuall amongſt the inhabitants of Poictou. An old cheeſe all mouldie, braied and mixed with the decoction of a ſalt gammon of bacon, & applied in forme of a cataplaſme doth ſoften all the hard ſwellings of the knees.

The fifteenth Chapter.

Of hens.

The hen-houſe kept cleane.

AS concerning the ordering of pullen, which is the chiefeſt thing that a good huſwife is to regarde, there muſt care be had that the hen-houſe be euery day made cleane, euen ſo ſoone as the

pullen

pullen be out, and the dung put aside for the fatting of the medowes. The baskets for them to lay in oftentimes shaken vp, and refresht with new strawe and nestes, and their pearches and ladders scraped euery weeke. The roofe or vpper part of the house shut in euery night at sun-set for feare of fulmers, and opened euery morning at sun-rise. Their water pots to let them drinke at must be kept cleane, and filled with cleane water euerie daie, and that twise in winter, and thrise in sommer. Let their water be cleere alwaies, least otherwise it cause them to haue the pip, which thing happeneth as soone vnto them of the filthinesse of their water, as of the want of it: let her cause to be cast out vpon the dunghill oftentimes fresh straw right ouer against the barne, where the pullen vse to scrabble, and neere vnto the same place, let her cause to be put sand, dust or ashes, to procure them the pleasure of dusting themselues in the sunne, and pruning of their feathers: let her cause to be remooued far from them the residence of wine or drosse of the presse, of whatsoeuer fruits, and from the place of their haunt, for such things keepe them from laying. And it further behooueth her to haue this care, as to see that throughout all the hen-house, there be neither lath broken, nor any place of the wals hauing any lome fallen either without or within, or any sheete of lead lifted vp or raised, thereby to preuent the danger of cats, foxes, weasels, pole-cats, fulmers, and others beastes giuen to rauin abroad in the night, as also the kite, henharrow, and owle, which sometimes will not let to swap into the very brood-house to catch and carie away the chickens.

Baskets for hens to laie in.
Pearches and ladders made cleane and rubd downe.
Their drinking troughs kept cleane.
Fresh straw on the dunghill.
The dusting of pullen.
To take away the lets of hens laying.
Beasts to be prouided against as enemies to poultrie.

And to the end you may not lose any of them, you must cut off the great feathers of one wing from such as vse oftentimes to flie ouer wals, that so also by this meanes you may keepe them out of your gardens: for they would take it vp for a custome, and it would keepe them from laying: and for a surer preuention of the foresaid mischiefes ouer and aboue that which hath beene said (for it is nor good to clip the wings of cocks or capons) you must fasten and set rowes of thorne fagots vpon the tops of the wals of the said gardens and all other places else-where.

The wings of cocks and capons must not be cut.

The broodhouse shal be built aside from the farme place, far off from the lodging of the chiefe-lord, because that such birdes are lothsome, doe foule euery thing, and spoile whatsoeuer houshold furniture: turned toward the east, from the winter & northern quarter, neere vnto the ouen of the kitchen if it be possible, to the end that the heate thereof which helpeth them to lay, and the smoke which is very wholsome for the pullen may reach euen vnto it.

The brood-house.

It shall haue a little window right vpon the east, by which the pullen may come forth into the court in the morning, & go in againe at euening: it shall be shut at night, to the end they may nestle themselues more

more ſafely from the danger of ſuch beaſts, as are apt to offer them wrong: without, and on the ſide next the court they ſhall haue prettie ladders, by which the pullen may flie vp vnto the window, and into their houſe to rouſt and reſt themſelues for the night time. This henhouſe muſt be well laid with lome, & ſmoothed both within and without, to the end that cats, fulmers & ſnakes, & other dangerous beaſtes, may not come neere vnto the pultrie: and that neere vnto this henhouſe, in the middeſt of the court there be certaine trees or arbors for ſowre grapes, to the end that pullen may haue ſhadow vnder it in ſommer, and that chickens may haue couer and defence againſt the kite, the owles, and other ſuch rauenous birds. It is not good that they ſhould ſleepe vpon the plaine floore, that ſo their ordure and dung may not hang vnto their feete, for thus they would growe to haue paine in their feete and to become goutie. For this cauſe you muſt ſet all along the hen-houſe a foote higher then the floore, and two feete one from another ſquare pearches not round, becauſe that if they ſhould be round, the pullen could not ſit faſt vpon them. Right ouer againſt the henhouſe, and a little way off from it, you ſhall prepare a dunghill, for the benefit of the pullen after this ſort and manner. Caſt a great deale of earth into a great hole of purpoſe made for ſuch an end, which you ſhall beſprinkle with the blood of oxen and other beaſtes kild onely for the hide, afterward you ſhall caſt a reaſonable quantitie of oates vpon the ſame, and you ſhall turne the ſaide earth the vppermoſt, lowermoſt. In a ſmall time there will be ingendred ſuch a great quantitie of wormes, as that the pullen ſhall haue picking worke there for a long time, and the graſſe which ſhall ſticke there will correct the fat which they ſhall get by the wormes which they haue picked. And when you ſhall ſee the prouiſion of wormes to faile, you may begin againe your watering of the earth with blood, and ſowing of oates thereupon as at the firſt. Some to haue fat capons and of a pleaſant fleſh, when the mulberies are in ſeaſon doe plant mulberie trees in their courts, for capons and all other manner of fowles which feede vpon mulberies, become maruellous fat and of an excellent taſte and verdure.

To euery dozen of hens one good cocke is ſufficient, howſoeuer thoſe of former daies doe allow one to euery fiue: and he muſt not be of colour white nor yet gray, but red, tawnie, or blacke, his body well compact, his creſt or combe verie vpright, red, thicke, not notched, toothed or gaſht with cuts, a well raiſed necke and high, the pinions and flight of his wings great, his eares great and very white, his bill ſhort, thicke and crooked, his eie blacke in a circle that is red, yellow, or azure; his wattles of a roſe colour, ſtanding of a white and red mixture, the feathers of his necke long, golden and changeable, his legs very ſcalie, thicke and ſhort, his claws ſhort and faſt, his ſpurres

ſtiffe

ſtiffe and ſharpe, his taile vpright, groſſe, thicke and crooking backward ouer his head.

The tawnie or reddiſh hen, in like manner is the beſt, and that which hath the feathers of her wings blacke, though ſhe her ſelfe be not altogether blacke: for the graie or blacke colour is but little woorth, becauſe they be hard to bring vp, & ſparingly giuen to laie egges, and yet moreouer they be ſmall, alwaies leane, vnhealthfull, and their fleſh of ſmall reliſh. The ſtature of the hen muſt be indifferent, her head great, her combe vpright and very red, her body great and ſquare, her necke thicke, and breſt large: the dwarfe or little hens do lay oftner then the other, but they are not ſo fitto be ſet on egges to bring foorth chickens: the greater hens are not ſo giuen to lay: wherefore hennes of middle ſiſe are to be preferred before the other, foreſeene that they haue large wings, and their bodies thicke ſet with feathers, and if they haue fiue clawes as the cockes, they are more wilde and not ſo tame as others. The henne that hath ſpurs ſpoileth her egges, hatcheth not ſo ordinarilie, and ſometimes eateth the egs ſhe ſitteth on. The hen which is giuen daintily to affect and feede vpon grapes, being the thing that keepeth her from laying, will be kept from ſeeking after and eating of them, by giuing her the berries of the wilde vine: for this doth cauſe ſuch a roughnes or edge in her, as is in thoſe that haue eaten ſowre fruites. The henne that is too fat, or which hath the fluxe of the belly laieth winde egges. The yoong hen is nothing skilfull either to ſit or to lead chickens: wherefore you muſt fat the hen with ſpurres and the chauntreſſe or crowing hen, and her that ſcratcheth and allureth the other hens by clocking as the cocke is woont to do, and that by plucking firſt the greateſt feathers of her wings, and giuing for to eate great ſtore of millet, barlie and paſte cut in gobbets, bruſed acornes, bran mixt with potage, the huskes of rice, pannickle and otes, or the crums of wheat bread ſteept in the water of barlie flower, and to keepe her in a cloſe place where ſhe cannot ſtirre, and to pull the feathers of her head, thighes, and rump. Such hens thus fatted by the hands of a man, may be recouered at any time of the yeere, but the fleſh is not of ſo good reliſh as when they grow fat going abroad at their libertie, which thing happeneth and falleth out more commonly at one time of the yeere, then at another, the very right & naturall ſeaſon of their chiefe fatting being in the moneth of Ianuarie and February, for indeed in theſe moneths hens are nothing inferiour vnto capons. The hen that is too fat, ſhalbe made leane by mixing of fullers earth with her water, and of the powder of a ſoftned bricke in her meate. And if ſhe haue a looſe bellie you muſt giue her for her firſt meate, the white of an egge roſted and beaten in a morter with the double quantitie of bulleis. And for the madde hen which breaketh her egges and eateth them, you muſt caſt

The markes of a good hen.

The hen with ſpurs.

The daintie mouthed hen.

The ouer fat hen.

The mad breaking hen.

caſt alablaſter vpon the yolke of an egge, ſo long as till it be harde therewith, and ſo to make this to ſerue (being faſhioned like a ſhell) for her neſt: or elſe to make an egge of alablaſter or fullers earth, and to put it in her neſt, and to leaue her no more but that only egge after ſhe hath laid. Vnto a yoong hen, which falleth to clocking, you muſt take one of her ſmall feathers and thruſt it through her noſtrils, for it is not for a yoong hen to do any thing but lay egges, and for the olde to ſit. Our huſwiues (in that point too ſeuere and iniurious) do plucke away all their feathers from vnder their wings, euen all ouer their bellies, and do therewithall caſt them into the water to coole their heate withall, or elſe they keepe them faſting fower daies together, in a chicken coupe. And if you be not diſpoſed to keepe a hen to brood, you muſt by and by, or within two daies after that ſhe hath brought foorth her yoong, let her foorth againe to haue the cõpany of cocks, to the end ſhe may forget them and begin againe to laie: and therewithall to rub the pulled belly of a great and fat capon and one that is yoong, with ſtinging nettles, and after to deliuer him the chickens to broode and leade.

A young hen clocking.

A young hen good only to lay egs.

An olde hen is good to ſit.

To take awaie a hens deſire to ſit.

Capons to brood and leade chickens.

The hen is ſubiect to the ſpots of the eies when ſhe is olde: to the rheume and diſtilling of wattrie humours at her noſtrils, by hauing taken colde, or hauing drunke froſen water, or at leaſt ſuch as was too cold, or by reaſon of the henhouſe being left open in the night, or by hauing rouſted vpon the trees in the open aire, or finally by not hauing found the houſe open, or ſome other couert to runne vnder in the time of raine, Vnto the looſenes of the belly, when their meate is too thinne, or when they haue eaten ſome herbes apt to worke the ſame, or when the hen houſe hath beene open all night. Vnto the pippe of the toong, either for want of drinke, or for drinking troubled and filthie water. To fleas and vermine when they ſit, or when they haue not wherein to tumble and roule, or to make themſelues cleane, or when their dung is let to continue a long time together in the houſe: and to the bitings of venemous beaſtes which haunt the dunghill and old wals, as the ſcorpion, ſnake, ſpider, ſhrew, lizardes, and newtes of the wall.

The diſeaſes of old hens.

The hen pippe.

Fleas and vermine about hens.

For the ſcab and inflammation of the eies, you muſt bath them in the water of purcelane, or in womans milke; and for the ſpots you muſt rubbe the eie with ſal ammoniacke, cumin, and honie braied together in a morter, and that aſmuch of the one as of the other, except you haue the skill to take them vp, or to cauſe them to be taken and lifted vp with a needle.

Phyſicke for hens.

For the rheume you muſt put a feather croſſe their noſtrils, and warme their water, and ſometimes chafe their feete, eſpecially little and yoong pullets, which are woont to be wrapt in cloth a certaine time for the ſame, or elſe in feathers, and then put into a pot and ſet

For the rheume in hens.

in

in a warme ouen, or neere vnto some fire in some fit and conuenient place. And if the rheume or matter of the stuffing of their nostrils be setled in some place, as vnder the eies, or towards their bill, you must launce the impostume gently, and giue passage for that to come foorth, which is therein contained, and put in place a little brayed salt.

For the looseness of the bellie in hens.

For the loosenes of the belly, some make them meate of the husks of barlie steept in wine, and incorporated with waxe: and some doe mingle with their water the decoction of a pomegranate or quinces.

For costiuues in hens.

And if that pullaine be costiue, especially the yoonger sort, they are prouoked with a wilde oate: and some vse to pull off the feathers of their rumpe, and vpon the inside of their thighes, to the ende that their dung may not be long detained and kept within their bodies, because that so it might stop the passage: and as for hens it is sufficient to put hony into their water by themselues.

To take the pippe from hens.

For the pippe, some vse to wash their bill with oile wherein hath steept a cloue of garlicke: and some make them to eate stauesacre amongst their meat: and for to cure the yoonger sort, some put them in a sieue made to dresse fetches, or darnell, and perfume them with pennyroiall, orgaine, hyssope and line: and some do holde the head of the pullet ouer the fume, the bill gaping: and in case of extremity, to take it quite away from them, some do vse to open their bill, drawe out their toong very gently and softly, and after with their naile raise the higher part, and draw downe to the end or lowest part thereof, the white which is seene to grow vpon the top of the toong; and after it is raised vp and rooted out, without any breaking of skin, they rub the toong with spettle, or with a little vineger, or else they touch it with a brused cloue of garlicke.

Against fleas and vermine.

For fleas and vermaine they must be washed in wine, wherein hath beene boiled cumin and stauesacre: or else in water, wherein haue boiled wilde lupines.

Against the bytings of venemous beastes.

Against the biting of venemous beastes, you must annoint the place with oile of scorpions, and applie vpon it some mithridate, and further cast some small quantitie of treacle into their water pot, and cause them to drinke.

Against beasts that eate pullaine.

For the danger of beasts, especially of catts and fulmers, which come in the night time vnto the henhouse to eate the hens & egges, old writers do giue counsell to cast at the entrie of the doore, and to scatter thereabouts bunches of rue, as also to put some tender sprouts of the same vnder the wings of the foule, or else to besmeare about the wals of the hen-house, and round about the window, the gall of a cat or of a foxe.

Against foxes.

Furthermore to keepe pullaine from foxes that they do not eate them: it is good now and then to mingle amongst their meate the

flesh of a foxe sodden and shred into verie small pieces : for as some say their flesh doth keepe and retaine a certaine smell thereof, which is the cause that foxes dare not come neere vnto them.

The laying of hens.

Hens begin to lay in Februarie and March, and some of them in those moneths being part of their first yeere. They which begin to lay at a yeere and a halfe, or at two yeeres are better to be liked. And then they must be very well fed, and that somtimes with oats & fenugreeke for to heate them. And if you be desirous that they shoulde lay great egges (for commonly the fattest hens lay the smallest egges) mixe and temper fullers earth among their meate, or else put pouned bricke among bran, and temper them togither with a little wine and water, and make them an ordinarie meate thereof: or else make them all their meat of barley halfe boiled with fetches and millet : or else perfume them in the night with brimstone, for this will keepe them sound also : if you giue vnto them yoong nettles chopped and boiled with bran, they will lay great store of egges.

To haue egges all winter time.

They leaue laying about the third of Nouember, which is at such time as the colde beginneth : but if vpon curiositie you would keepe by themselues some of the faireſt to lay egges all winter long, you must feed them with tosted bread steept from euening to morning, and giue them to their breakfast: and for their meate in the day time and at night to cast them some little quantitie of oates, barley, or wheat, which doth warme them, or some mustard seed, which aboue all other things causeth hens to lay egges good store, that is to say, in the sharpe cold times of winter, which thing you shall prooue verie true by experience if you make triall of it : or else to feed them with earthwormes, which will also cause them to lay egges in great number. You must not let them sit presently after their first yeere of laying : and when they are past three yeeres olde, you must eate them : you must also dispatch and make away with those that are barren and lay not at all : and as for those that doe lay verie much, you must change their nests often, and marke their egges to set them in time if it be possible. When they are casting off their feathers, otherwise called of the common people mouting, you must not suffer them to goe out of the place whereinto you haue shut them, except it be to refresh them when it is verie faire, and then to keepe them that the eagle and kite doe not fall vpon them.

The time to set hens.

It is vsuall to set hens the second yeere of their laying, and so the third and fourth, and so let any set many hens at one time, and vnder their straw some pieces of iron for feare it should thunder, or else some bay-leaues, or the heads of garlicke, or else some greene grasse: for some say that this is good against the pippe and the monstrous fruit. They are put there in the growth of the moone, after the twelfth day of the new moone vntill the fourteenth saith *Florentine:* and *Co-*

lumella

Iumella ſaith, from the tenth vnto the fifteenth, to the ende that the hens may hatch in the next new moone, for to that ende they ſtand not in need of any moe daies then one and twentie. And the neſts of theſe hens muſt be made in the bottome of a tunne or pipe, to the ende that when they come off, they cauſe not any thing to fall or roule. Some perfume the ſtraw that they are to ſit vpon, before they lay the egges therein, with brimſtone, to keepe the hen for hatching before her time. And you ſhall ſet vnder her the egges that you haue marked, and of thoſe the faireſt and neweſt, and if it be poſſible thoſe of her owne. And looke that they haue beene laide ſince the ſeuenth of Februarie, and before the two and twentith of September: for ſuch as are laid at any other time are nothing woorth, no more then thoſe which were firſt laid, or yet thoſe which were laid by the hen without the helpe of the cocke: and there muſt alwaies care be had that they be odde, that is to ſay, in Ianuarie fifteene, in March nineteene, and after Aprill one and twentie. The greateſt part of the inhabitants of *Lyons* doe admit of no other number then three and twentie. After the ſecond of October they ſet not any more, neither indeed ought they, if it be not in ouens according to the vſe of the inhabitants of *Malthe* and ſome of thoſe of *Beauceron*: but hens are too much puniſhed, and put to paine to breed and bring vp chickens in winter. As alſo there is a common opinion receiued, that after mid-Iune, hens are ſmaill woorth and cannot increaſe ſo rightly, and well to the purpoſe.

Ouens to ſet egges in.

If curioſitie draw you to ſet egges vnder hennes which be not their owne, as thoſe of the gooſe, peacocke, or Indian hen, or elſe of duckes, then let them be put vnder the hen ſome ſeauen or nine daies before, and after adde thereto of her owne ſome ſuch odde number, as hath beene ſpoken of before. But and if they be feaſants egges, you neede not to ſet the hen any ſooner vpon them, then and if they were her own, for they require no more time to be hatcht in: and if you would haue them all henbirds, then ſet ſuch egs as are more round and blunt, for the long and ſharpe pointed ones are commonly cockbirds.

To ſet egges of other birdes vnder hens.

To haue henbirds, or cockbirds.

Some are carefull not to put one after another into the neſt, but ſet them in rowes in a woodden platter, and thence let them ſlide downe into the neſt verie ſoftly. And care muſt be had that neither cockes nor any other hens may go in to ſit vpon them, and to that end twiſe euerie day to ſet meate and drinke ſo neere vnto the hen, as that ſhe need not riſe for to feede herſelfe: for if but for her meat, ſhe once caſt off her care of them, it will be much adoe to get her to returne vnto them againe, if ſhe be not a free and verie kinde hen: If the hen haue ſmall care to returne vnto her egges to ſit vpon them equally, it will be good ſometimes to turne them ouer ſoftly, when ſhe ſhall be from her neſt.

A ceremonie obſerued in ſetting of egges.

The hens meat and drinke muſt be ſet within the thing ſhe ſitteth in.

The impatiencie of women.

There are some women that cannot staie to the end of the hatching, but about the fourth day after the setting of the hen, they will be heauing euerie one of them vp one after one to looke vpon in the cleere sun-shine, and if they see not bloodie streames or threads within them, they cast them out and put vnder others in their places. And in like maner at the one and twentith day, if they finde that she stayeth from hatching, they take off the hen. But good sitting hens will not returne any more to their nests, after that the egges haue beene touched. Likewise the good huswife saith, that as for the egges which are vnder the hen, they ought not to be touched till they be hatched. Likewise they must be well chosen and viewed in the sunne betwixt both her hands, before that they be put vnder the hen. Such as doe any thing doubt that the egges are not all good, and that the chickens cannot come forth by reason of the hardnes of the shell, must not faile to bath them about the eighteenth day in a hollow dish and warme water: and to take away such as swim aboue the water, putting the rest vnder the hen againe. But you must not force the hen to rise off the nest in your thus doing.

To trie the egges that must be set.

You shall greatly pleasure the hen, if when the chickens begin to chirpe, and there be found some which will not let the chicken come foorth by reason of the hardnes of the shell, that then you helpe her to breake the same: howsoeuer indeed this is the part of a good conditioned hen, as also to flie at your face if you come neere to her, after she hath once heard them cheape or chirpe vnder her.

The hen pippe.

The little chickens newly hatched must be put vnder a sieue, and lightly perfumed with rosemarie, for to keepe them from the pip: and for the space of two daies you must not giue them any thing to eat, but put them vnder some hen that hath not many, and which is not either of partridge colour or wilde and vntamed, that thereby they may be kept warme whiles the other are in hatching: or which is better, to put them to follow some capon so soon as they be hatched rather then any hen: for by that meanes they will be better defended both from cold and rauenous birdes, as also better fed, besides that hereby the hen will be the fitter to fall to laying of egges againe. It is true indeed that there must choise be made of a sound and courageous capon, to plucke away his feathers from vnder his belly, and to nettle him with the strongest and most stinging nettles that you can get, and after to make him drunke with bread steeped in wine, and to put him vnder a basket made of Osiers, with his broode of chickens, and so leaue him there sometime, to the ende he may fall in loue with them. So soone as he shall be at libertie he will beare them vp, keepe them, leade them, and become a more foolish, doting or true louer of them, then the hen her selfe would haue beene: howbeit the naturall dame is vere carefull, and giuen to keepe them

them vnder her wings very wisely, without doing them any manner of harme or hurt. When as therefore they be two daies old, you must crumble them some soft bread and cheese, or else some barlie meale, and garden cresses, softened and infused in wine and water, with a few of the leaues of leekes chopped very small, and a little sodden, and this will be good for them against rheumes and the pip. And after this time for the space of fifteene daies they must be kept vnder a cowpe with the hen or capon: and then at the end of those daies to let them run about both leader and followers, giuing them still the same nourishment to feede vpon. And if you haue many sitting hens that haue hatched at one time, giue and put the chickens of the one vnto another of the eldest and most vsed to leade, or else to a capon, as hath beene said, and let the yonger henes returne againe to the cocke: but see that you put not aboue fiue and twentie or thirtie vnto any one hen, because she will not be able to couer or broode aboue that number. Againe there must good care be had, that the hen which leadeth them be not curst and brutish, that so she may not hurt them as she is scratching, or set them in a heat by flying, neither yet that she be giuen to much climbing, or gadding into such places as her litle ones cannot follow her into. Wherefore it shalbe good not to suffer them to go so soone to the court-yarde, but rather for the space of fortie daies to keepe them that they goe not from the place where they were hatched. You must likewise beware that the snake doe not breathe vpon or hisse at them: for the smell of such breath is so pestilent vnto them, as that it generally killeth them all. The remedie is to burne oftentimes neere vnto their cowpe, harts horne, galbanum, or womens haire: for the fume or smoke of these doth driue them away.

To hatch chickens without the heat of the hen.

It is a paine to goe about to hatch chickens without the heate of the hen, and although the thing may be done, yet it is not so certaine nor so profitable. They are set on a row, the sharpe pointed end vpward, in an ouē very meanly warme, & vpon warme hens dung, which must be renewed euery sixe daies, and ouer and vnder them thus set, some doe put bags of feathers, and they must be stirred now & then: after the eighteenth day they must be bathed in warme water, & the one and twentith, they must be holpen to breake the shell. Againe it may be done otherwise: the same day that you set a hen, (to the ende that you may the better remember, because it is not so easie to number the daies as to tell the egs) you may take as many egs as you haue set, and put them vpon bags full of hens dung (well dried, sifted and compassed about with downe, or such soft feathers as are on the inside of the thighes) and made after the manner of nestes. And againe, others doe make a bed of the saide downe vpon the bags, and vpon this bed they ranke their egs, as hath beene said, and after couering them with other downe and bags aboue, in such sort as that the downe

and bags lie close round about and euery where touching the egs: which done, after three or fower daies they must be turned once euerie day, and that so softly and nimbly as that they may not hit one vpon another. And at the twentith day (being such time as the hens begin to picke the egge shels) you must helpe to make way for this your broode to come forth, and after put them to some hen that hath but a few. But there is nothing beyond and besides naturall inclination and disposition to be attempted in any thing.

To know a good egge.

The hen will sit all winter as well as in sommer, if she haue meate made of bran, mixt with the leaues and seede of drie nettles.

You must make choice of such egs as are of black pullets, as such as are more wholesome, daintie, full and substantiall, then those of other hens, by how much they want of being so old: let it not be aboue two daies old, let it be white and long, according to the common verse,

The egge is good and for delight:
That's long and new, and white in sight.

To know if the egge be new, you must make such triall as we haue set downe to be vsed, to prooue and know such as are good to be set.

How egs may be kept in winter and sommer.

The huswife that maketh account to sell egges, must in winter keepe them warme vpon strawe, and well couered: and in sommer coole in bran, according to the aduise of old writers: but (be it spoken vnder correction) I am quite of a contrarie minde: for the strawe is coole and the bran hot; adde further, that egges kept in bran in sommer doe corrupt the sooner. They which doe couer and powder them with salt, or lay them in brine, doe impaire them, and leaue them not whole and full, which will be a hinderance in the sale of them: and there is no doubt but that the egge doth take some bad relish also by that meanes. The sellar is a good place to keepe them in both winter and sommer.

I doe not intend here to make any discourse, which of the two was first made, the egge or the hen. Looke for the deciding of this curious question in the end of *Macrobius*, and in *Plutarch* his *Opuscula*. And you shall learne a great deale better of *Aristotle* and *Plinie*, then of *Hippocrates*, how the chicken is made within the egge of the white, and nourished by the yelke: seeing that the yelke is of more easie digestion then the white.

To geld cockvels.

As concerning the cutting of cocke-chickens, it must be done shortly after that their dam hath forsaken them, & that they run not cheaping after her, but begin to crow and to fall in loue with pullers, for if they scape the first yeere and halfe, then there is no order to bee taken with them, and you must take the best bodied, and those which are best thriuen and set with feathers, and yet not growne to that full perfection and naturall growth of feathers which cocks are garnished withall: for after you haue made choise of such as shall serue for the

benefit and leading of your hens, to keepe them, as those which are the best made and most bold: you must cut the other, for to feed and fat either in the cowpe or in the chaffe house.

To fat capons.

Some men (as for example at *Mans* and in *Bretaigne*) doe put out their eies, as they doe vnto gosslings, and giue meate of corne halfe boiled, and of paste well crusht and braked, and made into gobbets, and thus they become fat within fortie daies at the most: but they must be well looked to, and haue all their feathers pulled from about their heads, to the end to keepe them from vermine.

Capons of Mans and Bretaigne.

As concerning other particulars of the hen, of the egge, and of the medicines which the husbandman may draw from them for the good of his health.

The hen will hatch chickens of diuers colours, if she sit vpon egs drawne with variable and diuers or painted colours, as also she will hatch pullets of very pleasant colour to behold, if you make her tread by male pigeons or partridges, or feasants. To be breefe, you shall haue pullets, pigeons, feasants, and such other kindes of foules of diuers colours, if you prouide aboue, beneath, and on euery side of their cowpes, or other place where they make their abode, places of receipt and couertures, of such colour as you shall wish them to be of.

Chickens of diuers colours.

Hens will lay great egs, if you pound brickes and mixe them with bran and wine, bray them all very well, and giue them to the hens to eate: or else make a fine powder of bricke, mixe it with barley bran, and giue it them to eate: some for the verie same purpose doe mollifie the fullers earth that is red, and mixe it among the hens meate.

Great egges.

If by the space of fowre daies, or seuen at the most, you steepe an egge in very strong vineger, you shall so soften the shell, as that the egge may easily be so handled, as that you may draw it through any sort of ring that you shall weare vpon your finger, and thrust it into such a viole, as you your selfe would wish to haue it put in: likewise you shall bring it to his former shape, if you steepe it in coole water. In like maner an egge steept in aqua vitæ for some space of time doth quite waste and spend it selfe.

To make egges soft.

If you would keepe egges long that they should not breake, set them so orderly in baskets, as that they may stand right vp, and that the end which is sharpe pointed may be vpward, and by this meanes a man may carrie such burden of them, as shall be laide vpon him, without breaking any of them. Likewise this is a thing very true and well approued, that an egge hath so firme and strong a frame, as that no man be he neuer so strong, is able to breake it betwixt the palmes of his hands, being taken and holden long waies.

How to keepe egges.

It hath beene obserued of a long time, that the egges laide after the new of the moone in the moneth of August, or in the wane of the moone in the moneth of November, as those likewise which are laide

What egges will keepe best.

on the day of the Natiuitie, or on the day of the Aſcenſion, are laſting and durable, and not eaſily corrupted. Whereof there cannot be deuiſed any other reaſon, than that in ſome of them the ſhell is made hard and not to be pierced through of the aire, by the coldnes of the time: and in the other, there is a moſt quicke exhaling and expending of that which might be corrupted within the egge, by the heate of the time, and ſeaſon then being.

The ſtone in a capons ſtomack.

Some finde within the ſtomacke of a capon, a ſtone of the bignes of a beane, which maketh a man ſtrong and luſtie vnto the act of carnall copulation: and withall maketh him louing, fauourable, and gracious amongſt women.

To roſt an egge without any fire.

Some holde it for an vndoubted trueth, that for want of fire, an egge may be roſted, being turned and whirled about a long time in a ſling.

An egge written vpon.

An egge will take any forme of character that you will, on the inſide thereof, if you write vpon the ſhell with inke made of galles, allome and vineger, and after that ſuch writing is dried in the ſunne, put the egge in brine that is very ſtrong, and after boile it and take away the ſhell, and there you ſhall finde the writing.

An egge lifted vp into the aire.

The ſhell of the egge emptied all out, and filled with Maie dew, and laide foorth afterward in the ſunne ſhine at noone day, is eaſilie lifted vp into the aire, without the aide or aſſiſtance of any other thing.

The applying of a hen, to draw foorth venome.

An egge armed with threed, and put into the midſt of a hot burning fire, keepeth the threed from burning at all.

A hen ſlit in two, and applied all hot vnto the bitings of venemous beaſts, draweth out the venome thereof: or otherwiſe, if you take and plucke the fundament of any liuing fowle very bare, and applie it to the parts offended by the ſtinging of a ſnake, or to the carbuncles and buboes riſing of the infection, doth the like. And this ſheweth that a hen hath a naturall contrarietie againſt poiſon. And this may further be knowen, becauſe that hens doe eate venemous thinges, as toades, vipers, ſnakes, aſpes, and other ſerpents without their taking of any harme thereby.

The innermoſt skin of the hens ſtomack, againſt the fluxe of the bellie and grauell.

The inward membrane of the hens ſtomacke or maw, as alſo of a capons dried and powdred, is a ſoueraigne thing againſt the fluxe of the belly, grauell in the raines, and difficultie to make water.

The broth of a hen good to looſen the belly.

The broth which is made of a hen or old cocke, is good to looſen the belly: and yet more effectually, if one ſtuffe a hen with mercurie, germander, wilde ſaffron, and ſuch other herbes: alſo the broth of a hen or cocke, is ſingular againſt euery diſeaſe, if ſhe be ſtuffed with herbes appropriate and fit for the cure of the ſaid diſeaſes.

The ſtones of a capon.

The ſtones of a capon nouriſhed and fed with meate ſteeped in milke, are ſoueraigne for the ſpeedie reſtoring of them which are

worne

worne away and consumed by continuance of long sicknes.

The fat of a hen washed in rose water, is good for the chops and clifts in the lips, as also for those which happen in the hands by reason of winter colde. *The fat of a henne.*

The gall of a hen or capon dropt into the eie, doth take away the spots of the eies, if you mixe it with the water of eiebright. *The gall of a hen.*

The dung of a hen dried and finely powdred, and applied to the eies which haue lost their haire, causeth the same to come againe, if you mixe it with honie, or oyle of linseed: if it be tempered with oile of roses and applied, it is good against burnings: being braied with vineger and hony, it cureth within an houre such as are neere strangled by eating of mushrums, for it maketh them to vomite a thicke and flegmatike humour. A Physition in *Galens* time did cure al maner of old colickes, giuing the sicke to drinke of this dung with hypocras made of hony and wine. *Hen-dung.*

A hard rosted egge eaten with vineger, staieth the fluxe of the belly, if you mixe with it the powder of harts horne. *A hard rosted egge.*

A cataplasme made of the yolke and white of an egge well beaten with the iuice or water of plantaine and nightshade, applied vnto burnings, doth quench and extinguish them. *The yelke and white of an egge.*

The white of an egge beaten, and with the powder of frankincense, masticke, and galles applied vnto the browes, doth staie the bleeding at the nose. *The white of an egge.*

The yolke of an egge swallowed alone staieth the cough and such other distillations as fall downe vpon the lungs and other parts of the brest. The yolke of an egge which is laide in the full of the moone, doth clense & take away all maner of spots appearing in the face. The thin membrane or skin which is on the inside of the egge shell dried, finely poudred & mixt with the white of the egg, doth heale the clifts of the lips. The egge shell made into ashes and drunke with wine, doth staie the spetting of bloud, and is good to whiten and clense the teeth, to comfort and incarnate the gums. The egge shels out of which there haue come chickens, being powdred & mixed with white wine, do breake aswell the stone of the reines as of the bladder. The white of the egge mixed with vnquencht lime, the shell of an egge burnt to ashes, old tile well powdred, and bitumen, maketh a cement very excellent to glue and ioyne togither againe the broken partes and peeces of glasses. An egge spred vpon wood or any kinde of garment doth keepe the same from the burning of the fire. *The yolke of an egge.*

The sixteenth Chapter.

Of Geese.

THe countrie farme being for the most part vnprouided of the benefits and easements of water, especially running streames, is not

not so fit to breed and nourish geese, except for priuate commodities sake it fall out that the farmer do make him some fishponds or standing lakes of his owne, and at his owne proper costs and charges. For the goose as wel as the ducke doth loue to swim, and to coole, plunge, and tumble her-selfe euery daie, neither doe they tread almost anie where else but in the water. There is great profite, and there is great losse also thereof: profite, because the charge of keeping or feeding them is not so costly, as their watch and warde is good and gainfull, being indeed better then that of the dogge, as hath beene shewed long agoe by the geese of the Capitoll in Rome, who awaking the souldiers and standing watch, were the cause that the enimie was repulsed and driuen backe: againe, she declareth when winter draweth nigh by her continuall squeaking and crying, she layeth egges, hatcheth gosslings, affoordeth feathers twise a yeere for the bed, for writing, and for shaftes, which are gathered at the spring and Autumne: The losse or discommoditie is, because they craue a keeper, for otherwise they will bruse and knap off the yoong sciences of trees, the herbes of the garden, and the shootes of vines, as also iniurie and hurt the corne when it is shooting and putting foorth his stalke, as well by breaking it, as by dunging vpon it. In such sort as that in the countries where wilde geese (which are fowles keeping togither in flockes as well as cranes) do make their greatest and principall haunt, as in Holland, Heinalt, Artoys, and otherwhere, there is found sometimes a great peece of corne all wasted and destroied in lesse then halfe a day: and the house or tame geese doe no lesse harme, if they be let alone and suffred to doe it, for they pull vp the corne by the roote; besides that, where as they dung, there will nothing growe for a long time after.

Geese loue to bathe and tumble themselues in the water.

The goose is a birde of great profit and disprofit.

Wilde geese.

The best goose and gander is of colour either white or gray; and she that is of a mixt or two colours, is also of an indifferent goodnes: notwithstanding the white doth abound more in laying of egs then the others, and hath also a better flesh, and it is good to make choise of such a one as hath the knee, ioints and space between the legs great and large. The goose goeth ouer her laying time thrise a yeere, if she be kept from sitting and hatching; but indeede it is a great deale better when she is set vpon egs, because the yong ones thereby brought foorth doe nourish better then the egs, as also doe increase the flocke: And at euery laying time some lay twelue egges and moe sometimes, others but fiue at the first, fowre at the second, and three at the last, and these three seuerall times come betwixt the first of March and the last of Iune. And they doe neuer forget the place, which you shall haue brought them to, at the first to lay in: so that looke where they lay their first egges, they will lay all the rest, and in the same place also set them if you will. Likewise you must not let them lay out of their

The memorie of a goose.

walke

walke or fold, and for that cauſe you muſt keepe them ſhut in at ſuch time as when you thinke they will begin to lay: and if you take not vp their egs, they will begin to ſit ſo ſoone as they haue their full number: but and if you take them away as they be laid, they will not ceaſe laying till they come to an hundred, yea two hundred egges, yea ſo long and ſo many, as ſome ſay, as vntill their fundament ſtand gaping and open, they not being able to ſhut it, becauſe of the effect wrought by their much laying.

To ſet geeſe.

Geeſe loue not almoſt to ſit any but their owne egges: and at the leaſt you muſt ſee that the greater part that you ſet her on bee her owne. And ſhe is not commonly to be ſet vpon fewer than ſeuen or nine at the leaſt, nor vpon moe than thirteene or fifteene at the moſt, and you muſt looke ſhe be ſet vpon an odde number. And who ſo putteth vnder the ſtrawe whereupon ſhe ſitteth ſome nettle rootes, doth preuent that the goſlings when they be hatched, are not ſo ſoone hurt. Some geeſe in a good and fauourable weather do hatch in fiue and twenty daies at the moſt. And neere vnto the place where ſhe ſitteth you ſhall place ſteeped barley, in ſuch quantity as that ſhe may take it out of much water: for ſhe loueth not to leaue her yong ones, for ſometimes ſhe will rather die for hunger, and to the end alſo that ſhe may not ſtand in need to ſtirre or raiſe her ſelfe, except a very little for to feede, ſeeing that thus her egges might take cold. And furthermore call againe to minde that which hath beene ſaid of the hen: you may alſo ſet hennes vpon geeſe egs, and that with better ſucceſſe than if they had beene ſet vnder the gooſe her ſelfe, but then not aboue ſeuen or eight.

The ordering of goſlings.

The young goſlings muſt abide ten daies ſhut vp with the gooſe, and be fed within with barley meale tempered with honie, branne and water: and now and then with lettuſes and tender and new ſow-thiſtles: after that with millet and wheate ſteeped and ſoftened. And at the tearme of theſe daies to acquaint and accuſtome them to the medowes with their dame, but let them be fedde before they go thither: for this bird is ſo rauenouſly giuen, as that through ſharpneſſe in their hunger, they pull the graſſe and yong ſprouts of trees with ſuch force and violence, as that ſometimes therewith they break their own necks. They muſt be kept from nettles and prickes, from the bay tree and mugguet, for they be bane vnto them: in the houſe from woolues and foxes, cats and weaſles.

How to fatte goſlings.

Goſlings intended to be fatted, muſt be choſen when they bee fower monethes old, and then the faireſt and greateſt muſt be choſen: they muſt be put in a cowpe in ſome ſellar vnder ground, or in ſome dark and warme place: where the yonger ſort is to be kept thirty daies, and the elder ſort two moneths. They muſt haue giuen them thriſe a day barley and wheat meale tempered with water and honie: for the

the barlie maketh the flesh white, and the wheate maketh them fat and maketh a great liuer. Some doe make them meate with new or drie figs and leauen, and giue them drinke abundantly, vsing to rowle their meate all ouer in bran. Others pull the feathers of their head and bellie, and also the fat feathers of their wings, and doe also put out their eies for to fat them: aboue all things you must not pinch them in their meate or drinke, because they are great eaters, and giuen much to drinke. Thus you shall haue them fat at the most within two monethes.

Meate for geese.

The common meate of geese is all manner of pulse, tempered with bran and warme water. Many do giue them nothing but bran somewhat grossely boulted, and lettuses, succorie and garden cresses for to get them an appetite, and they set them this meate morning, euening and at noone, and for the rest of the day they send them to the medowes, and to the water pooles, vnder the custodie of some little small Iacke, who may keepe them from going or flying into any forbidden places, as also out of the nettles & briers, as also from feeding of henbane, which some call the goosebane, and from hemlocks which set them on such a deepe sleepe, as that they die therewithall.

Ancient writers haue not permitted moe then three geese to one gander, but we doe freely allow sixe, and cause to be taken from them the downe or saft feathers on the inside of their thighes, and the great feathers of their winges to write withall in March and September: for the quils of the dead goose are not so fit for all vses, no more then is the wooll of slaughtered sheepe, or those which die of themselues. And seldome doe we see much fewer then thirtie goslings in one roome, howsoeuer our predecessors would not put any moe then twentie together: for the greater doe beate the lesser and hurt them, and for this cause they must be put into the goosehouse, and kept asunder with hurdles, in such sort as sheepe are kept asunder, and they must haue new straw oftentimes, and that such as is cleane and very small: for their house must bee alwaies drie, and oftentimes made cleane for feare of vermine.

The quilles of dead geese are not so good as those of the liue.

The diseases of geese.

And moreouer they are subiect vnto the same diseases and casualties that hens be: and therefore they must be tendred after the same manner. Which that I may not repeate, I would haue you to search it out in the places concerning the same.

The gosling though she be of hard digestion, in as much as she is a water fowle, and also abounding with superfluities: yet indeede the goslings which exceede not two monethes olde, are very much commended in the spring time by reason of their daintinesse: as the olde are in winter stuffed with great chesnuts: her liuer also is of verie pleasant taste and eating.

Goose-grease.

The grease of geese is profitable in this point: if it be mixt with

the

the iuice of an onion, and dropt into the eare, it asswageth paine and draweth out water. The goose toong dried and made into powder is good against the retention of ones vrine. The stones of geese eaten by an incontinent woman after her naturall courses, doe not only prouoke carnall copulation, but also make apt to conceiue. The dung of geese dried, powdred and taken in a morning the waight of one dram with white wine, doth throughly cure the iaundise, if it be continually vsed for the space of nine daies.

The seuenteenth Chapter.

Of duckes, drakes, teales, brant duckes, water hens, small duckes of the lakes, swans, cranes, storks, and other water fowles.

THe ditch or fish-poole which we haue appointed to be in the midst of our court and straw roome, may serue for the ducks and other birdes liuing in the water: and neere vnto the saide pond there must be prouided for them a low roofe, lightly couered for them to sit vnder in the night, as also in the day as they please: for as for any great diligence and industrie to be vsed about these fowle, indeede there is no such neede, except it be for the keeping of them from cats and weasels, kites, eagles, vultures and serpents, which are very noysome vnto them. In the place of their haunt they must haue some corne cast, pulse, and the drosse of the riddle or fearce must be cast about the edges of the pond, and also within the same, to cause them to be pudling in the mire, you must also let them haue the libertie of such ponds as you put your fish into which you meane to salt, as also of the next riuer, as you doe your geese: notwithstanding it were good that some should see that they haunt or frequent not your ponds with fish, because in deede they will eate vp the small therein. But in other points they need not so much attendance, seeing for the most part, they are nothing in loue with gardens, and as for their nests to lay in and to sit they make themselues, and there is no care greater then this: namely to know their haunt, especially that of the wilde ones in or about what place of the pondes they vse, that so you may take their egges to put vnder some hen to sit them, thereby to make them tame: for the fowle that is thus ordered will be better then that of the yeard, and which stirreth not out of the court, or from about the sides of the streets to tread.

A place for ducks to sit in.

The ordinarie foode of ducks.

The egges of ducks set vpon by a hen are better then if they were hatched by the duck herselfe.

To take such wilde duckes as are about your pondes to make them tame, you must cast the lees of wine or red wine in that verie place of the pond side, where you haue accustomed to cast them meat of wine and corne with leauen and flower tempered together, and you shall take them when you see them drunke: or else to take of the roote and seed of Henbane a good quantitie, and lay it to steepe in a

Wilde duckes may be well taken when they are drunke.

basen

baſen full of water a whole day and a night; afterward put thereinto wheat, & boile all together vntill the ſaid corne be well ſteept & ſwelled, afterward you ſhall put of the ſame corne in the ſaid place: for the wilde duckes will runne vnto it, and aſſoone as they ſhall haue eaten it they will fall downe all aſtoniſhed and giddie. This kinde of foule is made fat in ſuch manner as the yoong geeſe, that is to ſay, with the ſame foode: onely it remaineth that you ſhould giue vnto them beſides that, the ſmall of the fiſh, and ſo you neede not to cowpe them vp: and as for your common ones, the more you ſuffer them to runne the better it is for them.

You may make your profit of this bird in as much as the fleſh therof is verie pleaſant to eat, eſpecially about the necke and breaſts: the feathers thereof are ſmaller, better, and more wholeſome to ſleepe vpon then thoſe of geeſe. She laieth egges in great quantitie, but not ſo good or delicate as thoſe of the hens; but yet of vſe to make cakes, fryed meates, and other daintie deuiſes: adde hereunto that you may ſet them vnder hens.

The blood of ducks.

When this bird trimmeth her feathers with her bill, it betokeneth winde. Alſo ſome hold the blood thereof hardned and drunke with wine is good againſt all manner of poyſon. The drake applyed aliue vnto the bellie is a ſoueraigne remedie for the fretting of the guts and colicke: inſomuch that ſome ſay that this diſeaſe thus cured returneth vnto the drake, and that in ſuch ſort as that he dieth of it.

The drake cureth the colicke.

Teales.
Young ducks.
Water hens.
Small ducks.
Woodcocks.
Curlewes.
Birdes of a double life.

Teales, yoong duckes, water-hens, and ſmall duckes of the pond, will neuer be made tame, but otherwiſe you may more eaſily take them, then you can the wild-geeſe. We may ſay as much of the Woodcocke and Curlew, and other birdes haunting the water and riuers, and liue notwithſtanding vpon the land: for which cauſe they were called by men of olde time, birdes of a twofold or double kinde of liuing and feeding.

Swans.

Swans haunt and loue to reſort to ſome particular places onely, as in watrie, wandring and ſolatarie places. There are great ſtore to be ſeene in ſuch places towards *Towers*, *Augouleſme*, *Coignac*, the riuer of *Sharant* (which is reported to be floored with ſwans & paued with troutes) *Sameure* in *Fraunce* as alſo in *Flaunders* and towards *Valentia*, which ſome ſaie to haue beene in that reſpect called the Valley of Swans, and may be made tame, and may be put either in pondes or in fens, but indeed they deſtroy & ſpoile very much fiſh. Sometimes they feede vpon the greene corne as the golling or wilde gooſe, and do make great ſpoile and waſte therein. It is ſufficient for two paire to take their pleaſure in your pooles, or fower if they be verie great, and one paire onely is inough in your fiſhpond, and they muſt haue a houſe apart in the orchard or garden couered ouer a little and free from

Valentia the vale of Swans.

How manie Swannes are inough to be together.

from disturbance, often made cleane and refreshed, for they defile verie much. If they haue not inough whereon to feede in the place of their aboade, you must cast them some softned bread, or some of the smallest fishes. This is a great eating fowle and chargeable to be kept, he maketh his nest himselfe, and hatcheth but once a yeere, and three egges at the most at a time, but he is a verie beautifull and pleasant bird. There is a certaine kinde of swanne which hath his right foote deuided into fingers and fashioned with nailes and clawes or talons, as birdes of the pray haue, whereupon in striking into the water he catcheth and footeth his praie, but his left foote is fashioned after the common manner of others, and with it he roweth vpon the water. Such a one was seene and killed at the Abbay of *Iuilly* neere *Dampmartin*, in the yeere 1554. This kinde of swan feedeth no where but in the water, & vpon his pray, and is altogither wilde, and cannot handsomly be tamed: but the common swan is not such a one.

Socrates in *Plato* saith that this birde is dedicated to *Apollo*, because of the gift of diuination which he hath, by which he foreseeth his death, and singeth very sweetely and melodiously when he perceiueth the same at hand, as seeming thereby to foresee what good death doth bring with it. I haue obserued that he doth not only foresee his owne death, but also the death of men, especially when he appeereth in such places as he was not wont to haunt. Witnes hereof is Saint *Bartholomew* his day in the yeere 1572. two or three daies before which were seene many swannes, flying, swimming, and diuing in the riuer of *Seine*, betwixt S. *Clou*, and the port of *Nully*.

Cranes are not much vnlike to swannes, and are not birdes of continuall haunt, but yeerely remooning from the countries that are more hot vnto those countries that are more cold. Their departure is about September, and their returne shortly after the spring seede time: and although they doe addict themselues vnto watrie places, yet they feed for the most part of that which the drie lande yeeldeth, and not of things afforded by the water, for they liue and feede vpon corne as doe the wilde geese. There is no cause why you should make any great account of the crane; for although he stay a certaine time with you, yet he layeth not any moe then two egges all the yeere long. Wherefore if you be willing to keepe of them, you may doe it rather to please your sight withall, then for any hope of increase, for they neither lay nor sit any moe than two egges: and further, their flesh is of a verie hard digestion, especially if it be new killed; but if you will eate it, stay some time after the taking of them, and hang them vpon the arme of some fig-tree that they may growe tenderer: also eate them rather a long time after they haue beene dressed, then whiles they are yet warme. When you see them flie aloft in the aire without making any noise, then looke for faire weather *Cranes.*

ther: but and if you see them rest themselues vpon the ground, be ye assured that it will be raine.

If your farme be neere vnto marishes and places where snakes, lyzardes, adders, and other such like beastes abound: you may set vp some small spire or turret about your house, or plant vpon some piece of high mounted ground, some wel spred tree of a great height, for the alluring of storkes to the same, that they may helpe to free your house of those saide venemous beastes, for they will kill them to feede their yoong ones therewith. But yet perswade not your selfe that you can easily draw and allure them, nor yet retaine and keepe them summer being once passed, for vpon winters returne they will bee packing into another countrie. Notwithstanding there are some, which not hauing beene disturbed in the time of their airing and bringing vp of their yoong ones, doe euery yeere repaire to their wonted aires, and that by a long flight out of a farre countrie, and do aire and nest themselues willingly also in the tops of high towers not frequented, as iudging the place to be such as will not suffer any man to do them annoyance. And in the meane time you neede not take any care of their nest, laying, sitting, or feeding, for they be birds careful inough of themselues, and not needing the helpe of any other: and which do come and go in such sort as one cannot perceiue them: in such sort as that we may rather see them when they be comen, then foresee their comming, for asmuch as their comming and going is in the night. Some do think that they haue no toong: make no account of them for to eate them, seeing they are of a very euill iuice, and venemous feeding: and yet this good is in them, that he which shall haue eaten of a storke, shall not haue his eies bleared or running all that yeere. It is obserued in this birde, that the yoong do feed the old that breed them, when they cannot flie any more nor get their pray.

Storkes.

The eighteenth Chapter.

Of Feasants.

Hens of Numidia.

IT is a point of great curiositie to keepe feasants, which *Columella* calleth hens of *Numidia*: but he that can do it, hath both pleasure and profit: and he must be such a one as almost doth nothing else: for this birde is chargeable to maintaine; she will haue her house by her selfe, raised high and leaning to the inclosure or wall of the court, and long also, that her troughes may be in the aire, and where the sun giueth. And euery seuerall birde must haue her owne roome, and yet there must be but one doore vnto their hen-house for the clensing thereof, and giuing of them meate. The rest of their house shall be all open vpon the forepart, and yet in such sort as that it shall be sure and fast,

fast, by being thicke latted and of clouen boardes, about the height of a fadome below, and very well couered aboue.

Fesant cocks and hens are hard to tame if they be not so hatched, or else taken within the yeere, for the elder sort growe sullen and male contented, and do accord and buckle themselues either to lay or sit: and as for the yoong they must be gently handled, vntill they be well trained, and can easily be content with, and apply themselues to the enduring of a constrained aire, and that such a one as is not like to that where they were taken. There must be one cocke to euery two hens. The hen hath but one season wherein she vseth to lay, and that is March, at which time she beginneth and so continueth vntill she haue orderly laide twentie, and after she sitteth them all together, or else fifteene of her owne, and some others of another kinde, if you put them vnder her: and she sitteth thirtie daies, and in the time of her sitting you must vse her with the like diligẽce that you do the hen; but this must be all within her owne house. The yoong ones being hatched, shall bee fed with flowre of barly boiled and cooled, and afterward with the flowre of wheate, and sometimes you shall mix heerewith or else giue them by themselues some grashoppers, and egges of Ants: and you must oftentimes giue them fresh water and cleane, for they are subiect to the same diseases that the hen is.

Feasants cocks and hens, not so easie to make tame.

Men of old time were woont to fat their feasant cocks and hens for feastiuall daies, or bankets and feastes onely, and not for broode, and gaue vnto them the first day honied water and strong wine, to cause them to forget their naturall place: after that, of the flower of barlie, tempered with water, of ground beanes, and of cleane barley, of whole millet, of turnep-seede, and linseed boiled and dried mixt with the flowre of barlie; and for to heate and clense their stomackes they gaue them mustardseed for fiue daies, and so fatted them vp in their coupes for threescore daies.

To fat feasant cockes and hens.

This is the thing that diuers cookes of Paris, with certaine other rich vittailers, do know very well to do: and they must (as saith *Columella*) giue them their meate to eate, to the end they may be fat when they are vsed in bankets: for but few of these wilde feasant hens, do giue thẽselues to lay, & bear the yoke of seruitude both together.

The nineteenth Chapter.

Of Peacockes.

THe Peacocke is a birde of more beautifull feathers then anie other that is, he is quickly angry, but he is as far off from taking good hold with his feete: he is goodly to behold, very good to eate, and serueth as a watch in the inner court, for that hee spying strangers to come into the lodging, he faileth not to crie out and to

aduertiſe them of the houſe. It is true that he is not kept with a little coſt and meate, being a great eater, and quickly digeſting his meate, noiſome to the houſe, for that he ſpoileth the gardens, if there be not ſome little meddow ground for him to frequent, he breaketh the roofe and high place of the houſe: and the cocke being ouer ranke by nature, doth breake the hens egs, thereby to keepe her from ſitting, that ſo he may the more freely inioy and vſe her. The cocke liueth a long time, as from twentie, to fiue and twentie yeer es; but the hen ſomewhat leſſe, both the one and the other ſomewhat troubleſome to reare and bring vp whiles they be yoong, but they neede not to haue any great care taken of them after they haue once left the dam, except it be in keeping them from hurting the corne. They loue a hot and temperate aire, and thats the cauſe that they are not brought vp in many cuntries of Fraunce but with much ado. The place where they moſt abound in all the countrie, is toward Liſieux in *Normandie*, for from thence there come great numbers to Paris, for great and ſumptuous bankets and mariages, there they make them fat with the droſſe of cider and perrie.

The peacocks walke.

People of olde and auncient time did caſt Iſlets on the backſide of their gardens, onely for peacocks, and there ſet vp ſome little ſhed for them at their pleaſure to repaire vnto, and another for the partie that ſhould feed them. And in Italie vnto this day they vſe in places neere vnto the ſea ſhore, to bring vp peacocks in Iſlets ſomewhat neere vnto the ſea, that ſo they may preuent ſuch harme as the foxe might otherwiſe do them, which was alſo the driſt why our ancient predeceſſors tooke the ſame courſe: but we which make not ſo great account of them, are content to keepe them in ſome roome ouer the hens, euen in the higheſt part of the henhouſe, for they loue to rouſt on high, & in an open aire, ſitting very often for that cauſe vpon trees, but we prouide them ſome place below, whither to repaire in the day time. This place muſt be kept very clean & looked diligently vnto, euen as the henhouſe, for this bird is ſubiect vnto the ſame inconueniences and diſeaſes that hens be, and muſt haue the ſame remedies adminiſtred vnto them. The place of their abode and haunt muſt be ſtrawed with ſtraw, or greene graſſe, for the hens do lay but ſeldome ſitting downe low, as is manifeſt in that her egges are founde oftentimes dropt downe from her vnder the pearch, & this hapneth by their falling from her as ſhe is aſleepe: theſe birds bring foorth verie well after they be three yeeres old: but before nothing or verie little.

The diſeaſes of peacockes.

The nature of Peahens.

The ſitting of the peahen.

The peahen hath three ſeuerall times or ſeaſons of laying in the yeere: but ſhe that is ſet hath but one, and paſſeth ouer her other times in hatching and leading of her yong ones. She beginneth her firſt laying time at mid Februarie, and laieth fiue egs one after another:

ther: at the second she laieth fower or three, and at the third three or two. If the cocke and the hen tread not, you must bring them to it by such foode and meate as will set them in heate, as with beanes rosted in hot ashes. And to know when the cocke is in his pride or heate, you neede no other signe then his viewing of himselfe, and couering of his whole bodie with the feathers of his taile, and then we say hee wheeleth.

When the peahen sitteth, she withdraweth and hideth her selfe from the cocke in the most secret place she possiblie can: for he ceaseth not to seeke her, by reason of his excessiue rankes and lustines of nature: and if he find her he beateth her, to cause her to rise from off her egges, and then breaketh them. If while she sitteth she be couered with a white linnen cloth, she will bring forth chickens all white, and not of the colour of the vine bud. And to that end you may shut her vp in cowpes or houses ouerlaid or garnished with some white cloth or paintrie, to the ende that whatsoeuer she looketh vpon while she sitteth, may be of a white colour. At the end of thirtie daies, when the yong ones are hatched, and the hen diligently fed in the place where she did sit them (as we haue said of the hen) she must be put vnder a cowpe in some place where the cocke cannot come, for he hateth and hurteth his yong ones, vntill they be growen to haue a coppell vpon their heads: and at such time as this is growing out of them, they must be kept very warme, for then they be very sicke, and for the most part die. *A peacocke of a white colour.*

You must feede the yong ones, the first day with barly meale tempered with wine in manner of thicke pottage, and for the thickning of it some put thereto soft cheese well kneaded, presled, and purged from whay, for whay will hurt them greatly. Sometimes they must haue grashoppers giuen them, their feete pluckt away, weesles, spiders and flies for their physicke; for they driue away vermine naturally, so that there is scarce any found where they haunt. After sixe monethes they eate boiled barlie as the dam doth, and are suffered to run abroad, but euen then they must be kept from colde and raine, for they cheape and hang the wing by and by, especially in this countrie, where they are hard to bring vp, if they be not hatched by mid Iune: for when autumne doth finde them very yoong, they doe neuer hold out winter. *The feeding of yong peacocke.*

They which will haue the peahens to holde their three seuerall times of laying must set their first egs vnder hens that are great, well gouerned and olde, and that in the beginning of the growth of the moone, that so the peahens may hold on their seuerall courses of laying. And as we haue already said in the feeding of hens, there must be put vnder the hens some fiue of the peahens, and nine of her owne: after the tenth day the nine hen egs shall be taken away, and other *The laying of peahens.*

nine put in their place: by this meanes you ſhall finde by the ende of thirtie daies, that all will be hatched together: and thus you ſhall vſe many hens at one and the ſame time. And ſeeing the peahens egge, for the greatnes of it, cannot be well turned by the hen, you ſhall turne it your ſelfe very ſoftly at ſuch time as the hen is a feeding, and marke with inke the place you leaue vppermoſt, that ſo you may knowe thereby whether the hen doe turne them or no, for elſe you might poſſibly loſe your time and labour: and when all are hatched, giue all the chickens to one onely hen, and the yong pea-chickens to a pea-hen, and ſee that the hen leading her broode doe not haunt where the peahen and her chickens doe come, for ſo ſhe would leaue her owne, for the diſdaine and iealouſie ſhe conceiueth in ſeeing the faireneſſe and greatnes of the others.

The diſeaſes of peacocks.

Peacocks are very ſicke when they moute, and then they muſt be hartened with honie, wheate, oates and horſe-beanes. They are very hot in the dogge daies, ſo that then you muſt not let them want freſh and coole water, and euery cocke would haue fiue or ſixe hens for change, for he is grieued at them that are ready to lay, and faileth not if he can to breake their egges.

The fleſh of peacocks is hard.

The fleſh of peacocks is melancholike and of hard digeſtion, but to make it tender, you muſt kill your peacocke in ſommer a day before you eate him, and in winter fower daies, and hang ſome heauie thing to his legs, or elſe tie him vpon ſome fig-tree ſtaffe, becauſe the wood of the fig-tree hath vertue to make fleſh tender that is tough and hard: the roſted fleſh of a peacocke is well kept a whole moneth, and looſeth nothing either of his ſmell or good reliſh. The dung of peacockes is very ſoueraigne againſt the diſeaſes of the eies, if it may be found: but the peacocke ſo much enuieth the good of man, that he eateth his owne dung, for feare that any man ſhould finde it.

The twentieth Chapter.

Of Indian hens.

Indian hens good coffers to burie oates in.

WHoſoeuer hee was that brought vs theſe birdes from the iſland of India lately diſcouered by the Spaniards & Portingales, whether wee call them cockes or peacockes of India: hath more fitted and prouided for the tooth then for any profit. For they may rightly be termed cofers to caſt oates into, a deuouring gulfe of meate, and wherein there is no other pleaſure to be taken, but onely in their crie and furiouſnes when they are come to bee great ones: or continually cheaping whiles they be little: beſides that both the one and the other are ill fauoured and ouglie to behold, for the deformitie of their heads: for the male hath no combe, as our cocks, but in ſtead thereof a red fleſhineſſe, and vnder his chin a great wide

wide and long throte, which ſwelleth and changeth into many colours when he beginneth to be angrie. It is verie true that his fleſh is fine and delicate, but without taſte and of hard digeſtion. And this is the cauſe why men vſe to powder them, larde them much, and ſeaſon them with ſpices. There is much more pleaſure and goodnes in the fleſh of a peacocke. *That a peacocke is better meate then a turkeie*

The meate fit for this kinde of bird is the ſame that is good for hens, and ſo made, and with like diligence, and becauſe his propertie is to be abroad, to feede vpon graſſe, wormes and herbes, therefore it remaineth that we ſet downe what is required ouer and aboue. And the farmer may well ſay, that looke how many turkeies he hath in his yard, euen ſo many mule coultes hath he in reſpect of their feeding. Their ordering is leſſe troubleſome then that of the peacockes, ſaue that they doe not ſo well endure and abide the cold, neither doe they require to be pearched ſo high in the open aire: but they eate vp and make great waſte in gardens, and are filthie as goſlings, and therefore ſome muſt be ready to make them cleane euery day. In winter they muſt be ſet in a warme place and drie: their pearch muſt not bee aboue eight or ten foot from the earth, becauſe they do not flie high. *What meate is fit for turkeies.*

As concerning their laying and ſitting it is altogether like to that of the peacockes, and their egs may as well be ſet vnder hens, and led afterward by the ſame whiles the Turkeie-hens do accompliſh their ſeuerall times of laying. *The times wherein turkies do lay.*

Their diſeaſes and remedies are alſo all alike, ſo that it were in vaine to ſpeake of them heere againe. *The diſeaſes of turkeies.*

The huſwife ſhall not make any great account of Turkeie egs: at leaſt he that loueth his health, ſhall not eſteeme of them for to vſe them: for phyſitions hold, that egs of Turkeies ingender grauell, and miniſter cauſe to breede the leproſie. *Turkeie egges.*

The one and twentith Chapter.

Of Turtle doues, partridges, quailes, ſtockdoues and thruſhes.

THe place to put theſe kindes of birdes in (ſeruing rather for food and pleaſure, then for breeding) ſhall be ordered after the manner of the feſant houſe, that is, after the manner of a great coupe, ſo leaning againſt the wall of the backyarde, and open toward the light, wouen and wrought with the ſtrings of a ſmall bow, put through woode, after the manner of birde cages, with a doore of the ſame. And within eſpecially toward the corners, there ſhall be great ſtore of perches, and branches of boughes of Iuniper, baies, and other trees, within which there ſhall be tied againſt the ſaid wall, ſmall baſkets to allure them to lay and ſit in, if ſo be they haue any incli-

nation thereunto. It ſhall be of the height of a man: and ouerthwart and euery way, you ſhall hang perches ſtaied vp at both ends for ſeats for them to ſit vpon, and vnder their perches much freſh ſtraw, which you muſt often renew, when you make them cleane: on that ſide towards the light all along their houſe, you ſhall weaue and worke in two boordes of a good length and a third vnderneath them, and there ſhall you make places for them to eate their meate, and to ſet their water pots for them to drinke, which you ſhal refreſh and make cleane very often. Theſe birdes are all of them ſuch as vſe to goe togither in flockes, and delight in hot aire, and in colde weather flie ouer the ſea out of one countrie into another. And therefore to tame them in ſuch manner as to make them like our houſe birdes, would be a very harde and difficult thing; and againe we make no further account of them then for their daintines and delicatenes, which is the cauſe why they are of ſuch requeſt in feaſts and bankets.

Turtle doues. Of all theſe forenamed kindes of birdes, there is none more apt to tame then the turtle doues, neither yet ſooner fatted: for to take them after they be ſomewhat great and flie well, you muſt giue them wine: for by the meanes of it they do quickly fall to forget their libertie and freedome; for this birde is of a great ſtomacke, and beareth it therefore very mournfully, when ſhe perceiueth herſelfe taken: for which cauſe alſo they almoſt neuer lay when they be reſtrained and kept in, neither yet feede fat in winter: quite contrarie to thruſhes. They feede vpon barlie, fetches, and almoſt all other kinde of graine, they deſire faire & cleere water, and often renewed, and a large water-pot, that they may bathe themſelues therein ſomtime. Eſpecially they loue millet and pannicke, and make no leſſe account of wheate, of which ſorts of corne a buſhell will ſatisfie ſixe-ſcore birds: and you muſt not forget grauell, which muſt be laid by their waterpots for to bee their phyſicke, and ſome alſo in ſome of the corners of the houſe for them to ſcratch in. If they hang the wing and ſtirre not out of their basket, you muſt take them, and looke to their billes whether they haue the pippe or no, and if need be to take it from them: and to their feete to ſee if their owne dung make them not, that they cannot ſtirre: or vnder their wings for vermine, and in all other places to cure them, as hath beene ſaid of hens. The bloud of the right wing of a turtle dropt into the eie, is excellent good againſt the ſtripes and vlcers of the eie. And their dung is good againſt ſpots in the eies.

What meat turtles feed vpon.

The diſeaſes of turtle doues.

Stock-doues. Stock-doues may be fatted and fedde after the verie ſame maner, but they are greater eaters, and more hard to tame: in winter they loue a ſup of wine, and do grow very fat, ſo alſo do the turtles. Againe you muſt take heed not to forget your grauell.

Partridges of browne colour and ſpotted. The browne or woodcocke coloured partridge, is more eaſily tamed then the ſpotted or any other ſort, likewiſe they haue not ſo delicate

licate and fine a fleſh: being notwithſtanding well fed, they are little inferior vnto feſants: and you muſt handle them after the ſame manner, and giue them all one meate, but that partridges loue now and then to eate corne, and feede vpon greene graſſe. The male partridges are very hot, and the hen doth lay a great ſort of egges: the cocks alſo do beate one another for the hens, vntill the one hath ouercome the other; and he that ouercommeth, ouercroweth the other which is ouercome, and maketh him follow and come behinde him after the manner of the hens.

The hen partridge is ſo fruitfull that ſhe conceiueth at the onely voice or flight, or breathing of the cocke. The meate that they moſt delight in is millet and pannicke.

The egges of partridges often eaten, do bring fruitfulnes vnto barren women, and great ſtore of milke vnto nurces. The gall of a partridge doth cleere the ſight, and mixt in equall quantitie with honie, doth heale the bruſes of the eies: the bloud of partridges hath the like vertue. *The egges of partridges.* *The gall of a partridge.*

Quailes (being birdes liuing altogether vpon the earth rather then in the aire) do not make or builde themſelues any neſts, anie more then all other birds which are heauie, and cannot ſo well flie: they be very fierce, and in that reſpect they are not accuſtomed to haue either ſo much ſcope or light as other birdes. Likewiſe we ſee that they are woont to haue their coupe couered with nets or skins, leaſt in flying vpon high, and riſing with ſome boiſterouſnes, they ſhould beate themſelues to death. Some prouide them meate-pots and water-pots apart, that is, to euery birde his owne prouiſion and diet: they loue greene corne, and wheate, and muſtardſeede is their chiefe and principall feeding. They eate in thoſe countries whereinto they go (being elſewhere then in this our countrie) great quantitie of hellebor. And this is the cauſe why *Didimus* ſaith, that their fleſh is laxatiue, and that it doth procure the turning ſicknes and headach, that it cauſeth the falling ſicknes, conuulſion, and diſtenſion of the muſcles, and for that cauſe, that they ought to be ſtuffed with millet, or boiled therein: or elſe if any ſhould finde themſelues ill after them, for to drinke the decoction of millet, or of mirtle tree berries; and it will be good alſo to giue the ſame to quailes to eate. The cocks are nothing leſſe hot then the partridge: the hen ſo ſoone as ſhee hath laide her egges ſitteth them, and by and by after ſhe hath hatched her yoong ones, ſhe draweth them into ſome other place, to the end that ſuch as go about to take them may not finde their place: they be birds vſing to flocke together, and they goe away at ſpring time, and returne in winter, and in the beginning of Autumne. *Fierce quailes.*

Thruſhes are not naturally breeding in this countrie, as being an exceſſiue cold place, and hardly at any time do they indure this aire, *Thruſhes.*

and therefore it were but fooliſhnes to go about to fat them heere. This bird is addicted to hot countries, as alſo to ſuch places as where there are great ſtore of oliue trees, for they do greatly delight in oliues, and grow fat at ſuch ſeaſon as they grow ripe: it is a birde alſo giuen to make great hauocke and ſpoile, for the thruſhes do powre down themſelues vpon the oliue trees in great flights, and hauing eaten their full, they alſo carrie away at their departure one in their bill, and one in their clawes, after the manner of men of warre. They are found alſo and made fat in the mountaine and hilly countries, but it is in winter time: for they gather fat, and fill themſelues in colde weather, if it be any whit moderate. The men of old and ancient time did much eſteeme them, and ſold them in the time of the *Romaines* for ten Sous a peece: ſo alſo to this day do the *Italians* and *Spaniards*, and in this our owne countrie thoſe of *Lions*, *Prouence*, and *Auuergnat*: but they are not ſo great on this ſide the mountaines, as they are beyond. This birde is more ſullen then any of the aforenamed, and dieth ſhortly after he is taken if ſhe be carried out of her ordinarie aire, or if ſhe be not put preſently amongſt other old tame ones: they muſt haue their meate caſt them vpon a very cleane floore, and farre from their pearches, and ſome caſt them dried figs ſtamped with the floure of meale, and that ſo much, as that there may ſomething remaine more then they can eate: and ſometimes for change of diet, they may haue caſt them the fruite of maſticke or mulberrie tree, or the berries of iuie and wilde oliue trees, and yet notwithſtanding their meate pots muſt alwaies be full of millet: for this is their chiefe meate. Againe, you muſt ſee them prouided of cleere water as well as other birdes aforenamed.

Sous.
The valew of this bird in times paſt and yet alſo.

The ordinarie meat for thruſhes.

The two and twentith Chapter.

Of the Douehouſe.

The profit of a douehouſe.

THe profite that commeth of the keeping of a douehouſe, is nothing leſſe then that of the keeping of a henhouſe: eſpeciallie in reſpect of the ſelling of yoong ones and others, which euerie yeere increaſe innumerably: for there are ſome farmers which ſell at euery flight, two hundred, yea three hundred paire vnto the vittailers: the care to to be had about them is not ſo great as that about other birds, neither the coſt ſo great, inaſmuch as they get their own liuings the moſt part of the yeere, and in that they lay ſixe or ſeauen times a yeere two egges a peece: yea and oftner and greater if you change the yoong houſedoues pigeons with thoſe of the coate, after that they be once eight daies old, to the end they may accompanie the cocke pigeons which go by themſelues without any matches; but this muſt be done ſo cunningly as that the dams do not perceiue it: It is true that this

this bird is of great charges, and wasteth much in respect of grounds: and for this cause there is no ground-pigeon-house allowed, but to such as be lords in fee-simple: neither yet very oft any doue houses in vpper roomes, except it be to such as haue a competent quantity of eareable ground.

Where a ground doue-house is permitted and lawfull to be had.

Let vs then prepare to our good liking, and for the ease of the huswife a ground doue-house, out of the noise of folkes, the dashing of trees one against another, and the roaring of waters, and let it be set in a place somewhat raised: or else let vs build it right in the middest of the base-court, which is the place of our countrie house before in this booke appointed, and that after the fashion of a stone towre made for a winde-mill, or somewhat neerely resembling it, but let it be distant a flight or two from any water, to the ende that the olde pigeon may warme that which she bringeth for to giue to her yoong ones. For it is certaine that as the pies and sparrowes, the male and the femall doe sit by courses, and as while the one of them is seeking her food abroad, the other is sitting vpon the egges: so doe these for the safety of their yoong ones, vntill such time as they bee out of their holes abroad. And I would not haue you to vnderstand that the doue-house should onely lie open vnto the East quarter in this countrie, but that it take part also of the South, because this birde doth greatly delight in the sunne beating and casting his beames vpon their house, and entring in at their windowes and loope holes or higher lights, especially in the winter time: and further, that vpon the South there be prouided a shutting and opening window in winter to giue some heat vnto the pigeons. There must not any window be made vpon the Northside, or if there be any for to let in the coole aire in sommer, yet it must be very close stopt vp while the cold indureth. Let the South window be turned toward the barne doore; and by the side of the said doore let there be a water pot set vpon a pillar of stone for the pigeons to drinke at, and let that water pot be made in maner of a base, diuided into many partitions to drinke at, to the end that when the pigeons haue pickt vp some corne scattered from the sanne, or striked abroad by the flaile, they may haue their water neere and easie for many to come by together, either to drinke or bathe themselues in. And you must procure and see that this doue-house be built and laide with a good and broad foundation, well couered, and the floore close beaten and lomed ouer, to preuent the danger of the dung, which doth vndermine and corrupt the foundation: it must also be well and close laide and drawne ouer with mortar within, and the chinkers or clefts which may grow must oftentimes be searched out and stopt for feare of rats or mise, which is a mischiefe often happening where there is not any plaister to come by: and it must also be drawne ouer in like maner on the outside, for the crackes that

Pyes and sparrowes, male and female, do sit.

A doue window.

Beasts to be kept out of doue-houses.

happen

happen in lime and ſand are inſteed of ladders, for fulmers, weaſels, cats, and other beaſtes to climbe vp by. And for the very ſame cauſe, you ſhall make round about the doue-houſe on the outſide two outcaſts of hewd ſtone, or round rings of plaiſter as broad as three or fower cheſſe of ſtones. The one of theſe rings or outlaies ſhall be about the middes of the doue houſe, and the other cloſe vnder the window, at which the pigeons vſe to goe in, and vpon which the pigeon alſo may ſport and turne herſelfe round. As concerning the falling window and chiefe entrance into it, it muſt be made higher then the dor-window, and larger alſo. And yet I meane that this window without be round compaſſed with white plates well nailed to the wals, and that is ſhut with a falling latteſſe thick wrought, made to riſe and fall by an engine euening and morning, thereby to preuent the danger of owles and iennie whuppers. The holes made of earth troden with ſtraw are more kinde for the pigeon, then thoſe of boord, or ſquare tiles, or of plaiſter, howſoeuer they be ſubiect to growe full of chinkers and vermine which infeeble the pigeons when at any time they ſeaze vpon them. And therefore if you will haue them good, you muſt draw them ouer with a ſtrong cruſt of lime within and without. Againe, howſoeuer you make them for matter, yet they muſt be made ſo large as that the pigeon may turne herſelfe in them, keeping her feathers vnruffled; and ſo high as that the pigeon may ſtand vpright in it and not touch the top with her backe. If either of theſe two points be miſſing, then ſhe leaueth her hole deſolate and forſaken, and oftentimes the houſe to.

A draw lettes window.

It will be good alſo in reſpect of ſome beaſtes which are enemies vnto pigeons, to hang in the doue-houſe the head of a woolfe, which partly by the ſmell, and partly by the ſhape driueth away ſuch beaſts: or elſe to ſticke ſome branches of Rue in the windowes or doores of the doue-houſe. Vpon the pinnacle of the roofe make the picture of a pigeon either of potters clay or of plaiſter, to draw ſuch as flie by, thither. Prouide in ſome place about your doue-houſe good ſtore of pots for ſparrowes with ſtickes of thorne to hang the pottes on, and others to reſt the ſparrowes vpon: and withall beware that this mournfull birds doe not take vp his habitation in your doue-houſe, for he would make wilde and eſtrange your yoong pigeons.

To ſtore a doue-houſe.

To ſtore a doue-houſe, you muſt firſt conſider the contents of it, as whether it be made to containe manie, or but a meane ſort, or but a few, and ſo to put therein an anſwerable number of pigeons. Twentie paire of pigeons are inough for three hundred holes: likewiſe if the doue-houſe bee of a thouſand holes or moe, then ſo ſmall a companie would not be inough, neither indeed would they loue it, they being of ſo ſmall a number, but would goe away or die in the ende.

The

The pigeons wherewith you minde to ſtore your doue-houſe muſt be yoong ones taken when they are halfe downe, and halfe feathered togither with the old ones their dames, and ſo put at libertie in your doue-houſe, or rather in great coupes, and cauſe them to be fed with fetches and water with ſome skilfull handler of pigeons twiſe a day, ſo long as till they become to eate and drinke by themſelues: for by this meanes they will ſoone haue forgotten both their old houſe, as alſo the old ones, and ſo will yeeld themſelues willingly to tarrie in ſuch doue-houſe as wherein you will firſt lodge and put them: which the old ones would not doe, for being tranſlated from another place, they would finde out the way to take their flight directly to their former and firſt home ſo ſoone as you had made them way to get foorth, how far ſoeuer they had beene brought. The pigeons good to increaſe ſtore are the aſhe, browne and blacke coloured, the rough footed or coppild ones are too mournfull, and keeping too much at home: ſo in like maner are they which are of colour like to a ſnailes bellie; the pie coloured ones and the hooded ones, thoſe which gliſter like gold about their neckes, and haue their eies and feet red, are the freeſt of all other. The white are ſtrong to bring vp, but moſt ſubiect to the kite, and other rauenous birdes, becauſe they are very eaſily perceiued as they flie by a farre off. You muſt make your choice of the May flight, becauſe there is no ſuch feare of them for the cold, they grow more eaſily and thriue better, and are ſooner able to get their owne meate. Aboue all things let them not be pinched of their meate in the moneths of Aprill and May, becauſe the old are verie many of them ſitting, or elſe haue alreadie hatched.

To tame Pigeons.

For to make them familiar and tame, giue them ſome honie or ſome little peeces of bread, afterward ſome fetches, then cummin (for theſe ſeedes allure them very much) and ſometimes wheate among the ridled ſcraps, & let them not go out till after fifteen daies of your putting of them in: during which time, you ſhall cut their winges, you ſhall keepe a net ſpred ouer the windowes, to the end that they may haue the light of the day, and yet not be able to get foorth; about the end of fifteene daies, you ſhal permit them the fields, taking away the ſaid nets, and yet not before night approch, the time being cloudie, darke, and inclined to raine, for they will not goe far from the place of their late inlargement, neither will or can they poſſibly but returne vnto the doue-houſe, if it were but to hide their heads that night. In doing whereof they will learne to marke the place of their receipt, and not forſake or leaue the ſame, hauing neuer had the taſte of any former choiſe in any farre remooued place to returne thither againe: further if you lay vpon the window made for them to light vpon at the comming to the coate, a loafe made of red earth, cummin ſeede well bruſed, honie and brine, all being well boiled together

and

and dried in the ouen : for hauing picked vpon this lumpe, they will neuer faile to returne thither againe, they are so much giuen to the pleasing of their taste ; and further by the very sent and smell of this remaining about their bils, they will be the meanes to allure others along with them euen to their coate, which for the foresaid commoditie sake, they will learne neuer to leaue or forgoe.

you shall also keepe them from flying away, if you giue them lentils steeped in honied water, or boiled in some cuted wine : or else drie figs mixed with the meale of malt and honie. Some say also that pigeons will neuer goe away, if there be set vpon the turret of the dowe-house, the head of a bat, or the branch of a wilde vine, or if the doores and windowes of the coate bee rubd or annointed with the oile of balme : as also that pigeons when they flie into the fieldes will bring home others with them if you rub their wings with the saide oile of balme : or if you giue them before their going thither fetches, besprinkled with wine, or shall haue steept in such licour for them the seede of Agnus castus : for other pigeons after they haue smelt the sauour of your pigeons mouthes, will not faile to come with them to their pigeon house. Perfume oftentimes your douehouse with iuniper, rosemarie, and sometimes with a little fine frankincense ; for that doth mightily retaine and keepe them, and causeth them to loue their owne house more then any other. When you shall perceiue that they begin to lay, giue them then what libertie you can : and you shall see that by casting of them morning and euening a little cleane corne vnder the barne wall, and far from the dung, and in causing the water-pot wherein they bathe and refresh themselues, to be oftentimes made cleane, that they will draw diuers others from other places, in so much as that your twentie paire in fortie daies will haue stored your house with twise, yea thrise so many : for they bring foorth yong thrise, and those which are good fowre times a yeere : and you shall not neede to care for any thing, but to keepe the douehouse cleane. And for this cause it behoueth him that hath the charge of the douehouse to goe into it once a weeke at the least, and that in the morning, or at the times of releese, when as the pigeons are in seeking their meate, and abroad in the countrie thereabout : for seeing that they doe ordinarily keepe their noonetide in the douehouse, if hee should enter in at that hower, he should make wilde and estrange the yong ones, yea the old ones themselues. In going in he shall whistle them, and cast them something to eate, to the end they may be accustomed with him and acknowledge him : he shall emptie and fill vp againe their water-pot with cleere water, he shall pare the floore, he shall cast out such as he shall finde dead, he shall make cleane the holes, to the end that they may not gather any fleas, lice, punies, or mothes : especially in sommer he shall not put vp againe into their holes

Perfumes for the dowe-house.

To draw pigeons to a place.

holes ſuch as may be fallen out, he ſhall cull out the barren that hee may put them in ſome place by themſelues, that ſo he may fat them, and afterward either eate or ſell them: and, if he perceiue the traine of any ſnake or adder, he ſhall ſet a long earthen pot vpon the taile or bottome, and ſhall put within it a pigeon, and placing it right in the trade and walke of the adder, he ſhall ſet by it ſome kinde of little foote-pace or ſuch other thing, whereby ſhe may creepe vp vnto the top of the pot, and caſt herſelfe in afterward: for the adder cannot come foorth againe, and ſo you ſhall cleanſe and rid the douehouſe. It is true that pigeons doe require ſome coſt in winter, when either through froſt or ſnow, or when the corne is ſhot, they cannot find any thing in the field; but this paine is not paſſing two monethes continuance or thereabout, that you need to feede them with corne, with the droſſe of the wine-preſſe, or the ſtones of grapes, of which things there may be ſtore and prouiſion inough gathered, during the vintage time vpon a great heape in the houſe court. Likewiſe at this time they affoord you a flight, which is called the March flight, and they are the moſt fat, tender and daintie of all the yeere.

You ſhall keepe well the dung which you take from the pigeons, not mixing it with that which the kine make, or the calues, or ſheepe, for it is very hot and ſerueth to fat and amend the ſonnie and wet places of your part of corne ground, or of your meddowes, or the yoong plants and tender herbes, and to refreſh and relieue all trees ſubiect to coldnes and moiſture. You may alſo make your vſe thereof for the Sciatica, in making a cataplaſme thereof with the ſeede of creſſes and muſtard, and putting thereto a little of the philoſophers oile: as alſo againſt headach, if wrought in a mortar with the oile of the kernels of peachſtones, you apply it to the place that paineth you. *Pigeons dung.*

The two and twentith Chapter.

Of the neate heard.

NOtwithſtanding that we haue yeelded and giuen the ordering of the kine vnto the huſwife, and that oxen are to be kept and ordered in their meat after the ſame maner: notwithſtanding in countries and about ſuch farmes, as where they are kept for the plough and ſale, there is prouided a man which hath no other charge but to thinke vpon and order them, obſerued and noted that he hath almoſt as much pains and labour to take about theſe, as about a horſe. It is true that a cow is not of ſo great charge to maintaine and keepe, neither in reſpect of her meate, neither yet of her handling and managing, neither yet in furniture: but the force and ſtrength whereby the oxe doth cleaue the ground and drawe the cart, requireth one that ſhould doe nothing but attend them: notwithſtanding that he muſt

feede

feede two for one, and that three of the best oxen in *Bourbon* or in the forrest doe not so much, as one good horse of France or of *Beaux*. In like manner it is out of doubt that the labour of oxen is not admitted of, but where meere necessitie forceth, because there is no conuenient and commodious keeping of herdes of horse, or where horse is not to be come by but out of some far countrie. For though the feeding be good and singular for oxen, as in Flanders and elsewhere, yet it falleth out so that if they can haue horse to doe their worke, they do like better thereof then of the oxe. Euen as in *Prouence*, *Languedoc* and *Auuergnac* men doe vse the labour of their mules and their yong colts rather then of oxen and kine, because they effect not or dispatch their worke so well, or yet so speedily; howsoeuer yet the labour of the oxe is maruellous good, auaileable and profitable in strong grounds, for they drawe the ploughes deepe into the earth, and turne ouer great furrowes, as may be seene in Italie, where there are great oxen, long and broad brested, in *Gascoigne*, *Bourbon*, *Poitou*, *Anion*, and *Maine*. Againe men of ancient time vsed no other beast but oxen, because that oxen are more sparing for the profit of the farmer: for they are contented to feede vpon pasture without any other foode or prouander; besides the great profit and good prouision comming of them. For being either shoulder-shot or brused in any part, or growne impotent and vnable to worke by reason of old age, they are fatted, either for to sell or to kill and salt for his vse: profits and commodities which the other kinde of cattell (I meane the horse) doe not affoord.

The oxe-house. The oxe-house must be built of stone, paued with grauell, or sandie ground, somewhat descending and sloping, that so the moysture may not stand. It must also stand vpon the south, that so it may be the more drie, and lesse subiect vnto colde and frostie windes: it shall be nine foote wide, and only of such height as that the oxe may stand vpright, and the oxe-keeper may haue space inough to go round about them, to see and serue them with fodder: as also to the ende that seeing oxen will be striking one another with their hornes, the weaker may haue space to withdraw himselfe. The rackes must be so high, as that the oxen cannot easily reach them.

The oxe-keepers charge. The charge of him that is to keep the oxen, is to be gentle & louing vnto the oxen, dressing and giuing them their meat, prouiding them good litter, either of straw or some other thing, to rub them euerie euening before they lie downe, and in the morning to currie them and wipe them cleane gently, washing their tailes oft with warme water: to keepe their house cleane, and not to let hens or swine come there in, for feathers will kill oxen, and the dung of a diseased swine ingendreth the murraine or plague: to giue fresh straw vnto these cattell, and to cast to them in sommer the greene sprouts and tender shutes of the arbers of vines or others, and in winter of beane stalkes

and

and grasse euening and morning. Let him be skilfull to discerne when plough oxen haue laboured much or little, that he may accordingly giue them a proportionable quantitie of meat, and also such as shall be necessarie: he may not let them take paine or labour in verie hot or verie cold weather, neither yet when it is verie moist: he may not let them drinke quickly after their trauell: but if they be heated, so soone as they be come home, he shall cast a little wine into their throates, and shall not tye them to their manger, vntill such time as their wearines be ouerpast. When there commeth together any companie of festiuall daies and rest, he shall grease their hornes and vnder the pasterne, togither with the hoofe: or else he shall put vnder an onion, roasted verie soft betwixt two coales, tying it therto with a cloath: let him oftentimes make cleane and refresh their pasterns, and not suffer them to cleaue or rend: and to that ende let him euery yeere cause to be repaired the pauement of his oxe-house, which will serue also to keepe away beastes and vermine which are wont to annoy oxen. Let him remooue them one far inough from an other, least they should strike one another. When they labour not let him water them twise a day in sommer and once in winter, and that in cleere, cleane, and coole water. For as hath beene saide heretofore, the oxe seeketh after the water that is cleere and most bright, as the horse after that which is troubled. Let him carefully looke vpon their comming from field whether any of them haue got any thorn in his foot, if they be sweatie, if the coller or the yoake haue caused them any hurt about their head, or if they be chafed about the necke, if they haue beene much prickt with the goad, or with the gadflie, or hornet, and let him accordingly apply some thing for the healing of them.

The gelded oxe more profitable for worke, then the bull.

The gelded oxe is better meat, better marchandise, and better for labour, then the bull, whose flesh is more hard and tough like a hide, and more troublesome to driue: wherefore of a hundred calues that the oxe-keeper may haue, he shall not keepe aboue two to bull the kine; the rest he shall geld, all of them about when they are two yeeres olde, for after this time he cannot doe it commodiously. It would be done in Autumne and in the later ende of the moone; and the ashes of vine branches mixt with litharge must be applied to the wound, and three daies after pitch melted and mixt with the saide ashes. You must not let him drinke the day wherein he is gelded, and he must for the same day also eate but a little meate. The manner to geld him is to take with two straight rules of wood as it were with quitches or pincers the strings of his stones, then afterward to open the purse and cut out his stones, in such sort as that he leaue the vpper end thereof whereto the said strings are fastned. For by this means the calfe is not so much subiect to effusion of blood, neither yet will it be altogether spoild of courage, not hauing all his pride taken away, but some

The time to geld oxen.

The manner of gelding the oxe.

ſome little left behind and reſerued which may ſtill expreſſe his firſt and naturall forme. Hauing gelded him, you muſt feed him well that he may be fit for labour, and feed him according to the ſeaſons and times, cheering and cheriſhing him by ſometimes giuing him a little ſalt, ſometime rubbing his head with your whole hand, ſtroaking his backe, and rubbing the reſt with louing and gentle ſpeeches: notwithſtanding ſo long as he is in the houſe, let his hornes be tyed, and he cloſe made faſt to the cratch. Couple him with another of the ſame greatnes, groſnes, age & ſtrength, tye them the one by the other, lead them into the fields tyed together, to the end they may one of them loue another: let them oftentimes ſee the oxen that draw the plow, or which till the ground, or doe any other manner of worke: and to the end they may looſe their naturall wildenes, lead them to heare the noiſe of mils, of men, of forges, and other things which make great rumbling: neere vnto the time when you would haue them to draw, which is from two yeeres and a halfe to three, giue them the yoke and beele fit for beaſtes of their age, and ſixe daies after you ſhall faſten them to the waine with the teame, to draw it through the fields, or fower daies after you ſhall faſten vnto the teame a piece of wood or other load. In the ende accuſtome them to be put to draw before oxen, which are in the plough incouraging and cheriſhing them and that without anie ſtroakes, vntill ſuch time as they be made cunning: trouble and wearie them not too much with labour the firſt yeere.

To buy oxen. If you buy oxen for labour, take them of the ſame coaſt and quarter that your farme is: for they cannot acquaint themſelues ſo eaſily with a ſtrange aire, as horſes doe: and if vpon occaſion you buy them in a ſtrange countrie, then buy them ſuch as were bred in a barren and plaine countrie, and thoſe will thriue and take well with euerie place, whether the aire be hot or tender, or ſubtill and thin. Furthermore, it remaineth that you chuſe them of three yeeres olde or thereabout, for ſooner you cannot traine them to labour, though you haue bought them: doe not labour them much for the firſt yeere, and eſpecially in the time of great heat, feeding them rather with good hay then with graſſe; ſo they will grow able by little and little to indure all paine, and will feare the heat the leſſe, and will continue ſound and cheerfull a longer time, yea and they will ſpend you leſſe: for your cattell not feeding vpon graſſe, you ſhall gather the greater ſtore of hay in your medowes, and better then and if your beaſtes had brouſed the graſſe, being but yoong and peeping out of the ground. You ſhall know how old they are by looking in their mouthes, for within tenne moneths of the firſt yeere they change their fore-teeth: and ſixe monethes after the next, and at the ende of three yeeres they change them all, and when they be in their middle and beſt age their teeth

To know the age of an oxe.

are

are white, long and euen: but when they grow old, they become short, vneuen and blacke.

Labouring oxen.

Labouring oxen must not be too fat nor too leane, and those which eate softly and with leasure doe abide and continue better in their strength. The good oxe must be of a meane size or stature, gentle to handle, ready and quicke when he is spoken to, not craning the goad: and yet notwithstanding quicke also when he is prickt, and going forward readily: in regard of his nature well limmed, short and broad, of a square body, stout and stiffe, hauing a round muzzle, great eares very hairie and matches, a wide and curled brow, a great and blacke eie, haire curled, and as it were waued, hornes strong, quicke, of a reasonable greatnes, and blacke: his brisket hanging downe euen to his knees, his head short and well compacted, broad shoulders and breast, a great dewlap and belly, a round rumpe, firme and sound legs, a long taile vnto the ground small and thicke tufted toward the end, straight and plaine backe, stretcht out ribs, large reines, strong thighes and sinewie, a short and broad hoofe, short haire shining thicke, and thicke set, colour blacke and red, this is the best: the second and next thereto is the bay, the pie coloured and the spotted: the white is the woorst of all: the gray and yellowish are indifferent: his hide and skinne thicke and well fed, betwixt fowre and eight yeeres olde, for at this age he is in his full strength and lustinesse.

The description of an oxe.

The liuing age of an oxe.

The oxe thus made will serue you to labour and worke till he be tenne yeeres olde, and after that you may fat him and sell him, for he liueth till fowreteene or sixteene yeere olde: you may also fit for the geares and vnto worke such kine as are barren or gelded. But and if you buie oxen already trained to the yoke and fitted for the cart or plough, your oxe-keeper must deale verie aduisedly with them at the first, whether it bee at the plough or any other labour, and finde out his manners, and how he hath beene handled, and what qualities the bringer of them vp, hath vsed and accustomed them vnto, to the ende they may be nourished and continued in the same, to make their worke the better: but and if you will acquaint and fit anie of your owne herde vnto labour, your oxe-keeper must take the paines, and must for the more his and their ease knowe their nature, and (if I durst so say) the complexion of such as he woulde handle and breake: if he be a slow and sluggish beast, if he lie downe often, if he be quicke, furious and heady, swift to lift and lay about his heeles, or to vse his hornes: if he be dull of the pricke, trembling, going backeward rather than forward, fearefull to goe into the water, then you must first beate him from these faults, before you go about to headitall him, if so there be not any other thing that might rather hinder and forbid him. And know that for to do these things is somwhat to soone before he be three yeeres old, and somewhat too late when he

To know the complexion of an oxe.

To take away faultes in a yoonge oxe.

is past fiue. Meate and faire words doe accustome an ox to the yoke, sooner than feare. And there is no course more expedient, than that which hunteſmen doe vse about a yoong dog not yet made readie to range, coupling him with another dog, which is already fitted, old and staied: for if your oxe-keeper do couple a yoong oxe as yet a nouice, with a well experimented and sure old one, and yet so as that they be of one pitch and strength, (for this is a principall thing to match them in greatneſſe, strength, and nature) then he which hath beene already accustomed to worke, will guide and direct the vnpractised vnto all the turnings of the yoke, to all the fashions of the cart and plough. And if the oxe be hard to be nurtured, and yet a comely beast, and in your iudgement fit for the draught, then put him in a great yoke, betwixt other two of his owne stature, which are gentle and well reclaimed to their worke, and in three daies you shall see him to buckle himselfe handsomly vnto it also.

To match oxen.

To tame oxen. Fasting for oxen.

And if you will onely tame them, acquaint him by little and little to indure a rope, and the fastning of it to his hornes: and after a few daies tie him fast to a stake, and there let him stand fasting some certain time: if he be stomackfull, when his heate is somewhat ouerpassed, cause him to smell your hand oftentimes, that so hee may be acquainted with you, and claw him betwixt the legs, and euery where else, speaking him faire. Afterward let him draw a Brise or two made fast in the yoke: and now and then set him to the empty tumbrell, and cause him to draw a little prettie way, after put into the tumbrell some loade, to trie his strength, and in like sort acquaint him with your cries, wordes and goades.

A brise is a kind of ground, that hath lien long vntilled.

The waie to correct oxen.

If you haue bought an oxe ready vsed and accustomed to draw, and that you doe not know his complexion, you must trie and finde it out when he is yoked, as if he be restie, trembling, furious, or if he will lay himselfe downe in the heate of the day, and not to correct him for his faults, neither with whippe, neither with blowes with the goade: for the one maketh him furious and raging, and the other hardeneth him: but rather to binde his legs and so let him stand and fast a certain time, for this fault commeth seldome to any but such as are ouer-fed. Likewise there is a certaine manner and way to be followed in feeding of them, and the lacke of skill therein is not a little fault, neither in respect of the soundneſſe and safety of the beast, neither yet in respect of the easineſſe of the worke, which is attained when the oxe is rather somewhat fat than too leane: for the beast that is high fed, if he be outragiouslie heated by too much labour, is in manifest danger of death, by reason of the moulting and running of his grease throughout his body, and though he escape and die not, yet will he neuer do any good.

Ordinarie meat for to giue oxen.

Oxen are not to be fed so frankely and full in winter, when they labour

labour not: they loue the ſtraw of pulſe, as of fetchis, peaſe and beanes. They are fatned with barly boiled, and beanes bruiſed and broken; and as for hay it is not grudged them, and though he hath it not ſo largely as horſes haue, yet it is his only meate when he laboureth. In the country of *Limoſin* and elſewhere, where there is great ſtore of great turneps, men vſe to fat them therewith, but ſuch a beaſt is not ſo ſtrong, neither his fleſh ſo faſt and ſolide. The yoong ſproutes and buds of vines de refreſh them in ſommer, and ſome do willingly giue them fagots to brouſe vpon at night. They loue aboue all other thinges the yoong buds of the vine, and of the elme tree, and ſuch like account they make of the droſſe of the wine preſſe. The ſheanes of wheate and rie are good for them, and ſometimes bran mixed with ſiftings, both theſe puffe them vp, and make them nothing ſtrong. The acornes do make them ſcabbed, if they do not loath them, and if they eate not all their fodder. Colewoorts boiled with branne, make them to haue a good belly, and do nouriſh ſomewhat; ſo likewiſe doth barly ſtrawe mixed with bran. There may be mingled amongſt their prouander the droſſe of the wine made for the ſeruants, but not before it be waſhed and dried. But without doubt it is better to giue them ſuch droſſe before it be waſhed, euen ſuch as it is, and ſo it will ſerue them for their wine and meate, and will make them faire, deliberate, and powerfull. Nothing is better to fat them, then to feede them with the graſſe which groweth in the medowes in Autumn after that they haue beene cut.

To keepe oxen from diſeaſes.

The oxe is ſubiect to fewer diſeaſes then the horſe. And for to keep him from the moſt ordinarie, old & ancient men did purge them in the end of euery one of the fower quarters of the yeere, and three daies following. Some with lupines and cypres-berries brayed together, aſmuch of the one as of the other, and ſet foorth to infuſe in the open aire one night, in a pinte or three halfe pintes of common water: others with other ſimples, according to the cuſtome and diuerſitie of the place and countrie. He is knowne to be ſicke or ſickly if he eate not when he hath good ſtore of fodder or prouander before him.

The ſicklie oxe.

To get an oxe a ſtomack.

To helpe the oxe to a ſtomacke, when hee hath not taſt in his meate, by reaſon of being ouer-wearied or ouer-heated: it is vſed to rub his toong and roofe of his mouth with ſalt and vineger.

For faintnes and diſabilitie to doe anie thing.

If he be become fainte and vnable to do any thing, there muſt be giuen to him euery moneth beaten fetches, ſteeped in the water which is to be giuen him for his drinke.

Wearineſſe.

To keepe him from tyring and wearines, rubbe his hornes with turpentine made thinne and liquid with oile: But beware and take good heed that you do not touch his muzzle or noſtrils therewith, for oile cauſeth them to looſe their ſight.

The rising of the hart. Colicke.

Against the rising of the hart, or desire to vomite, his muzzle must be rubd with garlicke or leekes bruſed, as alſo giuen him to ſwallow: or thus, that is, or with a pint of wine, eſpecially when he is troubled with the collicke and with the rumbling of his bellie: the colicke is knowne by his complaining and ſtretching of himſelfe in his necke, in his legs, and in his bellie: as alſo by his often lying downe and riſing vp againe, by his not abiding in a place, as alſo by ſweating in ſuch ſort as if he had beene in a bath of water. Some adde thereto the oile of nuts, and others giue him boiled onions in red wine, and others mirtles with bay-berries ſteept in wine, and they alſo cauſe his fleſh to be prickt about his hooues, or his taile vntill it bleed. The colicke commeth to him of wearines, and more in the ſpring then at any other time, becauſe as then he aboundeth moſt with bloud. In this diſeaſe he muſt be walked, and couered with a couering of wooll.

Swelling.

Oxen become ſwolne and blowne vp by hauing eaten ouer ranke graſſe, eſpecially if therewithall it were ouerladen with dew: you muſt take a horn bored through at both ends, annoint it with common oile, and put the fore part of it three or fower fingers into the fundament, and to walke and courſe them thereupon vntill they breake winde, and letting ſtill the horne alone in ſuch manner as is aboue ſaide, you ſhall rubbe their bellies with a barre.

The ſtithie. mallet or hammer.

The ſtithie hapning to the oxe, being otherwiſe called a mallet or hammer, is knowne when the beaſt hath his haire ſtanding vpright all ouer his body, not being ſo light and liuely as he was woont, hauing his eies dead and dull, his necke hanging downe, his mouth driueling, his pace ſlowe, his ridge bone and all along his backe ſtiffe, without all deſire of meate, and ſcarce any thing chawing the cud. This diſeaſe may be cured at the beginning, but hauing once taken deepe roote, refuſeth all manner of cure. Whereunto take of Squilla or ſea onion, ſmall ſhred, three ounces, the rootes of melons beaten as much, mixe all together with three handfuls of groſſe ſalt, and ſteepe them all in a pint and a halfe of ſtrong wine, and euery day you ſhall giue of this vnto the beaſt the quantitie of a quarter of a pinte:

The fluxe of the bellie.

Vnto the fluxe of the belly, which ſometimes continueth till blood come, and weakeneth the beaſt much, there muſt be giuen to drinke in red wine the ſtones of raiſons, or galles and myrtle berries with old cheeſe delaied with groſſe and thicke wine, or the leaues of the wilde oliue-tree, or of the wilde roſe-tree: keeping the beaſt therewithall from eating or drinking any thing for the ſpace of fower or fiue daies. And for the laſt refuge or extreameſt remedy it is vſed to burne him in the forehead with a hot burning iron.

To looſen an oxes bellie.

For to looſen the bellie of an oxe, you muſt cauſe him to drinke in warme water two ounces of oliues made into powder.

To keepe him ſound.

Admit that you would feed and fat him for labour, then you muſt waſh

waſh his mouth euery eight day with his owne vrine, and thus you ſhall draw from him much flegme, which taketh from him his appetite, and doth iniurie him in his meat. And if this flegme haue cauſed him to haue the rheume (which you ſhall know, when you ſee him to haue a weeping eye, and therewithall alſo without any appetite, and hanging downe of his eare) then waſh his mouth with thyme ſtamped in white wine, or elſe rub it with garleeke and ſmall ſalt, and after waſh it with wine. Some cleanſe away this flegme with bay-leaues ſtamped with the rindes of pomegranats: others iniect into his noſtrils wine and myrtle-berries. *The oxe hit rheume.*

The oxe piſſeth blood either by being ouer-heated or too much cooled, by hauing eaten euill hearbs in the Summer time, and eſpecially at ſuch time as the deaw lieth vpon the graſſe: the remedie is not to ſuffer him to drinke any water or other thing: to cauſe him ro take downe a drinke made of three ounces of muſtard-ſeed, three ounces of ſea-millet, both ſtamped together, an ounce of treacle, all boiled in two pintes of white wine, afterward diſſolue therein two ounces of ſaffron, and make the beaſt to drinke it. *Piſſing of blood.*

Againſt the rheume and eyes that are ſwolne and puffed vp, it is vſuall to let the beaſt bloud vnder the toong: or to make him take the iuice of leeks, rue, ſmallage and ſauine well purified. *The rheume in oxen.*

For the ſpots in the eyes, there is commonly made an eye-ſalue of Sal-armoniacke moiſtened and ſoked in honie: ſome againe vſe to anoint the eye all round about with pitch well tempered with oile, becauſe there is danger in the honie, as which might draw bees and waſps about the beaſt continually. *Spots in the eyes.*

If he haue the barbes (which is a fleſhie ſubſtance growing vnder the tongue) they muſt be cut, and afterward rubd with ſalt and bruiſed garleeke together: after this his mouth muſt be waſhed with wine, and with a paire of pincers you muſt pinch away the wormes which breed vnder the ſame tongue. *The barbel.*

To cleanſe the inward parts of the ſicke beaſt thorowly, there is nothing more ſouereigne than to take the droſſe of Oliues after the oile is preſſed out, and to vſe it oft about the beaſt. *To purge oxen.*

Vnto an ague which may befall him by ouer-great trauell in hot weather, with heauineſſe in the head, ſwolne eyes and extraordinarie heat, which is felt by touching the skinne: the remedie vſed is to let him blood vpon the veine of the forhead, or of the eare veine, giuing him therewithall cooling meat, as letruſes and others, and waſhing his body with white wine, and giuing him colde water to drinke. *A feuer.*

If the pallate of the beaſtes mouth being heaued and ſwolne, doe cauſe him to forſake his meate, and often times to grone: it will bee good to let him blood vpon the veine of the ſayd his pallat: and then after his bleeding, you ſhall giue him nothing to eate but garleeke well *The pallat of the mouth ſwollen.*

ſoked, bruſed and husked, with the leaues of the ſame or other greene thing, or very ſoft hay, vntill ſuch time as he finde himſelfe well.

The diſeaſe of the lungs. The diſeaſe of the lungs is ſo deſperate and vnrecouerable both in oxen and kine, as that there is no other remedie, but to waſh the ſtall wherein they haue ſtood with warme water and ſweete ſmelling hearbs, before you faſten any other therein, which alſo in the meane time whiles this is in doing muſt be beſtowed in ſome other houſe. This diſeaſe happeneth vnto them by reaſon of euil hearbs, or naughtie hay which they eat, or of the ouer-great abundance of blood, but moſt of all through horſe piſſe, and yet more eſpecially by keeping the beaſtes houſes too cloſe and ouer-much ſhut. And this is the cauſe why mares nor horſes (yet very well aſſes) can or ought to be left in oxe-houſes, becauſe that the breath of aſſes doth preſerue cattell from this diſeaſe.

The cough. For the cough there is ordinarily giuen to drinke the decoction of hyſſope, and to eat the rootes of leekes, ſtamped with pure wheat: others giue to be drunken ſeuen dayes together the decoction of mugwort.

Blood-ſuckers ſwallowed by oxen. If in drinking he ſwallow a horſ-leach, and that the ſame do faſten herſelfe by the way in his throte; then he muſt be caſt downe vpon his backe, and warme oile powred into his mouth: but and if ſhe be got into his ſtomacke, there muſt vineger be powred in.

His horne broken and ſhiuered. If he happen to haue his horne broken or ſhiuered, take ſixe ounces of turpentine and one of gum arabecke, boile it all together, and with that ointment rub the horne all about euery day, for the ſpace of tenne or twelue dayes: which being expired, beat bole-armoniacke with eight whites of egs, ſpread this compoſition vpon plegets, which you ſhall lay vpon the horne, leauing them there three whole dayes: afterward when theſe plegets ſhall begin to be drie, take them away, and in place thereof ſpread round about the ſaid horne, ſage made into powder; the horne will heale.

A looſe horne. To faſten a horne which is very looſe and readie to fall off: firſt you ſhall ſet cloſe and faſt the horne in his place, afterward you ſhall anoint all the vppermoſt part of the head, for the ſpace of fiue or ſixe dayes with an ointment prepared of bruiſed cummin-ſeede, turpentine, honie and bole-armoniacke, all of it being boiled and incorporated together, afterward you ſhall foment the horne with a decoction of wine, wherein haue beene boiled the leaues of ſage and lauander in ſufficient quantitie.

The necke ſwolne. If the necke be ſwolne that it cauſeth ſome ſuſpition of an abſceſſe or apoſtume: then you muſt open the apoſtume with a hot iron, and put in the hole where it was opened, the roote of ſowbread or of nettle, and this you ſhall renew often: it will not be amiſſe to giue him to drinke a great pot full of the decoction of medicke fodder, and in like

like manner to let him blood.

If the necke be chafed, put vpon the ſame an emplaiſter made of the marrow of the thigh bones of an oxe, the ſeame and greaſe of a male goate, and ſwines greaſe, all being mixt in like quantity and molten together. *The necke ſtead or chafed.*

If the hinder part of the necke be pild and growne bald and bare without haire, annoint the place with a liniment prepared of ſixe ounces of honie, and fower ounces of maſticke, all boiled together. *The chyne pild and bald.*

For the hardneſſe of the hinder parts of the necke, let him take his reſt certaine daies, during the which time rub the place with butter, honie, larde of porke and new waxe in equall quantity, all being molten and mixt together. *The chyne growne brawny and hard.*

For the ſwolne chine, make an ointment of the roote of elecampane well boiled, and ſtampt with hogs greaſe, the fat of a weather or male-goate, rawe honie, frankincenſe and new waxe: with which you ſhall rub the ſaid chine or hinder part of the necke thriſe a day, euening, morning and at noone tide. *The chyne ſwolne or puffed vp.*

If he be ſo leane as that his skinne ſeeme to cleaue to his ribs, foment his skin againſt the haire with wine and honie, being in ſome warme place or in the ſunne: after annoint him with the lees of wine and hogs-greaſe, all mixt together and made in forme of a liniment. *Hide-bound.*

For the paine of the belly, giue him to drinke treacle or mithridate mixt with wine, afterward let him bloud the next morning vnder the toong, and in the noſtrils, or elſe cauſe him to drinke the decoction of rue and cammomill finely powdred, and let him reſt at the leaſt ſeauen or eight daies, giuing him but ſmall to eate, and keeping him well couered in a warme houſe; fower ounces of turpentine incorporated with a little ſalt finely powdred, is a ſingular remedie for the diſeaſe, if you make him take it in manner of a bole, pill, or drinke. *Paine in the bellie.*

For the falling out of the draught-gut, take three ounces of turpentine, cauſe it to be put vp into the draught by ſome litle boy which hath a long arme and leane, to annoint it diligently, and this to be continued for the ſpace of fower or fiue daies: in ſteed of the turpentime the greaſe of a hogge wil ſerue for an ointment. *For the falling out of the draught-gut.*

For the looſenes of the belly, which commeth of hauing eaten herbes, or ſuch other like things of harde digeſtion: firſt keepe him from eating of any graſſe or herbes for two or three daies, in the which time you ſhall giue vnto him the leaues of the wilde oliue-tree, plantaine, horſetaile, and ſometimes of nightſhade berries, and againe during this ſaide time, you ſhal giue him but little to drinke, this is to ſay, iuſt nothing for the moſt part. Otherwiſe, ſee that he eate no other things for certaine daies, then the leaues of orgaine, and garden ſouthernwood, and euerie day you muſt allow him onely the quantitie of two cawers of water. *Looſenes of the bellie.*

The bellie bound. To looſen his belly, take two ounces of hiera, one ounce of aloes hepatica, mixe them both well in warme water, and cauſe him to drinke them in the morning.

A broken legge. If he haue a broken legge, for to ſet it, drawe it your ſelfe, or cauſe your ſeruants cunninglie to ſtretch the leg with a rope, right out, not more to the one ſide then to the other, that ſo the broken bones may be ioyned and placed againe in euen ſort: afterward let looſe the two parts that ſo they may ioin cloſe together; apply aboue the place pleagets dipt in a compoſition made of the whites of egs, bole armenack, & dragons blood: then tie vp the member ſo ſtrong & ſtraight, as that the two ends of the bones broken may ioine & grow together againe: aboue theſe bands apply yet other moe pleagets wet in wine, for the comforting of the ſinewes. And to the end that the vpper and lower broken bone may not growe hard or get any other ill diſpoſition or qualitie either by reaſon of the binding, or elſe by reaſon of the fracture it ſelfe, you ſhall rub both the one and the other part, with a liniment made of an ounce of turpentine, with as much butter and oile.

For a legge out of ioynt. For a legge out of ioint or diſplaced, reſtore againe the bone into his place, and binde it vp after you haue annointed it with hogs-greaſe.

A ſweld foote. For a ſweld foote, make an emplaſter of the leaues of elder-tree and hogs-greaſe well boiled and mixt together.

For a ſtraitned or hardened foote, ſounder. For a foundred foote, take the rootes of mallowes and hollihocks, boile them in a ſufficient quantitie of water, ſtampt them and ſtraine them through a ſtrainer, to that which is ſtained out put halfe a pound of hogs-greaſe, three ſmal pots of very ſtrong wine, boile them altogether, vntill the greaſe be melted, then put thereto of linſeed well bruſed and beaten in a morter, and ſo boile them altogether to the conſumption of the wine. Applie ſome part of this cataplaſme vnto the foote, and let it remaine there three whole daies: and then taking awaie the ſame applie the reſt for other three daies.

Lamenes or ſurbutting. For ſurbutting, boile honie and hogs-greaſe in white wine: apply vnto the foote this emplaſter, and there let it remaine three whole daies.

Pricking of the foote. For the foot pricked with a naile, glaſſe, thorne, or anie ſuch other thing that is ſharpe, cut the horne of the hoofe as neere vnto the prickt place as poſſiblie you can, afterward drop into the hole of turpentine and oile both hot: and lay a plaiſter of honie and ſweet ſeame melted together all ouer the foote.

The claw cloven. For the claw that is clouen or ſhiuered, take honie, new waxe and turpentine, of each an ounce, and make an ointment, which you ſhall apply round about the clawe for the ſpace of fifteene whole daies, which being paſt, adde vnto this ointment aloes hepatica, mel roſatum, and roche allum, of each halfe an ounce, couer therewith the whole

whole foote, after you haue bathed it in warme wine mixed with hony.

The claw hurt.

For the claw hurt with iron or ſtone, dig and pare away the claw euen to the bottome of the hurt, with a ſmiths paring knife: drop into the ſore hot ointment made of old ſwines greaſe, & ſewet of the male-goate melted together, and put into the ſore tents of tow dipped in in the ſaid ointment.

The going off of the hoofe.

When the hoofe is like to go off, you muſt firſt ſalue it with the ointment ſpoken of before for the ſhiuered hoofe or claw, and that ſo long as vntill the horne of the hoofe be ſomewhat faſtned to againe: afterward you muſt foment it for the ſpace of fiue or ſixe daies, thriſe euery day the whole foote with wine or vineger, wherein haue boiled vnquencht lime and hony of each ſeuen ounces.

Piſſing of blood

For the piſſing of bloud, cauſe him to drinke the iuice of plantaine with very good oile: and afterward take the powder of tartar, and of wilde gourds, mingle them with red wine, and the whites of egs, and make him to drinke them with a horne. And if this do not ſtay his piſſing of bloud within fowre and twentie howres he will die.

Not to be able to piſſe.

If he ſtale not but with paine, let him bloud of the bladder veine, and cauſe him to take a drinke made of hony, oile, and white wine all boiled together, for thtee mornings one after another: afterwatd let him reſt for eight daies.

The ſtone in the yeard.

If he haue a ſtone in his yarde, firſt caſt the oxe downe vpon the ground; after let him take holde vpon his piſſe with pincers, ſomewhat higher than the ſtone lieth: then let him make inciſion in the ſide of the oxe his piſſe to draw out the ſtone, and then laſtly conſolidate and heale vp the wound with turpentine waſhed fowre times in the water of horſe-taile.

The ſtone in the bladder.

If he haue the ſtone in his bladder, take two ounces of ſea fennell ſtamped, two drams of cloues, and a dramme and a halfe of pepper: poune them altogether, and make him drinke them in red wine warm. If after you haue continued the ſame ſome certaine daies the ſtone come not foorth, then in the end you muſt cut the bladder, and ſo draw it out.

For the hardnes of the piſſe.

If his piſſe be hardned, annoint it with the ointment made of the ſtamped rootes of hollihockes and freſh butter twiſe a day.

The ſhoulder out of ioint.

For his ſhoulder out of ioint, you muſt firſt ſet it in againe, and afterward binde and roule it vp againe with ſplenters, very cloſe and faſt.

Strangles.

For the ſtrangles or glandules which happen vnder the oxe his throate, and ſpring from the braine ouer-cooled, plucke away their glandules, and after couer his head with ſome couering, and chafe and annoint with butter his throate oftentimes.

The palat of his mouth ſwolne.

If his palate be ſwolne, open the ſwelling quickly with an inciſion

kniſe,

knife, or hot iron, that ſo the corrupted bloud may runne foorth: after giue him for his meate ſome graſſe or ſoft haie.

The ſwelling vnder the toong called Ranula.

If he haue the Ranula vnder the toong much ſwolne, then open it with a hot iron, or a very ſharpe inciſion knife, afterward rub it with ſalt and oile ſo long as till all the corrupt matter be runne out: then in the end giue him ſome tender herbes or graſſe to eate.

The toung cloue.

When his toong is clouen or chopt vnder neath, annoint thoſe cleftes with an ointment made of aloes, rorche alome, and honie of roſes, all being mixt together, then waſh them in wine wherein ſage hath boiled, or ſome ſuch other drying herbe.

Loſſe of appetite.

If he haue loſt his appetite, cauſe him to ſwallow rawe egges well beate together with honie, and mingle ſalt among his meate, or giue him in drinke ſome horehound finely powdred with wine and oile: or ſtampe the leaues of rue, leekes, ſmallage, and ſage, and giue him them to drinke with wine.

The troubled eie.

For the eie that is troubled and darke, blow within it of the powder of cuttle bone, ſugarcandie and cinamome very finely powdred.

The eie ſwolne or puſt vp.

For the ſwolne eie, apply thereunto a cataplaſme made of the flower of wheate mixt with honie or the water of hony, after the manner of pappe for children.

A white growing vpon the eie.

For a white vpon the eie, applie thereto a cataplaſme made of ſal gemma and maſticke finely powdred and mixt with hony, continue and vſe this oftentimes.

The tumor called porrum.

For the leeke of the eie or tumour called Porrum, growing vpon the eielid, foment the place with the gall of any beaſt whatſoeuer it be: or which is better, ſnip away the tumour with a paire of cyſers: or make it fall away with a threed tied very ſtrait, afterward annoint the place with ſalt, vineger, and aloes boiled together.

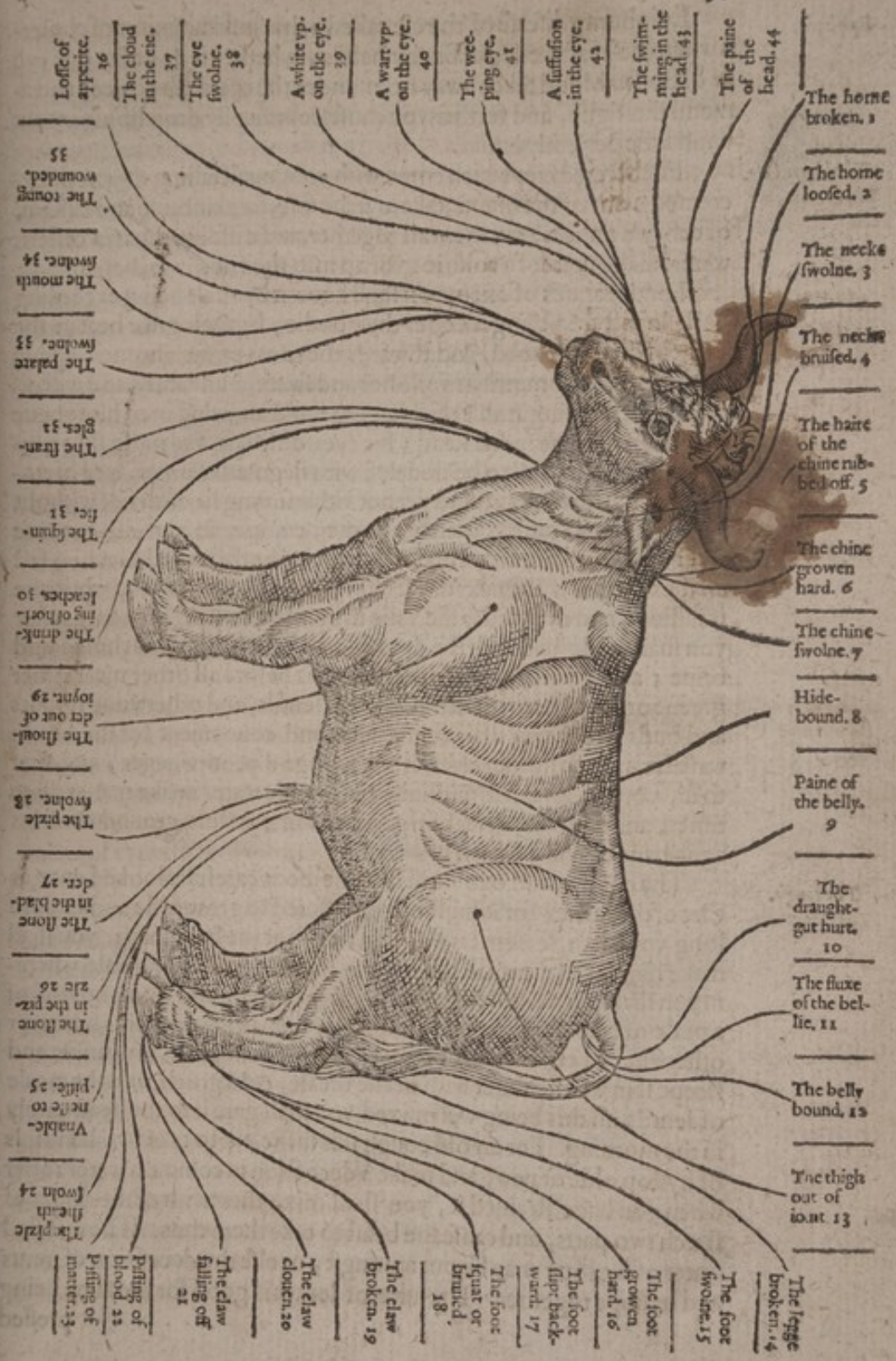
The weeping eie.

For the weeping eie, blow into it Tutia and vitrioll, made into fine powder.

The Cataract.

For the cataract, which is nothing elſe but an abundance of wateriſhnes ingendred either by ouermuch colde, or by too long ſtaie and reſpite within the eie of the oxe, in that place where the watrie humour is placed, vpon which the glaſſie humour ſwimmeth, as the cryſtalline againe vpon it. For the cure thereof take ground Iuie and ſtampe it long in a morter of wood, of the iuice ſtrained out of it make a medicine for the eie: inſteed of this herbe, if you cannot recouer it, take the berries of iuie or the leaues, and draw the iuice of them in manner aforeſaid. Continue and vſe the one medicine or the other for many daies both morning and euening, the cataract will conſume and waſte away. It is certaine that who ſo inſteed of water ſhall vſe wine, ſhall ſeeme to deale more fitly and better to the purpoſe.

Epiphora


The horne broken. 1
The horne loosed. 2
The necke swolne. 3
The necke bruised. 4
The haire of the chine rubbed off. 5
The chine growen hard. 6
The chine swolne. 7
Hide-bound. 8
Paine of the belly. 9
The draught-gut hurt. 10
The fluxe of the bellie. 11
The belly bound. 12
The thigh out of iount. 13
The legge broken. 14
The foot swolne. 15
The foot growen hard. 16
The foot slipt backward. 17
The foot squat or bruised. 18
The claw broken. 19
The claw clouen. 20
The claw falling off 21
Pissing of blood. 22
Pissing of matter. 23
The pizle sheath swoln 24
Vnableness to pisse. 25
The stone in the pizzle 26
The stone in the bladder. 27
The pizle swolne. 28
The shoulder out of iount. 29
The drinking of horse-leaches. 30
The squinsie. 31
The strangles. 32
The palate swolne. 33
The mouth swolne. 34
The toung wounded. 35
Losse of appetite. 36
The cloud in the eie. 37
The eye swolne. 38
A white vp-on the eye. 39
A wart vp-on the eye. 40
The weeping eye. 41
A suffusion in the eye. 42
The swimming in the head. 43
The paine of the head. 44

Epiphora. Epiphora a diſeaſe of the eie called a drie inflammation of choler, is when the beaſt ſeeth not but by halfes, whether it be of the one eye or of both, bloud taken away from vnder the eye doth correct and amend the ſight, and further you muſt continually drop honie into it vntill it be perfectly cured.

The bleered eie. For bleered eies which come with continuall falling downe of excrements out of the braine, take myrrhe fine, frankincenſe and ſaffron, of ech two ounces, mix them all together, and diſſolue them in ceſtern water, make thereof a collirie to drop into the eies.

An ague. For the agues of oxen, you ſhall know it by their being exceeding reſtleſſe and trembling all ouer their bodie, by their great heat in the midſt of their forehead, and towards the roots of their hornes, and in their eares; their mouth is verie hot and ſweat abundantly, and withall eat almoſt nothing at all; the hanging out & drawing in of his tongue verie drie; heauie in his head; his eyes diſtilling and halfe ſhut; his muzzle filled and all to be drieueled with flegmatike water, and his taking of his breath long, and yet notwithſtanding he doth not without great paine and much diſtance of time, complaine himſelfe or turne often. The firſt day that you ſhall perceiue him thus ſicke let him faſt all the day long; the next day let him bloud in the morning whiles he is faſting, and that vnder the taile in ſmall quantitie. Fiue dayes after you ſhall feede him with the decoction of clot-burre with honie and brine; at the leaſt you ſhall offer him this before all other meat either greene or moiſt, as ſhall be the crops of lentils, and other yong ſprouts and buds which you ſhall thinke meet and conuenient for the beaſt: waſh his mouth thriſe a day with a ſpunge dipt in vineger, and after that, you ſhall make him drinke verie colde water in like maner three times, and ſo you ſhall let him goe into ſome paſture ground vntill his ague haue cleane left him.

The cough. The cough of an oxe muſt likewiſe be as carefully looked vnto as that of the horſe, for it muſt not be ſuffered to grow olde and endure long vpon him, ſeeing it is not curable but at the beginning, you ſhall make him take faſting halfe a quarter of a pecke of barly meale, wherein you ſhall put a whole egge the ſhell excepted, and with a quarter of a pinte of cuted wine, you ſhall make him drinke it with a horne or otherwiſe: or elſe take of dogges-graſſe and ſtampe it, after mixe and ſteepe it in warme water with beane meale, cold gruell, and the meale of lentils, all this being well mixed, you ſhall giue it to the beaſt earely in the morning. For an old cough it is ſufficient to take two handfuls of hyſſop olde or new, and make a decoction in common water: after when you haue ſtrained it, you ſhall mixe therewith of the flower of ſtarch two parts, and cauſe the beaſt to take them thus. The diſtilled water of hyſſope may be put amongſt, or elſe the decoction of mints and hyſſope together. The iuice of leekes is good for the ſame being

preſſed

preſſed out well and ſtrongly and giuen with oyle oliue : for there hath not beene knowne ſo old and long growen a cough, which the rootes of leekes, waſhed, made cleane, and giuen in decoction with the flower of wheat, hath not put downe and rebated the ſtrength of: Of the ſame effect is the flower of the euerlaſting tare commonly giuen and vſed, or offred with honied water, at ſuch time as the oxe drinketh moſt at his mouth.

Paine. For all manner of paines in what parts of the bodie ſoeuer they be, cauſing the oxe that he can neither goe nor doe any other thing well, make fomentations and apply cataplaſmes with the decoction of cammomill, melilot and linſeed.

Headach. For the ach of the head, bray garlicke in wine and make him let it down through his noſtrils: after bathe all his head with the decoction of the leaues of ſage, marierom, lauander, rue, bay leaues and walnut-tree leaues in wine.

Scabs. Scabs are healed with duckes greaſe mingled with oyle oliue ; or elſe take the gall of an oxe and powder it with ſulphur viuum, adding thereto myrrhe, oyle, and vineger, and a little plume allome well brayed and ſmall pouned. Exulcerated places cauſed either without manifeſt occaſion, or elſe by ſome accident, are verie much holpen with the powder of galles wel brayed in a morter: ſo are they likewiſe by the iuice of horehound, wherein hath beene ſteept the foote of a ſmithes forge. *Vlcer.*

The diſeaſes of the flancks In the diſeaſes of the flankes wherewith oxen are oftentimes tormented : you muſt make a cataplaſme of three handfuls of the ſeed of coleworts, with a quarter of a peck of ſtarche well powned together & mingled with cold water, applying it afterward vnto the pained places. But the moſt ſoueraigne that may be found, is : to take of the leaues of cypreſſe without the boughes, three handfuls, and to doe as is aboueſaid, adding thereto ſtrong vineger to knead and diſſolue the ſame in. But if this will not, then take three ounces of perroſin, or colophoni which is more hard, and diſſolue and make them liquid at the heate of the fire: and whiles it is yet good and hot, mixe therewith the flower of barley, and make it all boile together, and ſo you ſhall apply this cataplaſme verie hot vpon the flankes and ſo vp to the raines.

The paine of the reines. It is to be knowne that the oxe hath paines in his reines when he ſeemeth to draw his hinder partes after him, and cannot lift his legges behinde for his beſt eaſe ; he ſtaggereth and ſoltreth behind ; he beareth not vp his taile, but ſuffereth it to draw all along after him ; his ſtale hath an ill ſent, and all his hinder loynes ſhew heauie, moue not but conſtrained, and that in mincing manner. If there be any inflammation about them he piſſeth red as blood. If this continue and that he caſt foorth much ſuch, there is then no more remedie : but and if it be but a little coloured with blood, there is ſome hope of recouerie.

For

For this diſeaſe you ſhall cauſe him be let bloud vpon the taile veines behinde, or elſe of the veine called the mother veine, which is found alongſt the flanke, to draw neere vnto the reines. For his drinke make him to take the iuice of leeks with warme water, or elſe his own vrine.

Inflammation. For the inflammation of the muſcles aſwell outward as inward of the reines and flanks, which commeth of ſome fall that the beaſt hath taken in ſome hard and ſtony place, and which hapneth not without the company of a contuſion, appoint that the ox which hath fallen, ſo ſoone as he commeth into his houſe, do not remoone from one place, bathe the hurt part with cold water: after that vſe and applie vnto it comfortable liniments and ſeareclothes which may not be too hot. The markes of this diſeaſe are, the outward parts ouer againſt the reines are hard, the cods hung ſhort being gathered into the body, and that in ſuch ſort as that there is not much of them left out to be ſeene; he ſtirreth not his hinder legs with any eaſe: and when he is laid, he riſeth not but with very great paine.

Paine in the heele. Of very great cold gotten by hauing trauelled in ſnowie and froſen places; or elſe after ſome thaw: the fault alſo may be committed in not hauing his paſternes ſo well bathed with vrine, and couered ouer with dung as they ſhould at euening after his labour: for vpon theſe cauſes the heele groweth exulcerated, and maketh ſhew as though it would fall off and looſe his place; there beginneth a bearing out, which afterward turneth to an vlcer, and troubleth the gate of the oxe: the place muſt be very deepely ſcarified, and a ſlight fire applied afterwarde to the places ſcarified, and againe vpon the places ſo ſcorched the ſweete ointment, otherwiſe called ointment of roſes, with a defenſatiue of vineger and water, and ſo bound vp and rouled. The core once fallen out, the place muſt be waſhed with vrine and vineger made hot: after this there muſt be an emplaiſter or cataplaſme of melilot made, either of the fore appointed, or of olde ſwines-greaſe, wrought and plied betwixt your two hands.

The cods ſwolne. If the cods be ſwolne vpon any occaſion whatſoeuer, you ſhall annoint them euening and morning with ſweete ſeame, or elſe bath them with ſtrong vineger, wherein ſhall be tempered fine fullers earth, and the dung of oxen. Some holde it for a naturall remedie to haue the dung of a dogge to cure the ſwellings of an oxes genitories, if ſo that they be often rubbed therewithall.

The inchanted or bewitched oxe. The oxe is inchanted aſwell as the horſe, either by hauing eaten, or by hauing paſſed vnder the croſſe of a charmd ſtraw, or ouer a marked log: the ſignes are, he becommeth ſad and not ſo cheerefull and quicke as he was woont at his worke, yea he conſumeth and pineth away, if there be not prouided for him a very good remedie: cauſe him to take downe through his noſtrils; bitumen iudaicum, brimſtone, baie berries or iuniper berries, all mingled with warme water.

So

So ſoone as you know that the oxe is ſicke of any diſeaſe whatſoeuer it be, cauſe him to take this purgation, the root of the ſea-onion, of harts thorne, and of common ſalt, all being boiled in water & taken in the ſame water warme, and giue him nothing to drinke or eat vntill it haue done purging. And to the end that you may keepe him from being ſicke all the yeere, at the beginning of the Spring, Summer, Autumne, and Winter, cauſe him to take downe a drinke made of the leaues of capers, mercurie, and cypres pouned and mixed in water, and let reſt in the veſſell one whole night, and ſo continuing this for three mornings. *For all the diſeaſes of the oxe.*

If he haue beene bitten of any adder, ſcorpion, or ſhrew, or mad-dogge, it is ordinarie to anoint the wound with oile of ſcorpions, or with ſope tempered and ſoftened in vineger: alſo ſome vſe to waſh them with the decoction of butter-burre. *The biting of adders, ſcorpions & ſhrews.*

And againſt the ſtinging of hornets it is accuſtomed to rubbe the place with ceruſe tempered in water, and ſome doe ſprinkle the place of the oxe his feeding with the decoction of bay-berries, thereby to cauſe the oxe flies to auoid and keepe away; or elſe they rub the oxen themſelues with the ſaid decoction: and if he be alreadie ſtung, ſome do moiſten the place with the oxe his owne drinell. *The ſtinging of hornets.*

The ſmall beaſt abiding in the graſſe, called of the Latines *Bupreſtis*, and reſembling in ſome ſort the beaſt which the French-men call *Fouillemerde*, if it be eaten of oxen, kine, or horſe, as they feed in the medowes, it ſo ſwelleth them as that they burſt and die, as we haue obſerued in many in the yeere paſt 1572. Now if the Neatheard doe perceiue that any of his oxen or kine haue eaten any of theſe beaſts, he muſt make them preſently to drinke ſome cowes milke, or the decoction of dry figs, or dates in wine, and withall giue them very ſtrong clyſters. *Againſt the eating of Bupreſtis and the ſnaile.*

For the ſcab, ſome rub them with bruiſed garleeke, ſauorie, brimſtone, and vineger of galles ſtamped in the iuice of catmint, or horehound and iuie. And as for vlcers they are rubbed with mallowes ſtamped in white wine: and as for cornes and apoſtumes they muſt be killed with ſtrong leauens, onions, lillies, or ſquils and vineger, and afterward to digge them out and waſh them with the beaſts owne ſtale hot, and alſo put into the hollow places tents of tarre, and finally lint dipt in goats or oxe ſewet. *Scabs and vlcers, cornes and apoſtumes.*

For the paine of the eies, if they be ſwolne and puffed vp, there muſt be made an eie-ſalue of the flowre of wheat kneaded with honie and water. *Paine of the eies.*

If there be in them euer a ſpot or naile, you muſt take ſal-armoniacke, and make an ointment thereof with hony. *Spots.*

When the oxe hath his eie continually trickling downe teares, and beraieth all his cheekes with the humour dropping downe from it. *The weeping eie.*

it, take of the pappe that is made with wheate flower, and make a cataplasme to be applied vnto the eie. The wilde poppy, stalke and root stampt with hony, serueth to make a medicine for this purpose.

Paines of the flankes. In the paines of the flankes which often times torment oxen, you must make a cataplasme of three handfuls of colewoort seede, with a quarter of a pecke of starch well stamped together, & tempered with cold water, & after apply it vnto the parts pained. The best remedie that can be found for them, is to take of the leaues of cypres without the boughes three handfuls, and to doe as before, adding to them strong vineger to worke and dissolue them in.

Paines in the reines. In the paines of the reines, you must let him bloud in the veines vnder the taile behinde, or else the veine called the mother veine, which is found along the flankes drawing neere vnto the reines: for his drinke giue him of the iuice of leekes with warme water, or else with his owne vrine.

Scabs and lice. For the scab, you must rub it with his owne stale, and with old salt butter, or anoint it with perrosin melted in white wine. Vnto lice, you must vse the decoction of the wilde oliue tree with salt, and you must take away the bladders which he hath vnder his toong. For the paine of the lunges, some make him drinke the iuice of leekes with sweete white wine: and some put into his eare the root of hazle tree.

Difficult and hard fetching of his breath. For the difficultie of breathing, some doe pierce his eare, or the great skinne of his throat, with the root of beare-foot, or lions-paw, or hellebor.

Shoulder pitcht. If hee haue his shoulder pitcht and shrunke, you must let him bloud vpon the foot behind and on the contrary side: and if both his shoulders should be shrunke, then you must let him bloud on both his hinder legs.

The necke bruised. If he haue his necke broken, and the chine bagging and swolne, you must let him bloud vpon one of his eares: and if it be in the middest of the necke, then of both, and lay vnto the disease an emplaister made with an oxe marrow and sewet of a male-goat, molten in equall portions in oile and tarre, or melted pitch, as also to rubbe the swelled part with a collop of bacon without any fat, and which is of a hogge, and a little heated, and this to be continued morning and euening, the space of fiue or six dayes.

Swolne feet. If his feet swell, you must apply vnto him a cataplasme made of the leaues of the elder tree, stampt with seame made of hogs-grease.

The skin cleauing to the bone If his hide cleaue to his bones, you must bathe him with wine, either alone, or mingled with honie.

The halting exe. If he halt by taking cold on his feet, you must wash them with his owne stale, olde and warme: if it come through abundance of bloud falling vpon his pasterne and foot, it must be dissolued by rubbing it

hard

hard and ſcarrifying it. If yet it will not away, and be notwithſtanding but newly fallen down, you muſt cleaue the horne of the hoofe at the tippe thereof euen to the quicke, and ſo cauſe it come forth, and wrap his paſterne in a leather pouch, in ſuch ſort as that the water may not hurt him till he be whole. If he halt by reaſon of ſome ſinewe hauing taken a blowe by ſome other beaſts heele, then you muſt bath his legs with oile and ſalt. If it come with any ſwelling in the knee, you muſt bathe it with vineger made hot, or with the decoction of millet and linſeede. In all ſuch haps you muſt burne with a hot iron the part diſeaſed, and then put vpon it freſh butter waſht in water and vineger, and after in the end to make an ointment with ſalt butter and the greaſe of a male goate. If it grow vpon anie ſplint or daſh againſt any ſtone or ſtocke, you muſt bathe the place with hot ſtale, and lay vpon it old hogs-greaſe melted in oile and tarre. And there is nothing that will more keepe them from halting then to waſh their feete with cold water ſo ſoone as they bee vnyoked, and after to chafe them with old hogs greaſe.

If the horne cleaue or ſhiuer, you muſt firſt foment it with vineger, ſalt and oile mingled together: after put vpon it olde ſwines greaſe melted with new pitch, or elſe to greaſe it there with ſpech-greaſe for fiue or ſixe daies, for this will ſtay the cleauing of the horne, and make it cloſe and faſt where it was ſhiuered or any way ſundered. *The horne clouen.*

If an oxe doe put forth new and yong clawes, his hoofe being fallen off, then make an ointment with an ounce of turpentine, an ounce of honie, and as much of new waxe, and therewith you ſhall annoint the claw for the ſpace of fifteene daies: after that waſh it with warme wine boiled with honie: or elſe applie thereto a cataplaſme made of aloes, honie of roſes, and halfe an ounce of allome made in powder. *The hornes of his hooues fallen off.*

Buffles or wilde oxen called buffes, are better for drawing of a loade, then in the turning of the ground: for they are neuer ſo free, nor yet ſo ſtoutly ſtanding to their worke, cleane contrary to the oxen of France which are fitter for the tilling of the ground then for the cart, as being more ſtrong, more nimble, and fitter to toile ſo great diuerſitie of groundes, as we haue in France, whether they be mountaines, tops of hils vallies, voide fields or plaines: to be breefe, where ground is ſoft, rough, light, hard, white, blacke, and of diuers natures. In Italie about *Piſa* and along the *Marenme* (as it is there called) their buffles, of which they haue great ſtore, are imployed in draught, being faſtned by couples one after another to the number of twentie or thirtie together in one teame: the cheeſe which is made of the milke of the females, and turned round, is of an vnſauory taſte, but when it is cut in ſlices and fried in a pan it is ſauorie. Wilde oxen, which are called in *Prouence* and *Languedoc* brans or branes, are not fit for anie thing by reaſon of their great furiouſnes and wildnes, except onely for *Buffles or wilde buls.* *Oxen called Brans.*

the shambles: such oxen are brought vp in the fennie places of *Lamargues*, and vpon the sea coast, far from the haunt of other beastes or walke of man.

The labour of the bull is not good.

As also the bull which is brought vp in the pastures of villages, and keeping among the herdes of other beastes, and acquainted with men, is not good or profitable for the plough, for that he is too sturdy, and will not match himselfe with gelded oxen. Neither yet is there any great good reaped of the labour of a gelded cow: but you must keepe and fat the bull by himselfe for the kine, which shall be put to take him about the moneth of May, Iune and Iuly, and one bull is enough for threescore kine.

The time for the kine to take bull.

One bull for threescore kine.

To fat oxen to sell.

The oxen intended to be kept to be fatted & sold, shal not draw but some one or twise a weeke, & that when it is faire weather and a good season; and that the earth is easie and gentle, and they shall meddle but with little burdens, onely to exercise them: and they shall eate nothing but barlie, hay, and sheaues, and sometimes the yong buds of vines, and others such as they loue: and that oxe which hath wrought in the morning shall rest at afternoone. The auncient Romanes did fasten some small quantitie of hay to the hornes of such oxen as would strike with the horne, to the end that all that met him shoulde take heede. And hence riseth the French prouerbe: He weareth hay on his horne, pointing out a hot & wrathfull man, in as much as oxen, horse, asses and men themselues become fierce and outragious, by being ouer fed, and eating their full according to their harts desire.

An old oxe.

When as once the farmer doth perceiue that his draught oxe is vnfit for labour, he shall feede him sometime not letting him doe any thing, after which he shal kill him and salt him in peeces, for the yeerely nourishment of his familie, and by the same meanes shall reserue the marrow and the gall of the oxe for his seruice and vse when hee shall haue neede. For the marrow of the oxe doth very much good in resoluing and softning hard tumours. The gall of the oxe is yet better then that of the bull, it doth throughly heale the vlcers of the fundament mixed with the iuice of leekes: being dropt into the eare it doth take away the buzzing of the eare: being rubd about childrens nauels it killeth the wormes: being mixt with honie it is good for the inflammation of the throte: mixt with the iuice of beetes and drawne into the nose, it putteth away the fit of the falling sicknes: it is more profitable then any other thing to giue a yellow die and colour vnto skins and brasse: being scattered and sprinkled vpon seedes, it maketh that the reaped corne will not be deuoured or eaten with mise,

The stone of the oxe-gall.

There is sometimes found in an oxes gall a stone of the bignes of an egge, and of a yellow colour: which giuen in drinke is very good against the stone and iaundise, applied vnto the nostrils it maketh the sight more cleere, and hindreth the falling downe of rheume vpon

th

thecies. In like manner husbandmen may doe themselues much good by the vse of neats dung: for it cureth the stingings of bees, resolueth swellings and all manner of tumours, mitigateth the paine of the sciatica, and maketh a great deale lesse the swelling called the kinges euill, mixt with vineger: it wasteth tumours comming of a dropsie, being fried in a pan, with the flowers of cammomill, melilot, and brambles, and applied vnto the swolne testicles, it restoreth them vnto their naturall proportion and bignes.

The dung of oxen.

The fower and twentith Chapter.

Of the hogherd.

OF all the cattell that serue for foode, the most rauenous, the most filthie, and the most harmefull (that is to say the swine) is had in great estimation and much commended among vs for the sweetnes of the flesh, whiles yet it sucketh & is yoong, both for the souce and salted partes thereof, as also for the larde, the skin, and the bristles thereof. The rauenousnes and greedie feeding of this beast is witnessed by the sowe which the French king killed in hunting, within whose bellie were found sixe pailes full of grapes. Their filthines and stench, their wallowing of themselues, their eating of stinking and filthie things, as also the harme that they doe, may be answered and prooued by their rooting vp and vnderminning of wals by the foote and bottome, the trampling which they keepe about trees, meadowes, and vnsowne places. For this cause in a farme of great reuenues (such a one as we describe in this place) there needeth a speciall man onely for that purpose, to gouerne and guide them in the fields: even such a one as knoweth to dresse and order his herd in good time, and in cleane and cleanly sort to put the pigs that are wained in one place with the bores and hogs: and the sowes with their yongones into a second place by themselues; and yet further, the sicke and diseased into a third particular place by themselues. Fresh straw oftentimes giuing them and renewed, doth fat them as much as their meate: and you must take care that their troughes be alwaies cleane. And against variable weather the hogherd must haue in store mast, acornes, beanes, crabs or wilde peares, or some other rotten fruit, some manner of pulse, or some washings of vessell: and for want hereof some steept barlie together with bran and colewortes, or boiled turneps, or great nauets, to offer vnto them: and euery day when they come from the field, let the huswife procure in readinesse for them, some daintie hot meate, as whay, the droppings of the cheese mingled with bran and water, hauing first had three or fower boiles together: for besides that this good attendance wil cause them to make haste home and not to forsake their compaine to run straggling abroad, when the

The hog a greater feeder then anie beast, which is for mans foode.

Six pailes of grapes found in the bellie of one sow.

The commodity of fresh straw.

Swines meat.

hogherd would haue them to come home : these hot drinkes and meates doe also heate the colde meates, which they shall haue fed vpon in the field all the daie long, and thirdly they will rest better in the night, and lastly not become so subiect to diseases : and let there be speciall care had that their meate be not cold nor too thin, least it cause them the fluxe of the belly.

The swine cote. Let the floore or pauement of their cote be laide with thicke paning stone, and euery moneth renewed with grauell or sand to dry vp their pisse, for this beast though he be sluttish and dirtie, doth notwithstanding prosper best in a cleane house that is well kept and maintained. And to the end that the corruption of the aire which this kinde of beast maketh in close places may not cause him to haue either any ill sents or other diseases to grow vpon them in their cotes, especially when they are in any number together : it behooueth that the doore thereof be made with thorough lightes of great barres, or clouen bordes, to the end that their euill aire may passe away, and that which is good may come in place continually, and it is meete that the doore should giue downe verie neere vnto the causey, to the ende that they may not rut it vp with their snouts, and cast it off the hinges : for this cattell can hardly indure to be shut vp, but gnawe and bite with their teeth, whatsoeuer it bee that hindreth them from comming foorth where they are inclosed.

The feeding of hogs. The hogs which you intend to keepe in and to fat, shal not come foorth of their stie, being alone and free from others, neither shal they haue any light but at the doore which is made to go in at for to dresse them. The care about them is not so great as of other cattel, excepted onely the keeping of them cleane, and knowing how to make them good meate, so long as vntill they be fat, for after that they will euerie day leaue some of their meat, not stirring out of their place, as though they were without feeling and power for to mooue, in such manner as that though the great height of fatnes that they are growne vnto, and the thicknes therewithall, mise may sometimes make their nests vpon their backs, and yet they not feele them, for they are sometimes seene to haue such quantitie of fat vpon the liue flesh, as that there are some found a foote and a halfe thicke of lard.

Tenne bores, for a hundred sowes. Keepe not aboue ten boares for a hundred sowes, and so foorth proportionably : the rest as well males as females let them be waned, and gelded after a yeere old, or sixe monethes at the least, howbeit the most infallible time & opportunitie is, when they begin to growe hot and go a brimming. Suffer not aboue eighteene pigges ordinarily to sucke one sowe, but sell the rest at eight or ten daies old : and a yeere after waine and geld the rest, and so put them to the field: keepe

Eighteene pigs to one sow

Signes of a good hog. those especially which haue a short and broad head, the snout set high and long without, the brest fat and broad, the chine of the necke large,

large, his feete ſhort, his thighes great, and in the reſt very ſhort, groſſe, ſquare, and well packt together, of colour blacke or white and full of brittles vpon his backe, for to make bores: and thoſe which are very long, ſide bellied, great headed, large buttockt, and ſides giuing out, likewiſe all of a white colour, a ſmall head, and ſhort legs, for your ſowes: of the reſt make prouiſion for the houſe.

Let not your gylt go to bore, till ſhe be paſt a yeere old, and let the bore be betwixt three and fower: for after he be paſt fiue he muſt be gelded to be fatted. The time to put your ſow to the bore whether it be to breede, or to put vp to feede, is beſt in the firſt quarter of the moone, and vnto the full, for before it is not good, no more then it is in the old of the moone: and it ſhall be from the beginning of Februarie vnto mid March, or a little after, to the end that in Iune, Iulie, and Auguſt, your pigs may grow to haue ſome ſtrength, and may be well growne and thicke of haire by September: for winter pigs are hard to reare, and not ſo kinde as the other: becauſe this kinde of cattell is more chill then the others, which is the cauſe that in many places they haue their cote and ſtie prouided and dreſſed with lime and ſtrawe, although they haue ſufficient ſtore of ſtone, lime, ſand and plaſter: you muſt alſo beware that the bore keep not companie with the ſowes that are with pig, for he would but bite them and cauſe them to caſt their pigges. *The time for the ſow to take bore.*

This beaſt is a great eater, and cannot indure hunger, eſpeciallie the ſowes, which in this neceſſitie haue beene ſeene ſomtimes to eate their owne pigs, and thoſe of others, as alſo children in their cradels, which is no ſmall inconuenience: and therefore you muſt haue care that their troughes be neuer emptie. *The hog cannot abide hunger. Sowes eating their owne pigs and children.*

For to make hogs very fat, you muſt geld them. It is beſt to geld them in the olde of the moone, in the new, or in the wane, and in the ſpring or September, the time being temperate. If you gelde them yoong, the fleſh will be the better, but then they growe not ſo much: if you geld them growne ſomewhat bigge, they growe a great deale more, but then the fleſh is not ſo good: and therefore it will be good to do it when they are betwixt fower and ſixe monethes old, and at the moſt not to go aboue a yeere. They are ſubiect vnto many diſeaſes, and the hogge is knowne to be ſicke when he hangeth the eare very much, and doth become more ſlowe and heauy then hee hath beene accuſtomed, or that he is found to be without appetite: for your better cartaintie when there do not appeere any of theſe ſignes, pull from him againſt the haire a handfull of the briſtles of his backe: if they be cleane and white at the roote, he is ſound and healthfull: but and if that they be bloudie or otherwiſe ſpotted, he is ſicke. *The time to geld hogs. How to know the diſeaſes of hogs.*

But he is ſubiect eſpecially to be meazled, becauſe of his much and filthie feeding, and this is the cauſe why ſome do ſearch the rootes of *The meazle in hogs.*

his toong, & others behinde the eares, when he is carried to the markets to be ſold in faires or in good townes. And I thinke that this was the cauſe why our forefathers made it not an ordinarie thing to eate, and that the Iewes do abhorre to eate it at all. This diſeaſe is not cured but with great difficultie, notwithſtanding it will in ſome ſort be cured, if his ſtie be euery day made cleane: if he be ſuffered to walke and go into the fieldes in the freſh aire: if he be cauſed to bathe or wallow himſelfe oftentimes in ſea water, or ſalt water: if he haue baie berries beaten and mingled amongſt his meate: if there be giuen him the droſſe of the wine preſſe mingled with branne and leauen. Now there are three infallible ſignes to know the ſwine to be meazeled, as if there be found vnder his toong blackiſh puſtules: if he cannot carry himſelfe vpright of his hinder legs: & thirdly, if his briſtles puld off his backe ſhew bloudy at the rootes. Likewiſe for that the hog, by reaſon of his filthines, for the moſt part hath one fault or other betwixt his skin and fleſh, how ſound ſoeuer he bee, it is good after he be killed to haue his haire ſwinged off with ſtraw, rather then to ſcald them off with hot water: for the fire doth draw out a great deale more eaſily then warme water, that whatſoeuer it is, that may be betwixt the skin and the fleſh.

The way to cure the meaſell hog.

Signes of the meaſled hog.

It is better to burne, then to ſkald hogs.

He is alſo ſubiect vnto the paine and ſwelling of the ſpleene, and to the murrain, which in contagious times, doth a great deal the more eaſily ſeaze vpon foule and filthie bodies, and ſuch as are of a badde feeding.

Subiect to the murraine and ſwelling of the ſpleene.

Againſt his want of ſtomacke to his meate, it is vſed to cauſe him to faſt a day and a night cloſe ſhut vp in ſome darke place, that ſo he may waſte his ſuperfluous humours and fall to eate his meate againe.

Lacke of appetite.

For the ague he is to be let blood in the taile, and for the rhume & ſwelling of the kernels of the necke, or yet when he is but ſuſpected to be meazled, he is to be let blood vnder the toong.

Phyſicke for ſwine. Ague, Rheume.

For paine and ſwelling hapning vnto him in the time of fruites, when there is great ſtore, & that he feedeth his full vpon the rotten: he muſt be cauſed to eate old capers wel ſcoured from ſalt through bran and water: as alſo much coleworts as well red as others, and ſome doe make him a ſpeciall meate of tamariske.

Swelling.

For the ſcabs and kernels of the necke, ſome vſe to rub him with beaten ſalt with the flower of pure wheate:

Scabs.

If he haue eaten of henbane, which ancient men haue called the hogs beane, or elſe of hemlocke, he muſt be made to drinke the decoction of wilde cucumers well warmed, for to cauſe him to vomit.

The eating of henbane or hemlocke.

He muſt aboue all other things be well kept with drinke in the time of the dog daies, and other ſuch hot times, and to ſuffer him to moile and tumble in the dirt at his pleaſure: for thirſt cauſeth him to become poore and leane and in weake eſtate.

Thirſt.

The

The Egyptians do greatly honor the ſwine, & giue him manifold thankes for hauing firſt ſhewed them the maner of tilling the ground, by cleauing and cutting of it with the forepart of his ſnout, and as one that by little and little hath taught them to make the ploughes culter: in like manner they which dwell in low and ſoft places along by the riuer *Nilus*, haue no increaſe of the earth but what they toile and labour out of the ſame with the plough; but the peſants do nothing but put their ſwine into their fields and goe after them with ſeed, and becauſe that ſwine haue the gift to dig vp the earth with their ſnouts, and to tread in the corne with their feete, they vſe them to ouerturne all their ground out of hand, and ſo to couer the ſeed; which the countrie people haue caſt vpon the ſame. *Swine honored of the Egyptians.*

Furthermore, the good houſhoulder beſides the good prouiſion that he ſhall make for himſelfe and his family of the porke cut in pieces and well ſalted in his larder; ſhall further gather his greaſe for the axe-trees of his waines and carts. Againe, the good huſwife ſhall make her profit of it in like manner for the diſeaſes of her family, in as much as it is verie good to draw to a head all ſorts of apoſtemes being mixt with leauen, as alſo to heale the moules of the heeles, if the powder of galles be mixt therewithall, and the aſhes of the flower of barley. *Hogs-greaſe.*

It is vſed in a common prouerbe, that the ſwine hath nothing in him but it is good, his ordure and dung excepted; but experience ſheweth the contrarie: for the dung of a ſwine fried with freſh butter and equall quantitie of lumps of cluttered blood ſpet out by him that bleedeth abundantly, being giuen to the partie ſo bleeding to eate, doth ſtay and ſtop preſently his ſpetting of blood. *Swines dung.*

It remaineth that wee declare how we ought to ſalt ſwines fleſh. All manner of cattell (but eſpecially the ſwine) which we intend to vſe for meat, muſt be killed in the new of the moone or in the firſt quarter. For if you ſhould kill it in the decreaſe of the moone, looke how much the longer you defer to ſalt it, ſo much the more time and fire muſt it haue to boile it, when you ſhould vſe it; and for this reaſon a ſauſidge or ſuch other like meate doth become leſſe by a quarter when they are boiled. For this cauſe alſo it is that the skilfull husbandman will not buy theſe kindes of beaſtes to make his prouiſion of, if he be not ſure that they were borne in the increaſe of the moone: For otherwiſe alſo they doe grow but little, and their fleſh is not of ſufficient waight when as one hath kild them. Kill therefore your ſwine in the increaſe of the moone, and let them not drinke the day before you intend to kill them, that ſo their fleſh may be the more drie: for and if they drinke the ſalting time will haue the greater quantitie of ſuperfluous moiſture to drinke vp: alſo the fleſh will be the better if they be kept faſting but one halfe day before they be kild. Now when you *To pouder ſwines fleſh.* *To kill ſwine in the increaſe of the moone.*

haue thus killed them in their thirſt and halfe famiſhed, it ſhall be for the beſt to take out as many of the bones as you can, for this wil cauſe the ſalting to be of better effect preſeruing the fleſh the longer from corruption. After cut the fleſh in pieces and put it into the ſalting tub, making as many beds of ſalt groſly braied as there is of fleſh, the one aboue the other. And when the ſalting tub ſhal be in a maner full, you ſhall fill vp the head with ſalt, and preſſe all downe togither with verie heauie waights. Some put theſe pieces and the ſalt within a table-cloth, or within a ſacke that hath two mouthes, and ſhake it vp and downe therein that ſo it may take ſalt in euerie place, and afterward lay it orderly in the ſalting tub, ſtrawing ſalt vpon euerie bed. In ſome countries they vſe not in ſuch ſort to cut it in peeces to cauſe it to take ſaſt, neither doe otherſome put it in ſalt brine in a cloſe powdring tub: but after that they haue made it into pieces, they deuide all the larde in two, and ſalt theſe two halfes all of them, making the ſalt to pierce and enter into them with a rowling-pinne: and this thing is not done at one time, or in one daie, but at two or three times, and in two or three daies ſpace: after they hang them to the iouice of ſome borded floore, or to the crookes ſet vp in ſome vaulted roofe, if ſo be there be any vault: and the lard thus ſalted is more faſt, of a better taſte; and if it fall out to be long kept, and to paſſe a yeere, it groweth to be of a golden colour, ſo it is better to ſalt and keepe it thus for them which deſire to haue that which is excellent good, rather then after any other faſhion that hath beene ſpoken of heeretofore.

The fiue and twentith Chapter.

Of the ſhepheard.

The care of prouiding ſheepe and the profit thereof.

IF the greater part of the profit of a farme depend vpon and conſiſt in the keeping of cattell, which is perfourmed by that part of increaſe which the farmer ſpareth in his fodder, ſiftings, ridlings, and ſuch other things which coſt him nothing but the paine to gather and lay them vp: then I dare be bold to auouch it, that the moſt profitable and fruitfull prouiſion for the countrie houſe is of ſuch beaſtes as bring foorth wooll. It is true that there muſt all diligence be vſed to keepe them from colde, from the purples, from the ſcab, from two much rankes of blood, from the rot, and other ſuch inconueniences, as ſometimes ſpread and proceed from one to another, and that hee hath likewiſe care and doe his whole indeuour, in keeping them both in the fieldes and at the cratch: but it is as true that there riſeth as great profite and commoditie to the farmer. For beſides the dung which they make, and which exceedeth all other kindes of dung in goodnes, for the great ſubſtance, ſtrength and hartning which it gi-

ueth

ueth vnto the grounde, they bring yet infinite other commodities: as by wooll, whereof are made cloth, hats, caps, and manie other ſtuffes: by their fels which ſerue for furre or for leather: by their milke, whereof are made cheeſes verie excellent, as may be ſeene by thoſe which the towne of *Betune* doth affoord: and finally by their fleſh, which is ſo good and excellent of it ſelfe, that no continuall vſe of it doth euer make it the leſſe pleaſant in the eating; ſo that for certaine it may be ſaide of it, that if the fleſh of this beaſt were as ſcarſe as that of the fawne, hinde, and other veniſon, it would be the onely veniſon of requeſt before all other in the world. And this further is to be ſeene and obſerued for a rare and ſingular commoditie, in all the foreſaid things proceeding from theſe cattell that bring foorth wooll, and not lightly to be paſſed ouer of the husbandman: namely, that there is not any one of them which is not alwaies readie, and of preſent imployment, and whereof there are not moe buyers then ſellers, ſo that the husbandman neede not doubt of any long ſtaying for the ſale thereof. For firſt of all the dung is in imployment the verie firſt hower: the wooll no ſooner ſhorne but it is greedily catcht vp: and ſo ſoone as the mutton is flead, you haue a cheapman for the fleſh, and an other for the fell. The cheeſe will either ſerue you at your table or elſe the marchant. But and if you bee not diſpoſed thus to retaile the ſeuerall commodities of this beaſt, you ſhall finde chapmen to buy them in groſſe: which is yet more, if you be not able to abide vntill they bee full growne, and in their ripeſt ſeaſon, to bee made money of; yet then may you finde to content your ſelfe and procure pence by ſelling away ſuch of the lambes as may be culled out of the whole flocke. Let it not then ſeeme ſtrange if we teach the good husbandman, that he attend and haue a ſpeciall care ouer his ſheepefold, and that in a higher meaſure then ouer any other of his cattell. Wherefore he ſhall ſet his ſheepehouſe in the higheſt part of his court, right in the face of the South ſun: to the ende it may bee the leſſe annoied with moiſture, and more open to a wholeſom aire which ſhal be of ſuch length, as that his flock may haue roome therein without treading one vpon another, ſetting it round about with mangers or ſheeperacks of a low pitch for to fodder them in. There ſhall be a floore of ſawed boordes betwixt the ſheeperoome and the roofe, to the end that they may be the warmer in the winter, and that the ſnow, which may beat in at the tile, doe not fall downe vpon their fleeces, and ſo melting with their heate, pearce downe vnto the skin and make them colde. Hee ſhall haue a ſheepeherd for to guide them, which ſhall be gentle, louing his flocke, nimble, of a loud voice, and able to whoop well, giuen to take paines, able to reckon, and by nature inclined to good, and honeſt things: for there are but few of this profeſſion now adaies (eſpecially neere to townes

The profit of ſheepe and muttons.

The ſeating of the ſheepehouſe.

and

and cities) but that by their flothfulnes and great leisure, doe giue themselues to some euill deuises, practises and malice, rather then to the good and profite of their masters; so that of them ill disposed, we daily see to insue and grow many thefts, filching and pilfring pranks, outrodes, witchcrafts, and infinite other mischiefes. On the contrarie, the first sheepheards of Egypt and other places were the bringers to light of Astrologie, Physicke, Musicke, and many other liberall sciences: and I know not whether I may father the worthie arte of warfare vpon them or no, as also policie, principalitie, and the gouernment and welding of kingdomes: for sure I am that they did intrench themselues in the field, and there liued vnder cottages, and cabines made of boughes many yeeres, obseruing at leisure the courses of the starres, the dispositions of the seasons, and by long vse and obseruation marking the goodnes and prosperousnes, as also the inconueniences and hard successes of times, in such sort, as that of the shepheards of those times came and sprung, the men of deepe knowledge and vnderstanding: the hieroglyphicks may witnes the same. To conclude therefore, there is great care to be had in the choosing of a good sheepherd.

Sheepheards the inuentors of Astrologie, &c.

Signes of good sheepe.

But I vnderstand and set downe with my selfe that a good farmer to the end he may haue a faire flocke of sheepe, doth buy them vnshorne, not hauing a graie or spotted wooll partie coloured, because of the vncertaintie of the colour. Hee shall reiect as barren, all such as haue teeth of moe then three yeres, and he shal make choise of them two yeeres, hauing great bodies, long neckes, long deepe wooll, silken, small, and bright shining: great bellies, and couered with wooll, great paps, great eies, long legs, and a long taile. Hee shall much esteeme the ramme which is tall of body and long, which hath a great belly and couered with wooll, a long taile, and a thicke fleece, a broad forehead and thicke set with haire, blacke eies, and beset with strong wooll, grosse stones, large loines, great eares and couered with wooll of one colour, not diuersly coloured in any part of his bodie, well horned, and notwithstanding but small hornes, writhen and turned backe rather then streight and open, his toong and palate white, to the end that the lambes which he shall beget may haue their fleeces all white: for if he should haue it all blacke, or else bespotted with blacke vnder the toong, howsoeuer he may be of a white wooll, notwithstanding the lambes which hee shall ingender will haue mingled and spotted coates, either with blacke or graie, and so by this meanes will become of lesse account and profite. Although the horned ramme hath this discommoditie, that finding himselfe armed by nature, he seeketh to do nothing more then to fight, and is so much the more earnest with the sheepe, vrging them mightily thereunto: notwithstanding he is much better then one without hornes, for hee knowing

The signes of a good ramme.

A horned ramme.

knowing himselfe without hornes is not so ready to fight, and is also lesse hot by nature. Now the shepherds are woont to bridle and correct the heat and furie of a ramme that is too headie and disposed to fight, by binding to his head a good strong board, stricken ful of naile points on the side toward his forehead: for such a one wil keepe them from pushing one at another, seeing they cannot turre but that they must hurt themselues: or else they bore their hornes through, neere vnto the eares, for so are some shepherds accustomed to do.

The ramme without hornes.

The rage of a ramme.

The sheepecote, as well as the swinecote, shall be paued with paning stones, and made to hang ouer the court towards the dunghill pit, where must be set some rosemarie of Beaux, in respect of the smel of the sinke, conueighing their pisse: it must be situated (as hath beene said before) vpon the south: for these cattell howsoeuer they be well couered by natures worke, are notwithstanding such as cannot indure or away with colde, and as badly can they abide the heate of sommer: and therefore they must haue made for them a long house, very low, and sufficient wide. The situation of the mangers shall be about a foote and a halfe from the floore, and there shall bee high, straight poles, and set thicke, made fast vnto the said mangers, that so the sheepe may be kept from going on the other side of their rackes. The shepherd shall keepe his rackes and hurdles for voide roomes, and making of separation betweene roome and roome verie cleane, and he shall also make them so fast, as that they may not in any case fall, and that so the rams may not go vnto the ewes, nor the lambes vnto the diseased sheep. He shal be careful to make his ewes take ram after the first two yeeres, for the space of the next fiue after insuing: for when the seuenth yeere is once past, they begin to faile and wither away: and againe, the female taking ramme before she be two yeere old, bringeth foorth a feeble and a weak brood without any strength; but and if she bring foorth before that age, you must sell her lambes: the ram that is to blesome ewes must not be vnder three, nor aboue eight: one ramme will serue to blesome fiftie ewes: the time most fit to couple and put them together, is about the winter solstice, which is in the moneth of Nouember, to the ende that the ewe which goeth with lambe fiue monethes may lambe in the spring, in which time she shall find the grasse beginning to spring, & so shall returne home with her vdder well filled, to suffice for the feeding of her yoong, which wil be growne to good perfection by Easter, at which time the butchers will be readie to buie them. Furthermore, for some daies before that the ramme and the ewe be coupled together, you must giue them to drinke salt water, so the ewe will hold better, and the ramme will be the more lustie: but after that the ewe is with lambe, you must not let her drinke any such water, because it woulde cause her to lambe before her time. If the farmer desire to haue many weather lambes,

The office of a shepheard.

To haue many lambes.

it

it will be good according to the counsell of *Aristotle*, to obserue and spie out a dry time when the northerne winde bloweth: and then to cause the flocke to feede drawing directly vpon the same winde, and in that very time, and after that sort to make the ewes take ramme: But and if he woulde haue many ewe lambes, he must draw them to feede vpon a southerne winde, and so let the rams couer them.

The lambing of ewes.

When the ewe is in lambing, care shalll bee had to helpe her if neede require, drawing the whole lambe out of her bodie, if it lie ouerthwart and can not come foorth. For this poore beast is pained in lambing as women bee in bearing of their children: and oftentimes (being voide of reason) shee trauaileth with much greater paines. The lambe being come forth, it must be lifted vp and holden right, and afterward put to the teates of the ewe, thereby to vse it to suck the dam, and yet not so forthwith, but that there be some of her formost milke drawne out first, which otherwise might hurt the lambe. Afterward it shall be shut vp with the dam for the two first daies, after that it is lambed, to the end she may keepe it the warmer, and it may the better learne to knowe her. In the meane time care must be had to feede the ewe with the best hay that may be found, and with a little bran and salt amongst, to keepe her in a house very fast and sure, and not to suffer her to goe forth of three or fower daies: to carrie her water to drinke a little warme, and wherein is mixed a little of the flower of miller and of salt: to drawe from her her first milke, because it is not good. And so soone as her lambe shall begin to know her, she may be let loose to goe feede in the fields, and to keepe the lambe fast in a warme and darke house, vntill such time as it begin to play the wanton; out of which house it shall be let loose morning and euening to sucke the dam at her comming home and going to the fieldes. And after that it shall be growne a little stronger, you shall giue it within house some bran or very small hay, and that the best that is to be gotten, to keepe it occupied with al the time that the dam is in field.

The ordering of young lambes.

What lambes are to be kept for the furnishing of the flock.

The wise shepherd will not keepe for to store his flock, any other lambes then such as are the grosseſt, most corpulent and strong, and which will well be able to hold out winter, and as for the rest he will learne them the way to the towne to seeke a new master: he will be alwaies sure to keepe a good round number to vphold and renew the losses that may fall by death or by sicknes.

To geld lambes.

The wise shepherd will not geld his lambes, till they be betwixt fiue and sixe monethes olde, and for to geld them he shall vse the meanes set downe in the gelding of calues. In winter he shall fodder them with the best sheaues of corne in the barne, and he shall rake together the scatterings which they make from time to time, which after will serue for litter for the kine and horse.

For

For want of corne sheaues he may fodder them with the greene boughes or leaues of elmes, or else of the ashe tree, gathered in their season, or with autumne hay or the after crop. The tree called Cytisus is good for them, if it may be found in this cold countrie, and being a thing so much desired and sought after of the goates, as they who by the vse thereof are made fruitfull in milke, so likewise is the fetch: notwithstanding the straw of pulse will be necessarie for them when they cannot haue any other thing, but that all other manner of fodder is gone and not to be come by. *Fodder for sheepe.*

As concerning the time when they are to be led foorth to feeding, in winter, autumne and spring time, you shall keepe them close in the morning, and you shall not carrie them to the fieldes, vntill the day haue taken the frost away from off the ground: for at these times the frosen grasse doth beget in them a rheume and heauines of the head, and looseneth their bellies. In sommer he shall carrie his flocke to the fresh pasture by the point of day, when as the tender grasse is couered with the deaw: and toward noone he shall looke out either vaultes and hollow places of the earth, or else the couert and shadow of some thicket, to keepe his cattell from the heat of the sunne: or else some old oke stretching forth his boughes, or the forrests and place of tall timber trees which giue a shadow. And in as much as this beast is very tender aboue the head, and is greatly offended by the sunne, he shall be carefull in sommer during the great heate, to obserue when the canicular daies begin, that so before noone-tide he may draw his flock to feede vpon the west, and after noone vpon the east. For this is a thing of great moment, that the head of the sheepe which are feeding, be turned contrarie to the sunne, which oftentimes hurteth that kind of cattell, at such time as the canicular daies come in. *What time sheepe should be caried to pasture.*

In cold and moist weather as in winter and spring time, he shall water them onely once a day: but in sommer twise, that is to say fower howers after sunne rise, and at night, after the heate is rebated and well ouer past. *To water sheepe.*

The shepherd shall order and gouerne them with great gentlenes, as it is most requisite for all herds of whatsoeuer cattell that it be, who must rather be and shew themselues leaders and guides of their beastes, then lords. Guiding them to the field, he must alwaies goe before them, to hinder and keepe them backe from running into fieldes where they might feede vpon euill and hurtfull grasse: and especially such groundes as wherein the water vseth to stande, or where the ground hath beene ouer washt with some flood and breaking forth of some riuer, because that by pasturing in such places, they could not choose but in lesse then fortie daies be tainted and die, except they were releeued and succoured by some good meanes. He shall rather keepe a white dog then one of any other colour to follow his sheepe, *A gentle shepheard.*

and

and he himselfe also must be appareled in white : because that sheepe are naturally so inclined to feare, as that and if they see but a beast of any other colour, they doubt presently that it is the woolfe which commeth to deuoure them: this dog must haue a collar of iron about his necke, beset with good sharpe pointes of nailes, to the end that he may the more cheerefully fight with the woolfe perceiuing himselfe thereby to haue the aduantage, as also that the woolfe may not take occasion to hang him in his owne collar : if it happen that his sheepe be scattered, to call them in and bring them together againe, whether it be for keeping them out of harme, or to cause them to knowe his call, he must whoop and whistle after them, threatning them with his sheepe-crooke, or else setting his dog after them, which he shall haue trained to doe them that seruice, but he may not cast any thing at them : neither may he goe far from them, neither yet take himselfe leaue to lie or sit downe : he must accustome them to two sortes of cries, the one pleasant and shrill to make them goe forward : but to call them backe, to another and diuers crie, to the end that the sheepe hearing these two different cries, may learne and applie themselues to doe that, which is thereby commanded them. If he walke not, yet he must stand, to the ende he may bee as a vigilant watch vnto his cattel, and he must not suffer the slower or those which are with lambe to straggle from the rest or come far behinde them, by hanging back, when the light footed, and such as haue already lambed doe run before, least by that meanes some theefe or deuouring beast deceiue them and come vpon them busie at their meate. He must sometime make them merrie, cheering them vp with songs, or else by his whistle and pipe : for the sheepe at the hearing thereof will feede the more hungerly, they will not straggle so far abroad, but they will loue him the better.

He shall not draw them into any grounds but such as are tilled, and turned, or to the grassie tops of hils, to the high woods, or else such medow grounds, as are not moist and wet : but neuer into marish grounds, nor into forrests or other places whereas there are thornes, burres and thistles : for such doth nothing but make them itchie and scruuie, and to lose their wooll. Also it is not so good fodder, nor so good feeding, which for long time hath beene in continuall vse, for so the cattell will grow wearie of it, and offended therewith, except the prudent shepherd vse some remedie against it, by mingling some salt amongst it, or sprinkle it with brine or dregges of oile, vpon some floore, and so with their meate he should giue them both sauce and appetite.

The shepherds life in sommer.

In the high time of sommer, the shepherd shall come with his flocke to their lodging, and shall fold them amongst the fallowes, and there make his folds with hurdles after the manner of the sheepe

cote,

cote, the couering excepted. And at the fower corners of his folde he shall tie his dogge for a sentinell and standing watch, lodging himselfe in the saide folde, within his cabin of woode which he shall driue vpon wheeles to and fro, as he shall haue occasion to change his fielde and folde. Hee shall clense his sheepecote but once a yeere, and that shall be presently after August, or else in July, being the time when his herd is folded, but neuer in Autumne, nor in winter, for then their dung will serue to keepe them warme. And then foorthwith the farmer shal cause the same dung to be carried vnto the leanest parts of his lande, and shall leaue it there on hillockes to drie in the heate of the Summer, vntill October, and then to cause it to be spred vppon the ground, or else to mingle it with marle to dung and manure the earth: howbeit marle must not be reiterated so oft as dung, for which cause he must vse such discretion, as that he must not lay any marle but from fiue yeeres to fiue yeeres in any place. It will be good after that the sheepecote is made cleane to perfume it with womens haire or harts horne, or the hornes of goates clawes, thereby to driue away adders and snakes, and other beastes which oftentimes annoy this kinde of cattell.

The clensing of his sheepecoate.

He shal procure his sheepe to be shorne the first hot season falling out in the spring, if it be in a hot and southerly countrie: but in the countrie that is cold and not so warme, about the end of Iuly, but neuer in sommer or in winter, and but from eight a clocke in the morning vntill noone, and that in faire weather, without winde, and the moone growing old. Afterward you shall strake the shorne sheepe all ouer their skins with your drie hande, moistned in oile and wine mingled togither, to comfort them withall; and if there be any snips in their skins, you shall applie vnto them melted waxe or tarre with sweete seame, for this doth heale them and keepe them from the scab, and causeth also a finer and longer wooll to growe vp and come in place. To keepe your sheepe in good plight, you shall giue them bay berries drie with salt, beginning presently after they haue lambed, and continuing vntill they goe againe to ramme: by this meanes they will be fat, sound, and full of milke: after they be once with lambe, you must giue ouer that course, least you cause them to cast their lambes: they must not at any time drinke soone after this meat.

Shearing-time.

Sheepe are subiect to the scab, cough and bloud, which is an extreame paine of the head, and to the murraine. The three last diseases are incurable, and also infecting: for one of them hauing any one of these diseases, killeth the other of the same. And at such times you must change their aire and cote, and withall looke to them there, and refresh them with strawe, giuing them that which is long and small, and perfuming their cote with tyme, rosemarie, iuniper, pennyroyall, margerome, balme, costmarie, basill, and other sweete herbes many daies

The diseases of sheepe.

daies together: and presently you must giue vnto the other salt with a quarter of a pound of brimstone mingled togither, which will purge them and heale them of the infection. These diseases happen them through eating of euill herbes, or drinking of standing water: or for that the place where they feede, hath beene ouerwashed with some floud or great streames of water, in which case they neuer faile to fall sicke in lesse then fortie daies: wherefore to meete with such inconueniences, the good shepherd must goe euery day before his flocke, and keepe them from going into the fieldes, where he knoweth that there is any occasion for them to incurre any such inconuenience.

The scabs of sheepe. For the scab in sheepe, you must make an ointment of the powder of brimstone, of the roote of cypres as much of the one as of the other, mixe them with Rhasis his white ointment, camphire, and waxe to make an ointment of: after you haue for three euenings rubbed the said sheepe, you must wash them with lee, with sea water or brine, and lastly with common water: the very same remedie serueth for the rotten sheepe.

Scabs in sheepe.

The rotten sheepe. For the cough if it continue, you must make them drinke in the morning with a horne the oile of sweete almonds, and a little white wine being warmed together, and giue them fresh straw, and cause them to feede vpon solefoote: for it is commonly in the spring time that they are troubled with this disease: but and if it should happen at any other time, there may a little fenugreeke be giuen them beaten with cumin, and of the powder for horses. The herbe called knotgrasse is very bad for sheepe, for & if they eate any of it, all their belly is swolne and blowne vp, frothing out a thinne and verie stinking humour. You must presently let such bloud vnder the taile, in that place which is neere vnto the buttocks: in like manner it will bee no lesse good to let them bloud vpon the veine which is in the neather and vpper lippe.

Shortnes of breath. For a short breath, you must slit their nostrils as is vsually to be done vnto horses: or else cut their eares one after another.

The sheepes ague. Vnto the sheepe which haue the ague, it is good to be let bloud in the heele, or betwixt the two clawes of his feete, or vpon his eares, afterward keeping him from drinking, were it neuer so little. The most soueraigne remedie to cure them of the ague, as also of manie other diseases, is to cause to be boiled in water and wine a rams stomacke, and giue it them to drinke with broth.

The snyuel, or snot. The sniuell of sheepe, as that also of horses, doth keepe it selfe so close within the lungs, as that neither by bloud letting, nor by drinkes it can be expelled. The best remedie is to strangle the beast if the disease continue but two daies: for the other as well males as females doe greatly desire and delight in that which these driuelers doe leaue vpon the edges of the rackes, and licke it away, thereby themselues

shortly

ſhortly after falling into the ſame diſeaſe. Certaine marrers of mules rather than keepers of mules, ſay that there muſt be hung about their necke a toade of the vine whiles ſhe is liuing, made vp in a bagge of new cloth, and ſo leaue her there for the ſpace of nine daies: others that he muſt be put to graſſe if it be a horſe: and one ſheepe by it ſelfe in a ſeuerall paſture: other ſay that garlicke and freſh ſage muſt be ſtamped together, and a drinke made thereof with ſtrong vineger, whether it be for horſe or ſheepe or any other beaſt: others giue them to drinke a ſpoonefull of aqua vitæ with mithridate. There will no other ſucceſſe come thereof, but the corrupting of the lungs, and the cough which ſuch haue as are rotten. And as for help for this diſeaſe, there is not any other, but euen the auoiding of them out of the way.

Cornes, troubling ſheepe.

The cornes which vſe to vexe and torment ſheepe, are healed with allume, brimſtone and vineger mingled together, or with a pomegranate whiles it is yoong and tender and no kernels growen in it, being ſtamped with allume and a very little vineger: or with gals burnt, and the ſame ſhaued and put in groſſe, or red wine, and ſo laide vpon the cornes.

Saint Anthonies fire, in ſheepe.

Saint Anthonies fire, which the ſhepheards call the flying fire, is hard to cure, becauſe that neither ſalue nor burning, nor yet any other medicine can helpe the ſame. There is nothing elſe to be done vnto them but to foment them with the milke of goates, and it is good to ſhed and remooue out of the flocke the firſt ſheepe that ſhall be taken with this diſeaſe.

For the bloud in ſheepe.

The bloud is a turning about called the ſturdie, and it taketh them in the times of the greateſt heat; ſo as that thereupon they turn about, ſtumble, and leape without anie cauſe, and if you touch their head or feet you ſhall find them in a very great heat. For this you muſt ſpeedily take a ſharpe horne and make inciſion in the veine which is aboue the noſtrils, and that iuſt in the middeſt thereof, and as high as poſſibly you can: heereupon the beaſt will preſently faint, but come vnto himſelfe againe within a ſhort time after, & that ſometime to his good, but ſometimes (and that doth oftner fall out) vnto his euill. Some ſhepherds haue tried the letting of them bloud in ſome ſmall quantity in the temples, and haue found it to eaſe them ſometimes; as otherwiſe, for ſuch as haue had the cough or cold, they haue giuen a ſpoonefull of aqua vitæ with mithridate.

For the murraine or plague amongſt ſheepe.

For the plague there is the like remedies for beaſtes, as there is for men: and I thinke, that this ſort of cattell is the more ſubiect vnto it than any other, as is alſo the ſwine in reſpect of the filthineſſe thereof and ſtinking of the dung. But for the better preuenting thereof, it hath beene deuiſed and thought good oftentimes to perfume their cratches with ſuch ſweete herbes as haue beene ſpoken of before, as

penniroyall

penniroyall, wilde balme, rue and iuniper berries, and oftentimes to make them eate amongst their meate, common melilot in steede of free and mountaine melilot, commonly called Cytisus, and of wilde penniroyall: moreouer organie, as also wilde balme is good as well for this disease as for the cough.

Lamenes in sheepe. If the sheepe become lame through tendernesse of his clawes too much softened, by hauing stood ouer long vpon his owne dung, and that in such sort as that he cannot goe, you must cut off the tip of his so decaied claw or clawes, and put thereupon quicke lime, tying it on with some linnen cloth, and this to be continued onely for the space of a day: and then vpon the day following to applie vnto it some verdigrease, & thus to vse these two things in the like courses, so long as vntill the hoofe be whole and sound.

Horse-leaches swallowed. If the sheepe haue swallowed a horseleach, you must put downe into his throte strong vineger which is warme, or else oile.

An impostume. If the sheepe haue any impostume in the vpper part of her flesh, then it must be opened, and salt pownd small and burned, and mixed with melted pitch, must be put into the wound.

Ewes with lambe. When the ewe is with lambe, if she haue a blacke toong, it is a signe that she will haue a blacke lambe, & contrariwise; and so a lambe partie coloured, if her toong haue spots of diuers colours.

The woolfe. The woolfe will doe no hurt vnto the sheepe, if you tie wilde garlicke vnte the necke of him that goeth formost.

The diseases of lambes. It is good also to succour lambes if they neede, as whether they haue an ague, or some other disease: if they be sicke they must be taken from their dams, but giue them notwithstanding their milke to drinke, mixt with as much raine water, if they haue an ague. Oftentimes they haue the scab and itch vpon their chin after they haue eaten grasse couered ouer with deaw. The remedie is to take hyssope and as much bruised salt together, and therewith to rub the pallate of the mouth, the toong, and all the muzzle, and afterward to wash the vlcers with vineger, & so to annoint them with tarre & swines grease.

The itch of the chin.

Sheepes-feete. Beware of eating any sheepes feete, whereout you haue not taken a worm that lieth betwixt their clawes, for this worme swallowed downe doth prouoke vomit, loathing and great paine of the stomack.

The cunning of lambes. As for the rest, the runnet of a lamb drunken is good against al sorts of poysons. The bowels or lungs of a weather newely killed, applied vnto the head, is soueraigne against frensies, & for such as are deadly greeued with headach. The lungs of a sheep dried and made into powder, doth heale the kibes of the heeles. The fell of a sheepe newly kild, applied to the broken, beaten or blew partes of the body so made by rods of twigs, by treading vpon or such like, is a speedie and singular remedie for the same, prouided that they haue not beene caused by the biting of a woolfe. The wooll of a sheepe doth appease the aches

The bowels of a weather.

His lunges.

His skinne.

The wooll of a weather.

and

and ſwellings of ſuch places as it is applied vnto, ſo that they haue not beene cauſed of the touch of any woolues tooth, for ſo in ſteede of taking away the paine, it would aggrauate and increaſe it. And which is more, as *Plutarch* maketh mention in his ſmall works, the wooll of a weather or ewe touched with the teeth of a woolfe, doth make it apt to ingender rottennes, but contrariwiſe in the fleſh, as making it more tender and delicate by the biting of it, for as much as the breath of the woolfe is ſo hot and burning, as that it melteth and digeſteth the very bones in his ſtomacke. Candles made of the ſewet of a weather or ramme of it ſelfe and without any thing mixt with it, put in a cheſt among clothes or linnen, doth keepe them from the miſe. The dung of ewes with vineger doth cure all hanging warts, all hard ſwellings, whether they be called cats-haires or cornes.

The biting of the woolfe.

Candles of weather ſewet.

The ſixe and twentith Chapter.

Of the goateherd.

SVndry countries in Europe, and particularly ſome places of Fraunce are to be found, where they haue not the commoditie and benefite of any greater cattell then the goate, and of this they can make milke meates, much better, and more wholſome than that of the ſheepe, as other things alſo accompanying the ſame, the wooll and skin onely excepted, of which notwithſtanding they make chamlet in Turkie, and as for their yong ones, they are ſold in their ſeaſon, and make as good meate as any that can be found. And this time is when as birdes doe couple and match together, and other beaſtes goe to rut, for the yong ones of this kinde being indeede very yong, are apt to be compared with the lambes of the ſame age. Witnes to the cookes and vittailers, which craftily ſet the taile of a kid vpon the quarter of a lambe, which is found to haue but a skinnie and vnſauourie fleſh, without any daintineſſe or taſte at all ſaue of the milke.

Chamlet made of goates haire.

Young kiddes well eſteemed.

The coſening tricke of cookes.

The goate is fed as it were with nothing: he brouſeth and feedeth of all manner of graſſe, of pricking things be they neuer ſo ſharpe: vpon the hedges, buſhes, brambles, yea vpon venemous things, he loueth to brouſe the wood of fruit trees: he delighteth to licke the moiſt wals and rockes taſting of ſaltpeter, in ſuch ſort as that you ſhall neuer ſee a goate die of hunger: he feedeth for the moſt part of a more ſolide meate then the weather, and climeth into higher places, and where the ſunne hath greater power: he is of greater ſtirring and more giuen to exerciſe, and therewithall of a more ſtrong and luſtie bodie. Theſe haue beene the cauſes why men in times paſt haue eſteemed them, as they doe alſo yet in high hillie countries: and we for the few that we haue doe prouide herdes and houſes for them

The goates vſuall meat and fodder.

Goats are of great requeſt in hillie countries.

amongst the sheepe, and we separate the male goates in such sort as wee doe the rams. Their house must be paued with stone either by workemen or naturally: for these cattell are not allowed any litter, and that because they like it better to lie vpon the bare and harde grounde, then to lie vpon litter: yea and oftentimes they will lie asleepe vpon the very points of rockes, or vpon the steepe corners of high hils toward the heate of the sunne, rather then vnder any shadowe, or else vpon the fresh and soft grasse, but they be of variable complexions: and therefore it is no shame for a man to call another, goatie, if he be found mutable and full of changes in his manners and cariage. And for as much as we are far off from *Languedoc*, *Auuergne*, and the hillie places of *Sauoy*, in which this kinde of prouision being a speciall commoditie of those countries, is had in great estimation, we will make a shorter description and discourse both of the maner of ordring them, then we doe in the like case of such as beare wooll, as also for that these two sorts of cattell are placed together vnder one roofe and at one cratch, feeding vpon the like fodder, and are as it were handled after the same manner, and kept in the same flocke.

The office of the goatherd.

The painefull goatherd shall make cleane their house euerie day, and shall not suffer any dung or moisture therein, or that with trampling they make any durt, for all these are verie contrarie vnto goats. He himselfe must be of the nature of goats, that is to say, nimble, couragious, rough, hard, diligent, patient, cheereful and bold, and aduenturing to goe amongst the rockes, through deserts and bushes, not that he should follow his flocke into euerie place as other herdes doe their cattell, but that he be euery day before them. Hee must not be charged with moe then fiftie, because this cattell is foolish and dissolute, easie to stray abroad hither and thither contrarie vnto sheepe which keepe together, and trouble not their herd with gathering of them togither. He shall beware and not suffer them to feede in colde places, for cold is more hurtfull vnto them than any other thing. He shall draw them foorth to the fieldes by breake of day so long as the dew falleth; that so hauing filled themselues of the grasse thus bedewed, they may returne home about nine of the clocke their vdders full of milke: and then againe about three they are to be sent to the fieldes, that they may feed and continue there vntill the euening. In winter time he may lead them to fields, from nine a clocke vntill night without any hurt done vnto them, either by the open aire or colde be it neuer so sharpe, they are of so strong a nature. It is true that if the weather be tedious or rainie, or fulll of snow, as in winter, he shall keep them in their cote, and giue them to eate the tender sproughts and stalkes of herbes gathered in September and dried in the sunne, and afterward kept in the hay loft or some such other place out of the raine. He shall vse the meanes to cause them to ingender in autumne

The goats bucking time.

before

before the moneth of December, as he doth the ſheepe, to the ende that in the ſpring when the trees budde, and the woods begin to put foorth new leaues, they may bring forth their yoong ones. When he would haue his goats to haue good ſtore of milk, he ſhal giue them to eare inough fiueleafed graſſe, or ſhall tye about their bellies the herbe ditranie, or elſe carrie them to feede in ſome place where there groweth great ſtore of it. *To make the goates to haue much milke.*

The goodnes of a goat muſt be eſteemed and gathered by theſe ſignes. If ſhe be one yeere old, and not paſt fiue; if ſhe haue a great bodie, firme and ſwift, thicke haire, great and groſſe teats, large beneath the taile, and about her thighes, rather of a reddiſh or blacke colour then of a white: for although that ſome ſay, that the white do yeelde more milke, yet the reddiſh coloured and blacke are more pleſant, frolicke, and merily diſpoſed: without hornes, rather then horned; for thoſe which haue no hornes doe not caſt their yoong ſo ſoone, and they do keepe more conueniently amongſt ſheepe, then thoſe which haue hornes. *The markes of a good goate.*

The malegoat is much to be eſteemed if he be not aboue fiue yeere old (for in reſpect of his heat which is exceeding great, he doth eaſily grow old) which hath a great bodie, groſſe legs, a thicke and ſhort necke, hanging and great eares, a ſmall heade, blacke haire, thick, neat and long, without hornes: for ſuch as haue hornes by reaſon of their puſhing and eagernes are dangerous, which hath likewiſe vnder his chaps two bearded knobs or kernels. *The male goate*

The profit that the farmer may make of his goats, is their dung, whether it be by folding them vpon their fallowes in the ſummer time, or that it be ſuch as is made and gathered in their coats: the kids, the fleſh whereof is held ſo dainty: the goat skin, whereof gloues are made; as alſo counterfait ſhamois, drie leather or ſpaniſh leather, and all the bags wherein oiles are woont to be carried in to and fro: the skin of the male-goat, whereof are made the beſt dry and Spaniſh leather, ſo much in requeſt for pumpes and pantofles: the ſewet of the male bucke, whereof the phyſitions doe make ſuch vſe, and finde ſo ſingular in the curing of bloodie fluxes: the skins of kids whereof are made handſome, daintie, and ſoft gloues, good girdles, purſes, and needle-caſes: and cheeſe which ſhall be made after the faſhion of cowmilke cheeſe. It is moſt true that ſome do make them after the faſhion of little thinne angelots, and thoſe are the excellent cheeſes, which haue beene woont to be made at *Niſmes* heretofore as *Plinie* recordeth, howſoeuer now at this preſent, *Baus* doth carrie away the name. *The profit of goates*

And now ſomewhat as concerning the bags made of goates skins for to carrie oyle in, as we haue daily experience out of the countries of *Prouence* and *Languedoc*: you muſt firſt cut from the dead goat the *Bags made of goats skins.*

head onely close by the necke, and the feet at the second ioint of the legges: afterward fleying the rest of the legges vnto the priuie parts of the beast, to turne the rest ouer all the body, and keeping the hairie side outward to salt it three or fowre times, and to rub ouer all the skin euery where with salt very well: afterward to sew it and make it into a bag for oile, as it may best serue: you must notwithstanding keepe it alwaies full, blowne vp and tied somewhere vp on high, that it may not touch the earth, for otherwise it would be gnawed in pieces of vermine. She shall not make account to make butter of their milke in any great quantitie, for the milke of goates hath no such store of fat or oily substance in it, seeing there is alwaies much adoe to get foorth euen some small portion, and yet which is more when it is out it looketh whitish, hard and tasteth like tallow: and thirdly, because in *Languedoc* and *Prouence*, they gather not any butter at all being giuen to make cheese, namely those cheeses which are called small cheeses.

Butter of goates milke.

The goate is neuer without an ague.

As concerning the diseases of a goat, she is neuer without an ague in this countrie, and that in such sort as that if they be free from it but a little, they die: besides the diseases of sheepe, whereunto goates are subiect, there are three other, whereunto the goat is subiect, that is to say, the dropsie, swelling after she hath brought foorth her yong, and the drie disease. The dropsie hapneth vnto her by drinking too much water, and then you must make incision vnder the shoulder, and draw foorth all the gathered superfluous moisture, and after heale the wound with tarre. After she hath brought foorth her yoong if her matrix be swolne, or if she be not well purged of her afterbirth, you must cause her to drinke a great glasse full of verie good wine. The drie disease commeth vpon her in the time of hot seasons, as wherein her teates are so dried vp, as that they are like vnto wood for drines, and in such case you must rub her teats with creame: and as for other her diseases you must cure them with those remedies which are set downe for the diseases of ewes.

The diseases of goates.

The matrix swolne.

The drie disease.

The flesh of goates.

The good huswife that setteth by the health of her folke, shall not giue any goates flesh vnto her people to eat, except it be in time of great dearth and scarsitie, because the vse of this flesh doth breed the falling sickenes. Likewise our predecessours had the flesh in such detestation, as that they would not touch it, no not name it: notwithstanding if necessity do force vs to feede vpon it, as many poore pesants dwelling in villages do (hauing good store of goates, and which onely are the store of their powdring tubs, as also being perswaded thereto through couetousnes) then they must boile them in a pot not couered, and in great quantitie of water, with good store of spices and cloues, and yet after all this not to eate it before it be colde, she may gather some profitable thing both of the male and female goat for the health of her family. For the milke of the female is verie singular for

Goates milke.

the

the hardneſſe of the ſpleene, if ſo be that ſhe haue beene fed any ſpace of time with Iuie. The reddiſh and bloudlike liquor or iuice which diſtilleth from her liuer when it is roaſted, is good for the weake eies. *Goates bloud.* The bloud of the male or female goat fried, ſtaieth the fluxe of the belly. *The bloud of the male goate.* The bloud of the male hardened and dried vp in lumpes, is ſingular againſt the ſtone. *The goates horne.* The powder of the goates horne burned, cleanſeth and maketh white the teeth: drunke with roſe or plaintaine water it ſtaieth the bloudy fluxe. The fume or ſmoake comming of the burning of goates horne doth driue away ſerpents in what place ſoeuer that they be. The dung of goates applied in forme of a cataplaſme doth reſolue ſwellings vnder the eares, in the flanckes, the ſciatica and other apoſtemes, eſpeciallie if it be mixed with the flowre of barley and water and vineger, or with freſh butter or the dregs of the oile of nuts; which is more, if you giue but fiue trottles of goates dung with a ſmall draught of white wine, the ſpace of eight daies euerie morning, it doth heale the iaundiſe. *Goates dung.*

The ſeuen and twentith Chapter.

Of the dogs kenell.

VNto the ſhepherd, ſeruing alſo in ſteede of the goateherd, doth belong the charge of the doghouſe, in the ordering of this our countrie gouernment, as well becauſe neceſſitie commandeth that he ſhould haue bloodhounds to fight and chaſe away the wolues; hounds and water ſpaniels for the purpoſe of ſuch things as now and then he may meete withall in the fields, or which eſcapeth at vnawares out of the riuers or ſtanding waters: as alſo maſtiues, which are giuen him in charge by the farmer, as being for the guarde and keeping of his houſe, and of theſe there ſhall be one or two which ſhall bee kept faſt all the day, chained to ſome poſt reared in the court on the left hand as you goe in, for to giue aduertiſment of the comming in or going out of ſtrangers, and to make ſuch afraid as might come to doe miſchiefe: but on the night ſuch dogs ſhall bee let looſe, and put amongſt the reſt which come from the field, to bolden them in their charge, as in ranging and keeping the court, as well to defend it from theeues, as to free it from the rauen of wilde beaſtes, which giue themſelues wholly to the purchaſe in the night time. This then is his charge to feed them, to make them cleane, to bruſh them and wipe off the duſt from them, to correct them, reclaime them, teach and fit them for that which it is needfull that they ſhould doe, and to this end the farmer muſt not withhold from him the great of the ſiftings, which may be prepared for them at euery baking, beſides what may come vnto them for their fees vpon euery purchaſe either of tame or wilde things. He ſhall likewiſe haue care to ſee to the collars that are requiſite about the ſaid dogs, he ſhall ſee them waſhed in the heate of the

To meete with the madneſſe of dogges.

weather for feare they ſhould goe mad: as alſo that they lie vpon freſh and ſoft ſtraw after that they haue trauelled: they muſt alſo be ſparingly fed, thereby to make them the more fierce vpon the pray and the readier to courſe, and he ſhall watch with his crosbow or piſtoll, to meet with ſome wild fleſh, if any come in thoſe quarters, which his buſineſſe doth draw him vnto.

Three ſorts of dogges needfull about a country farme.

I meane therefore that the husbandman ſhould haue care to prouide three ſorts of dogs in his houſe. The one called the watch dog, to diſcouer the ſecret and couert conueiances of things ſtolne by men: the ſecond called the ſhepherds dog, to reſiſt the iniuries and outrages offered by men or wild beaſts, and to driue them away: the third called hounds or hunting dogs, and theſe do not bring any profit vnto the husbandman, but rather hinder his worke, and keep him from his buſineſſe. But I will onelie ſpeake of thoſe which are for the keeping of the houſe and cattell, and reſerue the hunting dogs for to intreate of in our ſeuenth booke, where I intend to ſpeake a word or two of hunting.

The qualities of a watch-dog.

The dog appointed for the keeping of the farme, muſt be of groſſe and great corpulencie, hauing his body well and ſquare compact, and rather ſhort than long. Let his head be ſo great and thicke, as that it may ſhew to be the greateſt part of his body, his countenance ſomewhat reſembling a mans, his throate great and wide, thicke and great lips hollowed after the maner of valleies, his necke thicke and ſhort, his eares great and hanging, his eies blacke or azure, fierie and ſparkling, his breaſt broad and full of haire, his ſhoulders wide, his legges thicke and full of haire, his taile ſhort and thicke, which is a marke of ſtrength, for the long and ſmall taile is onely a ſigne of ſwiftneſſe, his foot and nailes great, his barke baſe, lowde and tearefull, he muſt be reaſonably fierce, for the gentle dogs do fawne vpon theeues, and the ouer fierce would not let to leap in the boſome of your familiar friends and ſeruants, eſpecially let him be watchfull and keeping good gard, not a rouer, running hither and thither, but ſoon ſatisfied and ſtaied rather than actiue and buſily gadding, he muſt alſo be blacke, to the end he may be more terrible vnto the thiefe by day, and not ſo well perceiued of him by night.

The quality of the ſhepheards dog.

The ſhepheards dog needes not nor muſt not be ſo great and heauie as that of the farme, and yet notwithſtanding he muſt be ſtrong and luſtie, and ſomewhat ready and light. For he is vſed both for fighting and running, intended that he muſt watch and hunt awaie the woolues, and if they ſhould cary any thing away then to purſue them, and take it from them: wherefore in this reſpect it were better that he ſhould be long made rather than ſhort and ſquare, ſeeing euerie beaſt of a long bodie is more fit for the race, than that which hath a ſhort and ſquare body. He muſt be of a white colour, that ſo the ſhepherd

herd may more easily discerne him from amongst the woolues, and know him as well in the twylight, as also in the very darkest time of the same. If he be in the rest of his limmes like vnto the house dog, he cannot choose but be a good one. Both these sorts of dogs are fed with like meate, as with wheaten bread, the flower of barlie with whay, warme broth and sodden beanes. The shepherd which hath this charge, shall not let either dog or bitch ingender before they be a yeere old, and not after that they be ten yeeres olde. He shall take from the bitch her first litter, for being yoong and newly acquainted with such matters, she woulde not feede and nourish them well, and againe such her feeding of them would hinder her in her growth euerie manner of way: as also the dog of the first litter is of a feeble and weake condition, and for the most part subiect to run mad. Sixe moneths after that the bitch hath whelped, he shall not suffer the whelpes to go forth, vntill such time as they become strong, except it be onely to play and sport themselues with their dam, for feare that in attempting to leape hedge or ditch, they doe not burst and beate out their guts. He shall not let them sucke any other milke but that of their owne bitch, and if it happen that she want and haue not inough, they shall haue goates milke giuen them vntill they be fower monethes old: he shall not call them by very long name, that so assoone as they be called they may knowe that they are called. And againe it is not good that their name shuld be of lesse then two syllables. When these whelps are fortie daies old, he shall breake the tip of their taile, & shall draw out a sinew that runneth along the ioints of the backe, euen vnto the end of the taile, this will keepe them from growing too much in length, and will also be a meanes to keepe them from running mad. He shall make his dogs come after him, and the meanes to doe it (as some say) is to giue them now and then some boiled frogs to eate; or to make it more sure to giue them brused salt, or else to cast them a peece of bread, which he hath kept a good while vnder his armepits, in such sort as that it be a little moistned with the sweate of them, or else to let them smell the afterbirth of another bitch which he shall haue wrapped vp in a cloth. Likewise hee shall learne some peece of cunning to make that he may not be barked at, nor set vpon by other dogs how raging soeuer they be. And to effect this he shall hold in his hand, the eie of a blacke dog pulled from him aliue, or for the more certainty, the eie or the hart of a woolfe, or the tongue of a she woolfe. He shall incense them to fight the one with the other, by clapping his hands, and yet he shall beware that neither of them be ouercome, for making of him timerous and dastardlie. He shall not in any case suffer them to eate the flesh of dead sheepe, least thereby they fall to set vpon and snatch vp such as are aliue: for very hardly and with much adoe will they be made to forsake this fault, if once they haue begun to

The meat fit for dogs.

The time for dogs and bitches to engender.

The ordering of whelpes.

The names of dogges.

A sinew in the tailes of dogges.

To make himselfe followed of dogges.

The way to keepe dogs from running at you.

To make dogs fight.

Dogs may not eate sheepes flesh.

to eate rawe flesh. He shall frame them in their youth to bring, and the better to teach them so to doe, he shall first cast a pretie way from him a peece of bread. He shall bee carefull to heale them when they be sicke. They are subiect especially vnto three diseases, madnesse, the squinancie, and the paine of the thighes. Madnesse taketh them in the time of extreme sommer heat, and in the excessiue cold of winter: and for the better keeping of them from this disease, it will be good that during the time of excessiue heate and colde, they haue often giuen them cold water to coole them withall, and to temper the heate of their blood: or for the more certainetie whiles they be yet yong, you may pluck frō them at their tailes end, a sinew, which goeth along through the ioints of the backe bone. Or els to take from vnder their toong a little sinew which is like vnto a small broad and rounde worme. To cure them of this disease: so soone as the matter is perceiued, he shall cause him to drinke the iuice of beets with the pith of elder tree: or else burne him in the brow with an hot iron: or else to souse him euery day for the space of fifteene or twentie daies together in sea water, three or fower times a day: or else in warme water made salt: for salted or sea water hath a singular vertue against the madnes of a dogge: And these are the signes of a madde dogge: He is more dry and leane then ordinarily he was woont to be, he eateth nothing, neither drinketh, although he seeme to be much altered and starued with want of them, he hateth water more then any thing else, at the sight whereof he falleth into trembling and staring of his haire al ouer his body, his eies are red and firie, his looke is aside, sterne, and fixed vpō him whom he beholdeth: he doth nothing but run hither and thither without reason, his head and eares cast downe, his mouth very much gaping, hanging out a great blacke and wanne toong, foming and drueling at his mouth, and sniuell at his nose, his taile hanging betwixt his legs, barking with a hoarse voice, and hanging his head vpon the one side or the other: he setteth vpon without barking, and biteth whatsoeuer he meeteth with, whether it be his master, men knowne vnto him, or vnknowne, beast, tree, stone, yea his own shadow, sometimes he standeth still, sometimes he runneth, nowe on the right hand, now on the left hand, other dogs run from him, which notwithstanding hee fawneth vpon if he meete them, and maketh them afraid.

Dogs diseases.

The squinancie and paine of the thighes, is healed and cured after the same manner that it is in sheepe: notwithstanding the common remedie is to cause them to take a great glasse full of warme oile, and after to open the veine of the thigh, for their exulcetate eares comming through fleas, he must rub them with bitter almonds bruised: For to kill the fleas of dogs, you must rub them with sea water, or with brine with water, or with the old lees of oile of olues.

The squinancie.
The paine of the thighes.
Vlcers of the eares.

The

The other diſeaſes may be cured by the ſame remedies, which we haue already ſet downe for ſheepe.

Shut vp a dog cloſe in ſome place, for three daies in ſuch ſort as that he may gnaw nothing but bones, then gather his dung & drie it: the powder of this dung is good againſt all bloudie fluxes, if it be taken twiſe a day with milke, and ſo continued for the ſpace of three daies, remembring moreouer before you mixe the ſaide milke, to quench diuers ſmall pebble ſtones made red hot in the fire in it. This powder likewiſe is very ſingular in maligne vlcers, and thoſe that are giuen to be rebellious: likewiſe ſuch an emplaſter of dogs dung is excellent for the ſquinancie.

The eight and twentith Chapter.

Of the Carter, or horſekeeper.

WE haue heeretofore ſpoken of ſuch liuing creatures as are for the profit and vſe of men inhabiting countrie villages: in that which followeth we will ſpeake of thoſe which ſerue not onely for men inhabi ing the ſaid villages, but alſo for them which inhabite and dwell in cities and great townes, as are the horſe, the mule, and the aſſe. I ſet the horſe before the reſt, as being ſeruiceable for the peſant and countrie drudge, and alſo affoording great ſeruices to nobles, princes, prelates, & to be ſhort, to all ſorts of men, as being the beaſt, which is peereleſſe, for his comlines, beautie, courage, furniture, profite, and commoditie. Therefore let the carter or horſe-keeper to whom apperteineth the charge of countrie horſe, be a ſober and patient man, loning his beaſts well, and neuer beating them: but well may he acquaint them with the laſh, the whisking noiſe of his rod, with his ſpeech, and with his call: let them not at anie time labour more then they well may, either in draught or trauell, let him currie them cheerefully and merrilie euery morning, and in ſommer ſometimes after noone: he muſt not giue them to drinke but at ordinarie houres, and after their reſt let him oftentimes vſe to waſh their feete in ſommer with cold water, and ſometime with wine or the lees of wine for to ſtrengthen them withall, and with vrine if they be dulled or blunted, in the night time putting of their owne dung in the hollow or ſole of their hooſe: and if they be chafed or heated, or put out of the loue and deſire of their meat, he muſt waſh their throat with vineger & ſalt: let him not giue them hay, prouāder, chaffe, oats, or litter, before they be very well duſted: he muſt not let them goe without ſhooes or nailes: and let him be carefull that their traiſe, cart-ſaddles, collars, bridles, or other parts of their geares and harnes, be not torne or rent, or rotten. He muſt alſo know to ſowe with ſmall threed, packthreed, and ſhoothreed, to ſtuffe & make faſt his ſaddles:

A farmer muſt know the worke and trade of a ſadler and farrier.

to

to be ſhort, he muſt be acquainted with the ſadlers trade, as alſo with the farriers, and therefore he muſt neuer be vnprouided of his budget and pouch furniſht with tooles and neceſſaries about harnes and ſaddles, nor yet of his iron ſtuffe for his beaſts feete. He muſt be verie careful to finde out the cauſe when he ſeeth any one of his horſes halt, of what foote it is, and in what place of the foote being handled or tried he moſt complaineth himſelfe, and to put about his paſternes ſomtimes ſpech-graſe and ſometimes dung.

The caſting of hooues

He muſt alſo take great heed when his beaſt do caſt the old hoofe, and haue a new growing, and cauſe ſome thing to be giuen him for the helpe of the growth of the new hoofe, and when he hath his throate heated to cauſe him to be couered, if therewith he haue the cough: and if in trauaile he haue taken colde by raine or tedious weather, to giue him then to eate ſome fenugreeke or aniſe ſeede amongſt his prouender: to change him when he is paſt age: and alſo to take acknowledgement of the loue that one horſe beareth towards another, and accordingly to ſet them one by another in the ſtable, which hee muſt euery morning make cleane in ſummer, carrying out the dung and letting none remaine, and at night giue them freſh litter. He muſt alſo caſt an eie about and ſee whether his horſes do grow leane or no, and then to fat them with fetches boiled in water and mixed amongſt their oates, as alſo with millet, pannicke, rice, ſodden and mingled with meale of beanes, and a little ſalt. He muſt be content to take vp his lodging in the ſtable for feare of their falling ſicke, intangling themſelues in their halters, and growing of his beaſts, and let him be carefull and wiſe in ordering and placing his light in ſuch ſort, as that it may be out of danger, and to locke vp and keepe his harnes well, and made readie ouer night againſt the morning, that ſo when he is to returne to his labour into the fielde, he be not to ſeeke of any thing. If he haue any mules or yoong colts, he muſt put them by themſelues, and reſerue them for ſome other labour: and if any of his horſes fall ſicke, if it be not of wearines, dulnes, or chafing, he muſt put him out from among the reſt. If he haue any horſe that hath any ill propertie or fault, he ſhall be carefull how to amend it, as if hee be fearefull or timorous, or if he will not abide while one getteth vpon his backe, or if he will not go by or into any place, he ſhall hang within his eare ſome pretie little ſtone: and if this do him no good, he ſhall hoodwinke him, or ſet behinde him at his taile ſome flame of fire, or ſome ſharpe pricking thing; if he whinie much, he ſhall tie to his head a ſtone with a hole through it: if when a man is vpon his backe, he riſe and come aloft, he ſhall hit him with his rod vpon his forelegs: if he lie downe, he muſt be raiſed vp againe with rough words and ſtrokes: if he go backeward, you ſhall tie a corde to his cods, which ſhall be ſo long as that reaching betwixt his forelegs, he which rideth him may hold

To make cleane his horſe ſtable.

The faults of horſes.

hold it in his hand, and when as the horſe ſhall goe backeward, he ſhall pull it hard with his hand to make him goe forward, for ſo without all doubt he will go foorthright, and amend his fault: if the horſe be gelded, he muſt beate his thighes with a long ſtaffe taken out of the fire very hot, and burnt at the end: or he ſhall giue him feele of his whiſking rod betwixt his eares: if the horſe be hard to ſhooe, and troubleſome to handle and dreſſe in the ſtable, he ſhall put in one or both of his eares a little roundę pebble, and there make it ſure with one or both his hands, and keepe them in his eares, and thus he ſhall make him as gentle and meeke as a lambe. *A horſe going backward.*

It is alſo the carters part to gouerne his herd of mares and coltes carefully, that no inconuenience may befall them: he ſhall put them to feede, and ſhall ſend them to graſſe when it ſhall be due time, and that in large and mariſh groundes. Notwithſtanding mariſh ground doth ſoften their hoofe very much, and maketh them tender ſighted, and begetteth water in their feete: and for this cauſe I could like the high and hillie grounds better, being ſuch as from time to time haue raine or deawes dropping downe vpon them, and not drie at any time, and ſuch as are rather voide and free, then incombred with wood or other bodies of trees or logs: and yet further hauing a ſoft and ſweete graſſe rather then a high, great, and ſtrong graſſe. And notwithſtanding that mares be not ſo frolicke nor couragious, as horſes be, yet they goe beyond in the race, and ſtande it out a great deale longer, and againe they be not ſo chargeable to keepe as horſes are, for they are not fed with the beſt hay, they content themſelues to run in paſtures all the yeere long: true it is, that in winter and when the ground is all couered with ſnow, as alſo in the time of continuall raine, they muſt be put in ſome one houſe or other, and giue them ſuch hay as is good to eate, and in ſommer to keepe them in ſome good coole ſhadowie place, and well growne with good graſſe, and ſerued with cleere waters: but neuer vpon the rough and ragged mountaines, as well for that they doe hardly feede there, as alſo becauſe that ſuch as are with foale can hardly clime without great paine, nor come downe without endangering themſelues to caſt their colts. You ſhall not ſuffer the mare to take horſe ofter then euery two yeere, to keepe and breede of the beſt kinde and race, and not to bring in a baſe and degenerating kinde; againe to ſee that it be about mid March, to the end that at the ſame time that the mares were couered and horſed, they may eaſily feede their colts, hauing tender and ſoft graſſe after harueſt: for about the end of the eleuenth or twelfth moneth they foale, and ſo their milke is the faſter, better conditioned, begetteth alſo and nouriſheth fairer colts, and ſuch as thriue euen as wee our ſelues would wiſh: the ſtalions alſo thus attended are the ſtronger, and doe more abound with a well concocted and ſlimie nature, and *The couring of mares.*

not

not with a thinne and waterie, and withall they couer them with more courage, and beget greater coltes, and ſuchas are more hardie and ſtrong. He ſhall knowe that the mares are ready to take horſe, when they yeeld a whitiſh humour, at the place of generation, and that their priuie partes are more ſwolne, then they were wont to be, as alſo more hot then ordinarie, and eate not ſo much as they were wont. He ſhall let her take horſe twiſe a day, euening and morning before he let her drinke, and this ſhall be continued but ten daies, which paſt if ſhe refuſe him, he ſhall put her aſide as with foale, and ſhall take away the horſe, leaſt with his furious rage he make her that ſhee doe not conceiue.

The ſignes of the mares being readie to take horſe.

A horſe to couer mares.

The horſe that is leſſe then three yeeres olde, is not fit to couer mares, but he may continue good till he be twenty yeere olde. The mare is fit to take horſe when ſhe is two yeeres old, that ſo being three by her foaling time, ſhe may be able to feede it well: but ſhe is nothing worth for this purpoſe after ſhe is once ten yeeres old: for horſe begotten of an old mare are looſe & heauy. One good horſe is inough for twenty mares: which at ſuch time as he is to couer them muſt be well fed, and when the time approcheth muſt be fatted with barlie, fetches and ciches, to the ende he may the better ſerue for the purpoſe: for the ſtronger and more diſpoſed he ſhall be to couer them, the ſtronger will the coltes be which he begetteth. If he haue no courage, but be feeble and out of hart, you muſt tub the ſecret partes of the mare with a new and cleane ſpunge, and after rub the muzzle of the ſtallion with the ſame: if the mare will not admit the horſe, you muſt bruſe a ſea onion, and rub her ſecret part therewith, for this will warme her: and to haue a horſe of the colour that you would deſire, couer the mare with a couering of the ſame colour, at ſuch time as the horſe ſhall couer her.

A mare for breede.

The mare whereof we deſire to haue a good race, muſt not be vnder two yeeres olde, as hath beene ſaid, nor aboue ten or twelue; and vnderſtand withall that being of a colder complexion then horſe, ſo ſhe faileth before them in that worke: ſhe muſt be well made of bodie, broad ſpread toward one, hauing a comely and pleaſant looke, her flancke and rumpe large, well fed, but a little leane, to the end that ſhe may hold her horſing the better, that ſhe haue not trauelled of a long time: that ſhe beare not but euery two yeeres, to the end ſhe may the better feede her colt. When ſhe is with colt you muſt feede her well, you muſt not trauell or run her, nor leaue her to the extremitie of the cold, but keepe her in houſe when it raineth and ſnoweth, and as long as any great cold weather is, that ſo ſhe may the better bring forth a perfect colt. If the mare be in foaling, or that ſhe hath caſt her colt, you muſt bruiſe polipodie, and mingling it with warme water, cauſe her to drinke it with a horne. If ſhe haue foaled well, you

The mare readie to foale.

may

may not touch her colt with your hand : for and if you touch it neuer so little you hurt it. So soone as she hath foaled in the house, you must succour her with drinks of warme water, mingling salt therwith and meale also both euening and morning, for the space of three daies at the least : after this you must giue her good hay and sufficient corne, keepe her cleane with good litter, that so she may rest at ease : for this her good feeding doth cause her colt to prosper, and strengtheneth it. *The mare that doeth foale.*

After that the colt is foaled it must be left with the mare in a warme and wide place, to the end that cold may not hurt it, neither yet the mare by reason of the straitnes of the place : and when it shall bee stronger, it shall be accustomed to eate hay, to the end that the dams milke failing, it may haue learned to feede vpon a firmer nourishment, but it shall be let run with the mare in the pasture, that so she may not mourne for lacke of the sight of her colt : for commonly mares are sicke for the loue of their coltes ; if they cannot see them. When it shall be eighteene monethes olde, you shall begin to waine it, and put it in the house built for coltes, afterward you shall tame it, putting a halter about the necke, and that rather of wooll then of coard, that so it may not feele any hard thing to annoy it : and if it will not abide to be tied, you must make it fast with two thongs of leather or of hempe, or with a bridle vnto the manger, that so it may be acquainted with touching and handling, and that so also it may learne not to be afraid of any noise that shall be made : it will be good also to set it amongst others that are alreadie tamed, for seeing them so haltred, it will at length accustome it selfe to subiection : as yet you must speake it faire and touch it with your hand, sometimes rubbing the backe, head or bellie, and sometimes the rumpe, legs and feete, sometimes raising it vp, making it cleane, and rubbing it very gently; to be short, making so much of it, as vntill it become so tame that it know the boy or horseman that currieth it, and the rider that must backe it, and withall vnderstand their words and voices, and smelling him to know him before he get vp : sometimes you shall set a childe vpon the backe, to the end he may learne to indure to beare one; giue it good hay and good grasse : lead it to water with one already managed and fitted to the hand : after it hath drunke giue it oats, at euening straw it with litter vp to the knees, and in the morning rub the legs and the whole body with the same litter, and after leade it to drinke. When it is three yeeres old, you must breake and acquaint and fit it for such work as you shall thinke meete. As for example, if you would appoint it and make it serue you sometimes to take a iourney vpon, I could wish you to giue it a burning with fire vpon the legs : and this you shall commit to the doing of some skilful farrier, especially in the spring, autumne, & decrease of the moon, and at such time as these yong horse are full two yeeres old: and this must be done as well in the *To order a colt new foaled.* *To burne the colt with an hot iron.*

legs

legs before as behinde : ſuch courſe of burning doth harden and ſtrengthen their looſe fleſh being ſoft & not cloſe ſet together, it doth bring downe that which is puffed vp : it drieth that which hath much moiſture in it: it diſſolueth that which is gathered together, it burneth away and waſteth rottennes if there be any, and healeth old aches, curing and reſtoring the declined partes of the body, leſſening that which is growne too great, and not ſuffring it to growe any further. Adde heereunto, that the ſcab, farcie, and other malanders accuſtomed to ſeaze vpon their legs, cannot haue the power to breed vpon them. After you haue thus burnt them with a knobd hot iron, carrie them to paſture, and that at ſuch an howre, as when the dewe is vpon the graſſe : for ſo it will do them a great deale more good, then any thing that a man can giue vnto them in the ſtable, for ſo alſo you ſhal cauſe that the ſcarres of the burnings ſhall appeere leſſe, and that if they ſhew at all, that yet it ſhall be with good ſetting out of the legge.

To ſlit the noſtrels of colts.

And that which is more, if you purpoſe that euer he ſhould be for the race, ſlit his noſtrils, when euery way they are growne to the full : for howſoeuer the deformitie thereof ſhewe ill fauoured and very vnpleaſant to the ſight, yet aſſuredly it is a great helpe to a horſe to keepe him longer in breath, when he is in his race : and it is alſo an eaſe to ſuch horſes as are become broken winded, ſo that by this meanes they are brought to doe their maſters ſeruice ſome longer time. If you would gelde them and make them geldings, that ſo they may line the more quietly amongſt mares and other horſes, as alſo for the ſitting of them which deſire peaceable horſes, you may doe it, but not before they be a full yeere old, becauſe that then their ſecret parts do openly ſhewe themſelues, and for the better performance thereof, it were better to writh about and mortifie their cods altogither with pincers, than to geld them all at once, notwithſtanding they be of full and ſufficient age. For in gelding of them many doe die of extreame paine, becauſe you take all away from them, but if they die not, yet they remaine weakned and infeebled both in hart and ſtrength : whereas if you pinch them onely with pincers, they are not onely free from all perill of looſing their life : but alſo continue the more bold, there remaining vnto them ſome ſmall parts of the cordes and ſinewes of the generatiue members.

Furthermore, cauſe him to be curried by a ſeruant pertaining and belonging to thoſe buſineſſes : and being wiſe, gentle, and louing, that ſo by ſuch his gentlenes it may be preuented and foreſeene that the yoong colt do not learne ill maners, ſeeing it is ſo difficult a thing to take from them but one ill qualitie, after that they be hardened therein. And in this reſpect it behoooueth all the ſeruants about the ſtable to handle them kindly and ſpeake gently vnto their horſes, thereby to make them know and loue them the better. And by ſuch

meanes

meanes and carriage it is wrought that they ſuffer themſelues to be gouerned, that they ſuffer meate to be giuen them, and any man to leade them to drinke, that they ſuffer themſelues to be handled, touched, curried; to haue their clothes put vpon their backes, either the linnen one to keepe the flies away, or elſe the woollen one to keepe them warme, and that they ſuffer him to make the ſame faſt with a ſurcingle, for the better keeping of them on vnto the morning, when they are to be new curried againe. There muſt all litter be taken from vnder them, the cleane and whole thruſt vnder the manger, the foule and filthie together with the dung being carried out to the appointed dunghill, neuer forgetting to keepe the ſtable very cleane, nor yet to haue it furniſhed with all manner of neceſſaries, and euerie thing in his place. When as the horſes are in currying it is meete that they ſhould be tied, and made faſt vnto ſome high barre ſet vpright, that ſo they might haue their heads holden on high, and then after that to currie all their body, to rub them with a cloth, to bathe with ſpoonges well in very coole water, their head, eies, lippes, eares, iawes, noſtrils, mane, and taile, and afterwarde to combe them very diligently, and when this is done to rub all their bodies ouer, but eſpecially their legges and paſternes, with wiſpes of ſtrawe, well bounde and truſſed together, for otherwiſe they will grow full of the farcy, through the ſlouthfulnes of the ſeruants and the maſter himſelfe: aboue all things they muſt be looked vnto, whether they lacke any thing about their feete or no, ſeeing that oftentimes the want but of one naile, is the cauſe that a horſe caſteth his ſhooe in the midway, to the great preiudice of the poore beaſt, which ſometimes thereby is in danger of looſing his whole foote, eſpecially when he trauelleth in any rough and ſtonie ground: for a horſe that hath loſt his ſhooe, and goeth vnſhod, hurteth himſelfe in a minute of an howre, and ſo ſpoileth his hooſe, as that it is oftentimes ſeene to be quite loſt, or at leaſt to become vnfit for ſeruice. The horſes dreſſed and ordered as they ſhould be, and hauing eaten a little hay, muſt be led to water, from whence when they are returned, they ſhall haue oates giuen them well ſifted and fanned, and they ſhall be marked whether they eate well or not, that if neede be they may be looked in the mouth, to ſee whether there be any thing to keepe them from eating or no, and accordingly to take them in cure or not: for the common prouerbe is, That horſes go vpon their feete, but it is their meate that doth vphold them, and cauſe them to endure trauell: It is meete alſo to giue them ſometimes ſome rare and dainty thing which may pleaſe them, and may be more than ordinarie: for it is all one as when one doth make them ſo gentle, tractable, and tame, as that afterward they will ſuffer themſelues to be gouerned eaſily: to vſe them kindly alſo, and not to beate them, to

A prouerbe.

torment them, or caſt them into feare with high ſpeeches and threatning wordes, or elſe by any other meanes ſo long as they be in the ſtable: but rather to handle them with all meekeneſſe, aſwell in word as in touching or handling in what manner ſoeuer it be.

To breake or firſt backe the colt.

To fit the colt for the ſaddle, the good rider muſt firſt put vpon his head a halter with a rouler of woode, not attempting to doe any other thing at that time, and ſo to leaue him for two or three howres vpon the reines being of cordes, and after ſuch time to take all away for that day: the next day ſomwhat late to put it on againe, and ſo to leaue it for ſome certaine time: afterward taking him by his reines, he muſt leade him a little out of his place, drawing him along ſome twentie or thirtie paces from thence, ſometime walking him, and other ſometime ſtaying him ſtill vpon the ſodaine, according as hee ſhall ſee it good, that is, according to the ſtubbornes and frowardnes or the eaſines and gentlenes of the colt. So ſoon as he is come into the ſtable, he ſhall haue this halter taken from off him, putting him in his accuſtomed headſtall, and giue him rather ſome hay to eate, then to lead him to water, and after that to giue him his ordinary of oates. The third day he ſhall not only put on his foreſaid halter at the accuſtomed howre, but alſo a ſaddle, without ſtirrups, pettrell or crupper, girding him gently, and in all kinde maner, faſtning and buckling the ſame very lightly, he ſhall yet do nothing but lead him out of the ſtable by his halter, handling him alwaies louingly, and leading him with all gentleneſſe whither he will willingly go: and after that he is come into the fallowes and plowed grounds, he ſhall get into them, where hauing taken with him ſome long ſmall whisking wande, he ſhall firſt make him to ſtand ſtill, then afterward he ſhall make his colt go a little pace, and from that little, ſomewhat faſter and faſter, nowe and then giuing him a gentle touch or remembrance with his ſaide ſmall rod, which he ſhall then ſhewe vnto him: after making him ſtande ſtill againe, he ſhall holde him vp with curteous and friendly wordes, and rubbing him with his hand, ſhall carry him backe againe vnto his ſtable, and there preſently take off his ſaid furniture, and put him in his ordinary tiall or headſtall: the fourth day he ſhall make him readie as he did the day before, and hauing ſpoken him faire, he ſhall ſet a little boy vpon him, and if he ſee that hee beginne not to ſmite and ſnort and to take on any whit at all, he ſhall leade him by the reines out of the ſtable, and leade him a prettie way off, making much of him with his hande, and touching his heade, necke, and breaſt: and ſhall lead him to ſome blocke made to get vp by (and this ſo long as he is ridden without ſtirrups) and there cauſing the boy to come off, he himſelf ſhal get vpon him very lightly, and holding the raines euen in his hand, ſhall cauſe one to giue him ſome ſmall whisking rod, and with it he ſhall touch or ſtroake his necke, and ſlacking the raines a little,

tle,

tle, ſhall cauſe him to goe forward ſoftly : if he play any leaping tricks he ſhall ſtay him with the bridle ſtill ſpeaking louingly vnto him : and ſeeing that he groweth quiet, he ſhall make him go ſoftly, and ſet him on by a little faſter and faſter, vntill he make him pace and trot : hauing done this in good ſort for ſome prettie while, he ſhall bring him againe to his ſtable, where hauing faſtened him to the manger, he ſhall couer him that he take no cold ; and about an hower after he ſhall take off his ſaddle and bridle at once, rubbing him with freſh ſtraw, but eſpecially the places wet with ſweate, and then couering him with his cloath : and after hauing rubd his legs and feete, he ſhall let him drinke and giue him to eate and ſhake vp his litter about him. The fifth day hauing ſadled, brideled, and girded him as he had beene accuſtomed, he ſhall lead him to the place of getting vp, and there ſhall get vpon him, leade him through all manner of waies, ſometimes trotting, ſometimes ſoftly, vntill he begin to waxe hot, and this order ſhall be obſerued euerie daie, yet ſtill increaſing his exerciſe, making him go & trot ſo long as vntill he be wearie: this being the beſt way to make him lift his legs, & to carrie himſelfe handſomly in the reſt of his parts, not failing thereupon to bring him backe verie ſoftly vnto the ſtable, where he ſhall walke him vntill ſuch time as he leaue ſweating, & thē he ſhal ſet him vp in his place: he ſhal hold on this courſe with the horſe vntill he ſee him throughly won, & thē he ſhal cauſe to be ſhooed on his hindermoſt feet only, to the end he may cary him throgh rough & ſtony waies without hurting of his hoof: & he ſhal not vſe any thing elſe to ride him with, ſaue only his whippet & halter for to make him go, trot, gallop, run, flie, turne, leap, to riſe behinde and before : alſo he ſhall traine him to ſcoure ouer ſmall hils, the tops of hils, and great high hils, and againe to come downe the ſame verie ſoftly : and ſometimes riding him to the places where mils, forges, & ſuch other hāmer works are, as alſo where there is beating of linnēs, to the end that afterward he may not be afraid at any ſuch noiſe : he ſhall bring him alſo to the place where are carts, waines, tumbrels, cars, coaches, charets, wagons, flockes of ſheepe, herds of ſwine, kine and goats ; making him likewiſe to ſee lambs and calues or other beaſts & cattell hauing their throats cut. He ſhall marke all theſe things day by day, til he perceiue him readie, and ſee him certainely with his owne eies, that he doth not vſe to ſnuffe and take on at the ſmels of the foreſaide things, and then he ſhall furniſh him with all manner of things, and getting vpon him, ſhall guide him into many places, making him to goe by ſteps, to trot, to leap ditches, to ſwim riuers and other waters: and notwithſtanding this, he ſhall not faile to giue him ſuch a kinde of pace & going as ſhall ſeem moſt agreeable vnto him: for a genet would be trained vnto one maner of pace, & a courſer to another ; & ſo a horſe for the war, a curtall, or any other ſuch horſe, moſt neere vnto his naturall diſpoſition.

Signes of a good colt, as also of a good horse.

That colt, horse or stalion may be iudged to be good, that is great, thicke boned, of a good shape, hauing a small head, and so dry as that there is nothing of it but skin and bones: small eares, sharpe and straight; but great eies, standing out, blacke and cleane: verie wide nostrils, puft vp and great: small iawes, thinne and drie: his throat equally diuided on both sides: a necke somewhat long and made compasse wise, being thinne neere vnto the head: a short back, broad and somewhat shrinking downe like a vally: his maine curled, thicke, and long, and hanging downe vpon the right side: a broad breast, open, bossed out, and verie fleshie: his shoulders great and straight: his ribs round: his chine double: his bellie round trussed: his cods alike great and small: his raines large and somewhat giuing downe: his taile long, and tufted with haire, thicke and curled: his legs matches, thicke of bone, but thinne, drie, and bare of flesh, high and straight: his knee round and small, and not wrested inward: a round buttocke: thicke thighes, long, fleshie, sinewie and strong: a blacke hoofe, hard, high, holowed, round, good and open, and rising vp as it should toward the pasterns, and the crowne or top of it verie small aboue: which is chearefull, quicke, gentle, hauing no ill qualitie nor diseases: for they which are of such a nature are verie easie and tractable, and patiently indure any labour: also he must not be mad or franticke, fearefull, running backward, hauing the sciatica, a slacke eater, not scouring much, not vsed to lie downe in waters or riuers. And yet though he haue lost an eie, or haue beene hurt in any part of his bodie in any combate or fight, he is not to be accounted the worse for that, prouided that in the rest of his bodie he be sound: againe that horse is to be esteemed for a good stalion which hath followed the wars, because he will beget noble and couragious coults; and such as shall be fierce in all aduentures, and difficult & long enterprises: besides that he be of colour, bay, broune, red, dapple gray, watchet, or mouse colour, which is a certaine note of an actiue and couragious horse. And to speake in a word of the goodnes and fairenes of a horse: he must haue the eies and ioynts of an oxe; the strength of a mule, the foote of the same; the hoones and thighes of an asse; the throat and necke of a woolfe; the eare and taile of a foxe; the breast and haire of a woman; the boldnes of a lyon; the sharpe and quicke sight of a serpent; the pace of a cat; lightnes and nimblenes of a hare; a high pace; a delibrate trot; a pleasant gallop; a swift running; a rebounding leape and present, and be quicke in hand.

To know the age of horses.

The carter likewise must haue knowledge of the age of his horses, to the end he may so set them on worke as their strength will best beare. The age of horses is knowne by their feete, hoones, and specially by their teeth. The horse for the most part hath eight and twentie teeth. It is true that *Aristotle* would haue the horse to haue fortie.

tie: He beginneth to haue teeth the firſt three moneths, and by the ende of the firſt yeere he hath ſixe aboue and as many below: at thirty moneths he changeth two aboue and two below, and at forty two moneths he hath fowre new ones on both ſides, which touch thoſe which he had laſt comming. When he is fowre yeeres old, then the teeth called dogs-teeth do fall out and others come in their place. Before the ſixth yeere the great iaw-bone-teeth that are on the vpper ſide do fall out, and in the ſixth yeere thoſe that were firſt fallen do growe againe. In the ſeuenth yeere all the whole number is fulfilled, and they are all hollow: and after this time no man can certainly know how old a horſe is, but that about the twelfth yeere there is to be ſeene in them an extraordinary blackneſſe: adde further, that by how much the horſe groweth older, ſo his teeth grow longer, except ſome certaine ones which are ſhorter by reaſon of his eating of his meate, and theſe ſhew themſelues the more, as they draw neerer and neerer the fore-part of the iaw. The tenth yeere the temples begin to fall and grow hollow, and ſometimes the eiebrowes do waxe gray haired, the horſe doth make ſhew of ſadneſſe and a mine of melancholy in his forehead; he ſtoupeth in his necke; he is heauy of body; he hath eies of a deadly colour; his haire gray, that eſpecially of bay, blacke, and roane coloured; as that alſo of the cheſtnut colour, and other colours ſtanding vpon darke; the gray flea-bitten groweth white, and the white flea-bitten becommeth dapple-gray and ſomewhat darke. There are many wrinkles and plaits in the vpper part of his broome or bruſhing taile, and they are commonly counted to be as many yeers old, as there is wrinkles found in that place. Furthermore, an old horſe skin drawn vp with our fingers abideth ſo a long time, but a yong horſes falleth downe againe by and by.

To order ſicke horſes.

It is likewiſe the charge of a cartar, to haue eſpeciall care of the health of his horſes, whoſe continuance and terme of life as ſaith *Ariſtotle*, muſt be betwixt ſixteene and twentie at the leaſt; wherefore when he ſeeth them in health, and yet notwithſtanding leane, he ſhall giue them parched wheat, or of pounced barly the double meaſure. He ſhall rub them very well euerie day all ouer their bodies: aſſuring himſelfe that it doth more profite than being often handed and rubbed, than to giue them a great deale of meate. Likewiſe ſome ſay that the hand feedeth a horſe more than his meate. If they cannot ſtale which is knowne by the ſwelling of the bladder, and about the yard, he ſhal make them drinke pottage made of a pinte of wine, ſtamped garlicke, and ten whites of egges: or elſe the iuice of red colewoorts mixed with white wine. In the meane time he muſt take away from them their oates and barly altogether, and to feed with nothing but their owne and accuſtomed fodder and graſſe meate, to ſee and if they will recouer through the time of the yeere. It will be good alſo

Difficulty of vrine.

to put within the ſheath of their yarde, a collirie of hony boiled with ſalt, or elſe a gnat or liue flie, or quicke fleas, or a prettie little peece of frankencenſe: as alſo to lay to the reines and flanks oile mixed with wine: or elſe to annoint his yard with wormewood ſtamped, and boiled with vineger, and moreouer to ſquirt a firing full of coole water againſt his cods. Theſe medicines are good when the vrine hath ſcalded the priuy parts: or when they haue great heat in their vrine.

The ſcalding of the vrine.

Paine of the head.

The cruell paine of the head, and rage of the horſe is cured by the often vſe of ſmallage and much bran, in which you ſhall haue chopped the leaues of lettuſe & barley ſtraw newly gathered: let him bloud vpon the place where the braine lieth, or vpon the temples, or vpon both places, and let him ſtand in a very darke ſtable, and ſuch a one as ſtandeth low. You ſhall know if he haue paine in his head, by the diſtilling and dropping downe of water from it, in that his eares will be withered and hanging, his necke and head heauy and hanging downe.

The horſe benummed with colde.

The ouercooled horſe is cured by giuing him to drinke ſwines bloud all hot with wine: or maſticke and rue boiled with hony, or a little common oile with pepper. This diſeaſe commeth vnto him, when as ſweating and being hot, he is ſet in a cold place, and thereupon it draweth vp his ſinewes, and hardneth his hide: you muſt ſet him in a very hot place, couering him very warme with couerings downe to the ground, and putting vnder his belly ſeuen or eight great thicke ſtones red hot, you ſhall quench them there by caſting warme water vpon them by a little and a little, and oft, that ſo by this meanes the heat may make him ſweate.

The naile in the eie.

The naile in the eie ſhall be lifted vp with a little ſmall needle of Iuorie, and then cut quite away with ciſers: or elſe make a powder of a greene lizard, and arſnicke, put it into the eie, for to fret awaie the naile.

Againſt the bloud-ſhotten eie pearle, and ſpots in the eies.

Againſt the ſuffuſion there is a ſingular remedie, an eie ſalue made of the iuice of ground iuie ſtampt in a woodden mortar, or elſe the iuice of the berries of iuie running along vpon the ground: or the leaues of great clarie beaten and ſtamped in a mortar in wine, after that you haue let the horſe bloud vpon the veine of the eie, that hath the ſuffuſion, and to continue this remedy many daies euening and morning. Or elſe blowe into the eie through ſome pipe or quill the bone of cuttle pounded ſmall, or the ſeede of rocket whole, or elſe the ſeed of the herbe called *Totabona*, and there let it alone, till by his vertue it haue clenſed and taken away the ſpots: or the powder of the yolke of an egge and ſalt burnt together and put into the eie: or the powder of ſal armoniake, myrrhe, ſaffron, and the ſhauings of the cuttle bone.

The

The disease of the tong 20
The barbs. 21
The disease of the brest 22
The hard swelling on the knee-bone. 23
A long hard swelling vnder the knee. 24
The splent. 25
Windgals. 26
The spots. 27
Riccioli. 28
The lauar. 29
The secōd kinde of cloying. 30
The swelling called Formelle. 31
Encheuestre. 32
Spenochia. 33.
The first kinde of cloying. 34
Another disease of the foot. 35
The sole gone from the hoofe. 36
The frothy hoofe. 37
The fig. 38
The quitter bone. 39
The mole. 40
The fashions, ringworme, or running frush. 41
A pricke or stroke. 42
The scab. 43
The sop. 44
The swelling of the stones. 45
Stifeling. 46
The draught-gut fallen out. 47
The curb of the hough. 48
The fistula. 49.
The canker. 50
Rifts and clefts. 51
The iauers. 52
Long rifts or chops. 53
Ouerthwart chops. 54
Spanins. 55
Warts on the outside. 56
The curb. 57
The bony swelling vpon the hough. 58
The langie of the taile. 59
The falling of the haire of the taile. 60
The ich. 1
The disease of the rispe. 2
Wringings in the smal guts 3.
The nauel gall. 4
A lore backe 5
The horny swelling 6
The garrot. 7
The poll-euill. 8
The strangles. 9
The vlues. 10
The naile in the eie. 11
The cataract. 12
The stagges. 13
The glaunders. 14
Colde in the head. 15
The spreading worm 16
The lampas. 17
Bloodie rifts in the mouth. 18
The roong wounded or hurt. 19

The strooken eie.

The strooken eie is cured by applying vnto it a cataplasme made of bread crums steept in coole water, or bread tosted and steept in white wine, if this do no good you must open the head veine.

The bleared eie.

The bleared eie is cured by an eie salue made with frankincense, mirrhe, starch and fine honie: as also by a frontlet made of frankincense and masticke finely powdred and braied with the whites of egges, applied to the browes and suffred there to lie vntill the eies cease to shed teares, and after to raise the frontale with annointing the edges thereof with oile and warme water beaten together.

The skarre of the eies.

The scars of the eies are healed with rubbing them with your owne fasting spittle and salt, or with the powder of the cuttle bone mingled with burnt salt, or the seede of wilde parsnep pouned, and presled out of a linnen cloth vpon your eie scars.

Paine of the eies.

All paines of the eies are cured by annointing them with the iuice of plantaine with honie.

The hartsore or swelling of the kernels of the hart.

The enceur doth bring present death vnto horses: wherefore you must so soone as you see the brest kernell to be swolne, plucke it away without any staying: and if in thus pulling of it away any veine should burst, you must tie it at both ends with a silke threed: looke how much the kernell shall grow greater, so much greater an impostumation it would make, and not so only, but therewithall cause death.

The auiues.

The horse hauing druncke much, or watred very quickly after his heate and trauaile, and vpon it growing colde, and not being walked, doth beget the Auiues, which do but little differ from the disease called the kings euill, because as well in beasts as in man the kings euill commeth of too much cooling of water, the throate hauing beene heated, whereupon the horse looseth his appetite to eate and his rest likewise, and his eares become colde: you must presently prouide to helpe him, in taking away the Auiues after this manner: Bend downe the eare betwixt his necke and his chyne, make incision with a knife for the purpose along vpon the hard fleshines, which one would saie to be nothing but a very white sinew: plucke away the white carnositie or fleshie substance: lay to the place aswell within as without, a linnen cloth dipt in the white of an egge, couer the horse by and by with a good couering, and walke him so long as vntill that his eares become warme, giuing him a drinke made with water, salt, and meale, but first causing him to eate a little good haie: let him rest three daies in the stable, and eate and drinke there: or else make him hot fomentations, and those of such things as are proper in that case, to be applied vnto the part, for to remoone the humour, afterwarde applie a cataplasme made of barly meale and three ounces of rosin, all boiled in due sort in good strong red wine; and when the matter shall be gathered and ready for suppuration, giue it a gash with a knife, to let the

suppurated

ſuppurated & ripe matter out, afterward put in the holow place tents wet in water, oile, and ſalt, with bolſters laide vpon them and dipt in the ſame. This diſeaſe craueth a ſpeedie remedie, for and if you ſtaie till the auiues be gotten vp higher, it is paſt hope of curing.

The ſquinancie or inflammation of the throte.

The ſquinancie, otherwiſe called the diſeaſe of the throate, and ſwelling of the toong, requireth firſt of all that the horſe ſhould be let bloud vpon the veine vnder the toong, or of the palate of the mouth: after that a fomentation for the whole mouth, and for the toong with warme water: then after that a liniment of the gall of an oxe, or of ſalt & tartar beaten together with ſtrong vineger. And as concerning a drinke, you muſt take of old oile two pound, of olde wine a pottle amongſt all this you ſhall mixe nine fat figges, with nine leekes heades: temper them all well togither, and afterward make a decoction, in the end whereof, but before it be ſtrained, you ſhall adde of ſalt and nitre well pouned, ſo much as you ſhall ſee neceſſarie: of all well ſtrained you ſhall make a drinke, which you ſhall cauſe him to take with a horne twiſe a day, that is morning and euening a quarter of a pinte at a time. For his meate cauſe him to take greene barly, or fetches, or the meale of barly, amongſt which you ſhall mingle nitre.

The ſtrangles.

The ſtrangles of a horſe or glandules which happen vnder his throate, and fall downe from the braine much cooled, are cured by pricking him vnder the throate in the morning, afterwarde couer his head with a linnen cloth, and rub all his throate oftentimes with freſh butter, but eſpecially the place of his diſeaſe.

The barbes

The barbes hindring the horſe from eating by reaſon of hauing the toong ſwolne, are healed by making him eate peaſe, beanes, or the ſtalkes of peaſe or beanes, becauſe that the bruiſing and breaking of them cauſeth this ſwelling to go away: and if the barbes doe growe there againe, you muſt cut them out with a very ſharpe iron, being likewiſe very hot, for thus are they taken out of the hollow of the roofe of the mouth, and for the reſt not taken away by burning, you muſt cut them away with a paire of ſheares euen to the quicke.

The ſoupe, or excreſcence vnder the bellie.

For the excreſcence of fleſh growing vnder the horſes bodie, you muſt ſhaue the place and make inciſion with ſome knife fit for the purpoſe, and then afterwards annoint it morning and euening with the ointment called Dialthæa.

To chaſe awaie flies.

Flies are kept away from horſes ſores with pitch and oile, or greaſe mingled and powred vpon them, and then by ſtrawing fetch flower vpon them againe.

The paines of the gummes and teeth.

The diſeaſe of the gums and teeth hapneth oftentimes vnto colts when they are growing their teeth, temper of fullers earth (the beſt you can come by is that of Reines) in very ſtrong vineger, and therewith rub their iawes on the outſide, but more a great deale in the

place

place where the paine or swelled gums be.

The short winded horse.

The short winded horse, or he which cannot easily draw his breth, & which hath his flanks beating incessantly, & which notwithstanding that he be pricked, haled, and whipped, will not stirre, but pant very much and blow exceedingly; yea and which in eating of his meate cannot abstaine coughing: this same horse will hardly euer be cured. It is true that this disease being new, and caused of dust, dustie windes, foistie hay, or of hauing eaten some kinde of dung in his prouander, the remedie for it may be, to draw blood vpon him with a greene withie, and to power hot vpon his breast and backe the said blood mingled with wine and oile oliue: and hauing done this for the space of fiue daies, then the next fiue daies following to make him take downe lee at his nostrils, wherein there is mixt a portion of oile: to giue him this drinke after: mustard seede well fried, quicke brimstone, graines of paradise, of each alike much, make them in powder, and make thereof a decoction in honie and water, or else in some composition that is good and thicke, whereof you shall giue him euery morning the bignes of a big wallnut with sage and with thicke red wine, but such as is good and noble: or else make him a drinke with cloues, ginger, cummine, fennell-seed, and the rootes Galanga, as much of the one as of the other; all these being powdred, mingle therewith some egs and a little saffron, make the horse to take it downe with wine, holding his head high, to the end he may swallow it the more easily, and not suffering him to holde it downe, at the least for a good halfe hower, to the end that the drinke may passe through his bowels: after this drinke you shall giue him fresh grasse, or the leaues of roses or willow tree to temper the heate of the said drinke: but the horse must not haue eaten any thing for the space of one halfe day before the taking of this, neither yet must he eate any thing for the like space after the taking of it. Let him walke and leade him gently by the headstall, or else getting vpon him, let him pace him very softly, that so he may not cast it vp againe: and thus much for the cure of the short winded horse, if the disease be not growne too olde. Which notwithstanding that it should be, yet you may releeue it for sometime, if you seare him a little vpon both the sides of the flanks, to the end that this heate may cause to cease this great panting, which doth paine him in his flankes: and if withall you slit his nostrils, that so he may attract and draw in the aire and his breath, and as easily let it goe: besides these waies I would haue you also to giue him to eate, some grapes oftentimes, and to drinke some sweete wine. Another singular remedie there is, which consisteth in giuing him a drinke made with agaricke and fenugreeke tempered with red wine: or else to cause him to swallow the blood of a little dog, which yet is not aboue ten daies old: or to take the rootes of gentian, of wilde cucumers and bitter almonds, and to

powne

powne them with hony and water, and to make a drinke thereof: or elſe to giue oftentimes to eate of ſiluergraſſe.

The cough hath many cauſes, notwithſtanding that which commeth from the cheſt, as from the lungs and parts adioyning, or elſe from ſome other of the inward parts, which are noble and principall, and haue accordingly ſome notable office in the bodie; hath not a more ſoueraigne remedie, then the ſlitting of the beaſts noſtrils, and if after this the beaſt doe not amend, then to cauſe him to take downe a good pinte of the drinke following with a horne, Take fenugreeke and linſeed, of ech a quarter of a pecke, gum tragacanth, olibanum, and myrrhe, of ech an ounce, ſugar, the oatemeale of great wild tare, of each an ounce, all theſe being well powned, and let run thorow a bag, you ſhall cauſe it to be infuſed all a whole night in hot water, and the day following you ſhall giue it to the beaſt, as hath been ſaid; and this ſhall be continued, adding thereto a bowle of oile of roſes, euen to the end of the cure. Some cauſe fiue egges to be layd to ſteepe one whole night in ſtrong vineger, and the next morning when they ſee that the ſhell is become very tender and ſofr, they giue them to the horſe to take downe. Furthermore, you muſt neuer draw blood from the horſe in what place ſoeuer that it be, but it ſhall be good to giue it vnto him, and to continue the gum tragacanth with ſweet oile. *The cough in a horſe.*

The ague of a horſe is cured, by being let blood vpon the veine, which is found in the midſt of the thigh, to the quantitie of ſixe ounces, or about the place which is ſomewhat aboue the fundament: but if in neither of thoſe two places, or where they cannot be found, you muſt take the necke-veine toward the winde-pipe: if you perceiue that there is need of a drinke, you ſhall ſtraine a handfull of purſlaine, and mingle the iuice with gum tragacanth, fine frankincenſe, and a few prouence roſes, you ſhall make him take it all with honied water, in ſome pretie ſmall quantity. It is knowen amongſt other marks that he hath an ague, if he haue the ſtopping of his vrine, and his eares become colde, withering and hanging downe. *The horſe his ague.*

In the faintneſſe of the heart, it is good to keepe the horſe very hot, and to giue him this drinke; myrrhe two ounces, gum tragacanth foure ounces, ſaffron foure drams, melilot in powder an ounce, mercurie a pound, and fine frankincenſe ſo much as ſhall be ſufficient and proportionable: all theſe mixt together and made into powder, ſhall be reſerued for your vſe, and that ſhall be in giuing two good ſpoonefuls thereof with one pinte of water, two ſpoonefuls of honie, and two bowles of oile of roſes. This drinke will ſerue for many dayes, euen til the horſe doe finde himſelfe better. And further know that this drinke is good for thoſe that haue their backe or loines broken, and members very ſtiffe. *The faintneſſe of the heart.* *The broken backe.*

For the horſe that is ouerheated, you ſhall cauſe him to ſwallow with *The horſe ouerheated.*

with the horne in Winter three ounces of oile, with one pinte of red wine, and in Summer two ounces of oile only, with the like quantitie of wine that is aboue named.

Paine in the bellie. In the paine of the bellie, which some call the birth, you shall take the seeds of wilde rue or of the garden rue, you shall powne it well, & with hot wine you shall make him a drinke: vnto this drinke you may adde cummin and fennel seed in like quantity, and after keepe him hot in some close and well couered place: before you giue him this drinke you must get vpon his backe, and walke him a long time, and that rather in high places, than in low and plaine fields: when you are comming homeward, if the season be cold you shal cloath him with a good woollen cloth, rubbing his flankes with oile, vntill such time as he be become colde, and do breake winde. It would be good also to conuey into his fundament some hollow ioint of a reede or rose tree sufficient thicke, and halfe a foot long, anointed with common oile, and let this same hollow reed be in such sort fastened vnto his taile, as that it may not by any meanes come foorth, and this done, then to get vpon the horse, and to walke him. But howsoeuer things go, you must let him haue meat of hot qualitie, and to drinke water boiled with cummin and fennell seed in equall quantity, mingling with it wheat-meale, and keeping it very warme in a very close place.

Difficulty of vrine. For the difficultie of vrine, it is an approoued thing to take fiue or nine of the flies called *Cantharides*, to lap them in a linnen cloth, and applie them to the thigh, and howsoeuer it fareth with him, yet to keepe them there for some time: this will procure vrine: but in any case giue him them not in powder, clyster or drinke. It is good also to rub his cods, with the decoction of cresses, pellitorie and rootes of leekes.

For the sniuell. For the sniuell, take orpion and brimstone, cast them vpon burning coales, and let the fume goe vp into the horses nostrils, that so the humours congealed aboue in his braine may be resolued and cast foorth.

The flying worme. For the flying worme, take from him some bloud vpon the veines of the temples, apply a hot fearing iron very deepe vnder the throat, and in the hole put tents & plegets vpon them, moistned in the white of an egge, and after let him stand three daies in the stable.

The Iuuar. For the Iuuar take pepper, as also the leaues of colewoorts, olde swines-grease, and make an emplaister to be laid vpon the place.

The figge. For the fig, you must pare the hoofe so farre forward, as that you may make reasonable roome and space, betwixt the sole of the foote and the fig, then put a spoonge there and tie it very harde, that so the rest of the fig may be eaten away euen to the cleft.

The wenne. For the wen, open it when you shall perceiue it to be full of matter, afterward make a plaister of goose-turdes, wine, salt, and vineger, and

lay

lay vnto the sore: beware there be not in the bottome of it some strange and vnwoonted thing.

For the galling of the backe that is new done, take two great onions and make a decoction thereof in boiling water, afterwarde you shall apply it to the sore place as hot as the horse can abide it, all the swelling will be gone away in one night. Otherwise, take salt in powder, and wet it in strong vineger, putting thereto the yolke of an egge, with all this together you shall rub the place, and you shall see the proofe: or else wash the place with wine or very strong vineger, lay aloft vpon it lime made in powder and mixt with honie, continue this remedie so long as till the flesh be come a gaine, and the bone couered with it, then to cause haire to grow vpon it, you must poune the shels of small nuts burned, and being mingled with oile, annoint the places wanting haire, and it will be ouergrowen in a short time. *For a galled backe.*

For a horse swaied in the backe, or complaining of hauing beene ouerladen, applie vnto the reines of his backe an emplaster made of stone pitch, with the powder of bole armoniake, dragons bloud, olibanum, masticke, galles, of each equall waight: let the plaister be laid somewhat hot vpon the offended part, which you shall not take away vntill it easily forsake the place when you touch it: for then the horse is healed. *A horse swaied in the backe.*

For the swellings caused on the horse backe by the saddle, open it first with a knife, afterward lay plegets vpon it wet in the whites of egges three daies together: and the place if it be swolne and hard, it will be healed with coleworts, pellitorie, wormewoode, and beares-breech, bruised together and stamped and boiled together with sweete seame: apply it vnto the place offended and hurt. *The backe swolne.*

For the disease called graps, which are moules and scabs on the heeles, peele away the scabs, and then wash the place with the decoction of mallowes, brimstone, and mutton sewet: put the drosse or thicke substance of this vpon the place, and binde it fast and close thereto, afterward take it away and annoint the place with an ointement made of vineger, mutton sewet, the gum of the firre tree, and new waxe of all alike, and boile them altogether. *The scabs of the heeles.*

It is a singular good remedie for the iaundise which followeth: take of panicke corne, and smallage, of each a pound, boile them all with lupines and good hony, and of the whole strained, make him take a pint, eight daies together. *The iaundise.*

If he be costiue, he may be helped by drinke or clyster; the drinke shall be such, giue him ordinarily of the powder of wilde rue with the seede thereof steeped in good red wine: or else take the roote of yellowe flower deeluce with annisseedes and opopanax: and of all these beaten together very small, you shall make three doses or draughts, with three ounces of good red wine, and asmuch oile oliue, and those *Costiuenes.*

on

on three seuerall daies. In the clyster you shall put the iuice of pale coloured flowre deluce in three pound of the decoction of mallows and perrie, and into the whole you shall put of fall nitrum, and the dung of pigeons, of each an ounce, of oile de baies and rue, of each three ounces. After the clyster giuen, he must be walked a greatwhile, and very softly. Some farriers or horseleaches haue in this disease made triall of hares dung, with nine spoonefuls of hony, and fiue graines of pepper, to make a drinke to take with the broth of cich pease, or red colewoorts.

The swelling of the horses flankes. The horse oftentimes hauing eaten too much barly or other prouander that is hurtfull, is troubled with the swelling of his flankes, and the rest of his body: to take the same away, you must make a decoction of mallowes, pellitorie, beares-breech, mercurie, and other soluble herbes, putting thereto, bran, salt, honie, and oile: and hauing warmed this decoction, he shall haue a clyster giuen him with a clyster-pipe, hauing the shank therof proportionablie great & long: this being well accomplished, annoint his belly with oile, and after cause it to be rubd with a round staffe by two men, beginning before, and so going backward, stopping vp his fundament: after this get vpon him and walke him very softly, and a long time, vntill that he haue voided, not onely this clyster, but withall some part of the dung, which he had in his bodie, and he will be well by and by after.

For a horse that is burstен. For bursting or rupture, some are of opinion that there is nothing so souereigne as to take seauen ounces of the ashes of the wood of vine branches, or of elme, with three ounces of oile oliue, scallions braied, seuen in number, hony three ounces, fresh butter and goats sewet, of each an ounce, the iuice of plantaine three ounces, with olde white wine, or the broth of cich pease: this will serue for thrise, to be taken three seuerall daies together.

The stinging of flies. To keepe your great horses that they may not be molested and troubled in great heate, with the stinging of flies: you must rub their haire with the iuice of the leaues of gourdes.

The farcie. For the farcie of the legs, you must shaue the place, and after annoint it with the oile of iuniper for the space of fower daies euening & morning. and let not the horse go foorth to water all the whiles that his haire is not growne againe: or else let him haue a strake with an iron, longwaies, and ouerthwhart: otherwise, for the farcie of a horse how harde to cure so euer it be, you must take the rootes of common cotton thistle (which is the broad and white leaued thistle) and make him eate them in shiues with his oates, it will heale him without all faile, in lesse then fifteene daies, or three weekes, if it be continually giuen him to eate: and the remedie is very easie, seeing the horse will willingly eate it.

Clefts. For clefts which happen betwixt the ioint of the legge and the hoofe,

hoofe, ſhaue away the haire, waſh the place with wine, annoint it with an ointment made of ſoote, verdegreaſe, and hony pouned and boiled together, mingling therewith in the ende ſome lime : if the chaps be very deepe in, ſeare them.

For the ſcab.

For the ſcab you muſt let him bloud in conuenient places, according to that place where the diſeaſe is : for a conuenient purge, it will be good to vſe of the powder of the root of wild cowcumber mingled with ſal nitrum and giuen in a horne with white wine : the medicine oftentimes giuen doth purge him of euill humours : for an outward remedy, take quicke brimſtone, fat pitch, claie of Iudæa, called Aſphaltum, mingle all together and diſſolue it in new butter ſalted, and with this ointment you ſhal rub him all ouer his body in the greateſt heat of the ſunne, and by many perſons, and a long time. If you loue not rather to take of vineger a quarter of a pinte, of perroſinne fowre ounces, pitch or gum of the cedar-tree fowre ounces, and mixe them all well together in an ointment, with mans vrine and warme water, putting thereto of ſweet ſeame and olde oile, of each three ounces, make a liniment or cerote, if it like you not, better to waſh him all ouer, or elſe to foment him with vrine and warme water, and after to apply your liniment vpon the places ſo waſhed. The herbe called roſe-baie, or oleander, boiled in oile (I meane the leaues onely) is an exquiſite remedie for this diſeaſe, putting thereto fat pitch, vineger, and waxe : and remember alwaies in rubbing and annointings to rub the beaſt againſt the haire. It is alſo a ſoueraigne remedy to curry him firſt in the ſcabbed place vntill it bleede, and after to waſh it with lee made with one part of lyme, two of beane-meale, and three of the aſhes of aſh-tree, all theſe not boiled but ſteeped onely in the lee. After the waſhing you muſt annoint the place, with an ointment made of quick-ſiluer, hellebor, brimſtone, alum, colts-foot, and ſwines-greaſe.

The horſe ſwelled.

When the horſe complaineth himſelfe, and his flankes be ſwolne, as alſo the reſt of his body by hauing eaten ſome bad hay or prouander, you ſhall make him this drinke : take the thinne skins that are in the ſtomackes of three hens, and drie them well in an ouen, afterward powder them with halfe an ounce of pepper, and fowre ſpoonfuls of hony, and an ounce of the powder of fine frankencenſe, make him take this medicine with a pinte of warme wine, and to the end that it may looſen his belly, giue him at the fundament by a clyſter ſufficient great and long, a clyſter of the decoction of mallowes, mercurie, pellitory and other looſening herbes, putting thereto bran, ſalt, hony, and oile.

The colicke in a horſe.

Againſt the colicke : take aſarum bacchar, the leaues and roots of parſley and fennell, of each one ounce, blacke pepper two ounces, horehound an ounce, ſoothernwood halfe an ounce, fine honie a pottle,

tle, boile it well and scum it altogether, and thereof make trochiskes of the bignesse of filberts, and with a quarter of a pinte of good wine, you shall make the horse to take it in manner of a drinke: and the day that the colicke doth paine him, you shall bruise three or fowre spoonfuls of fennell seed, and cause him to drinke it downe roundly with wine, and then couer him well to cause him to sweat.

The swellings of the coddes. For the swelling of the cods or stones, make as it were a pap of strong vineger, fullers clay and salt, to annoint the cods withall twise or thrise a day.

For a fistula. For a fistula: make the hole wider, seare it, cast it into a salue made of vnquencht lime, so long as till the core or dead flesh within do fall out.

For a canker. For the canker: wash it with strong vineger, afterward sprinkle vpon it the fine powder of the root daffodils, rats-bane, and vnquenchtlime, put together into a pot and burnt to ashes.

The Iauar or scab in the hams. For the Iauar in the houghes or hams: seare the places along and ouerthwart with a hot iron, afterward apply thereto a cataplasme made of very new oxe dung fried vpon the fire with oile.

The horse cloied. If the horse be cloied you must take out the naile, and pare him to the quicke and till bloud come, then making very cleane the pared place to drop into it melted brimstone, or to fill it vp with an ointment made of turpentine, waxe, oile, hony and salt, all being made very hot, and a little cotton also dipped in the same ointment. Or else (which is an approued thing) to put vpon the hurt place on the inside of the hoofe of the horse, the leaues of white female mullein bruised betwixt two stones. And in case the maladie be a day or two olde, then you must hold the horse foote in warme water well salted, and lay and bind aloft vpon the foot a plaister of bran, swines grease, and salt water: or with small salt and strong vineger, or the powder of gals, or mirtles, or of the masticke tree, and then to seare him aboue, and to fill vp all the hollow of the foote with porkes-grease: and hauing thus dressed it so much and so oft as shall be needfull: let it be made vp, filling notwithstanding the hoofe on the inside with pitch, and annointing it oftentimes with swines grease as is aboue said. And to preserue the hoofe in his soundnesse and strength, apply vnto it aloft a cataplasme made of boiled mallowes stampt and mixt with hony and bran: put in the hollow of the hoofe the sewet of a sheep, and aboue the hoofe his own dung.

A lame horse. For the horse which halteth because of some stroake giuen him by some other horse vpon his sinewes: take of the sewet of a male-goate a pound, molibdena halfe a pound, rosin a pound, and copperas halfe a pound, make an ointment. The sinew stroken or wounded, or hauing receiued any other kinde of wrench in the knee or ioint, by the horse his setting of his foote in some bad and inconuenient place, is

healed

healed by taking an ounce of fenugreecke, as much of linſeed, fower ounces of ſwines greaſe, all boyled together ſo long as till it be thicke and much diminiſhed.

If the horſe interfering do wound himſelfe vpon his hinder feet, you muſt cut away the haire verie ſhort and bare from the place that is hurt, and rub it with common ſalt, tying vpon it ſome prettie plate of thinne lead, afterward taking that away to waſh it with wine. *The enterfering of a horſe.*

For the ſpauin in the hammes: you muſt raiſing the thigh vp on high, tye the veine called fontanella, and giue it a wound with a flemme to let it bleed, and after to apply the actuall cauterie, or hot iron vpon the ſpauin and to burne it long-wiſe and ouerthwart, and to heale vp the ſeared place, as in the iauar. *The ſpauine.*

The chaps are healed, if you burne them at either ende with a round hot iron: for this burne will keepe the chaps from going further, and then afterward rub them with waſhed lard in diuers waters, or with oyle of bayes mixt with maſticke, frankincenſe, vineger, and the yelke of an egge. *Chaps & cliſts.*

The grapes would (when the haire is once taken away) be waſhed with the ddcoction of mallowes, of brimſtone, and mutton ſewet, afterward applying the droſſie partes vnto the place, which being taken away there ſhal an ointment be made of new waxe, turpentine, and gum arabecke equally mingled. *The grapes or ſcabbes.*

For the hornie ſwelling in the circle of the houghes or hams: you muſt ſhaue the diſeaſe and put vpon it the droſſie partes of the decoction of hollihocke roots ſtamped: and after that a plaiſter of muſtard ſeede, the rootes of mallowes, and oxe dung, all boyled togither with vineger. *For the horny ſwelling.*

Cut the head and the taile from a ſnake, and deuide the reſt of the bodie into gobbets, roaſt them on a ſpit, gather the fat which droppeth, and apply it to the wound. *For the diſeaſe called paumon, or nauell galle.*

The diſeaſe of the hoofe or the corne: ſtamp colewoorts that are greene with old ſwines greaſe, lay it vnto the diſeaſe, and get vpon the horſe, and ride him indifferently to the end that the medicine may pearce into it. *The diſeaſe of the hoofe, or the corne of the foote.*

For the garrot: plucke away the fleſh that is dead with a ſharpe inſtrument, and waſh the place with warme wine, afterward apply plegeats thereto moiſtned in the white of an egge. *The garrot.*

The diſeaſe of the necke: pearce the fleſh in fiue places on both ſides the necke, with an iron ſharpe like a naule, put a ſeton through euerie hole, and let them abide there fifteene daies. *The diſeaſe of the neck.*

For the palamie: take away the fleſh from the pallat of his mouth with a verie fine inſtrument, and that in ſuch quantitie as that the humour may eaſily come foorth, afterward cleanſe and rub his pallat with honie of roſes, iuice of chiboles, ſcallions and burned wheat. *The palamie or bloudie chops in the palate.*

The courbe, or a long swelling beneath the elbow of the bough.

The courbe: cut the skin alongst the haire, according to the bignes of the courbe, apply thereto a linnen cloth, wet in warme wine, straw vpon it the powder of verdegrease, and thus continue vnto the end of the cure.

The swelling of the knee.

For the knee swollen: take a pinte of strong vineger wherein you shall temper a little salt, of burnt copper halfe a pound, and of sinople so much as shall be needfull and necessarie.

Broken and chapt knees.

For the knees that are broken & chapt: take common oyle, linseed, ashes of rie-straw, & all being put together make an ointment therof, to annoint the sore place euening and morning vntill it be whole.

Chafings.

For the chafings which happen vnto the necke or backe of a horse carrying saddle packes or saddle: lay vpon the place the leaues of wilde blacke vine.

Old tumours.

In old and hard tumours make this cerote: galbanum two ounces, rosin, and waxe, of each one pound, gum ammoniake, and blacke pitch, of each halfe a pound, and of oyle so much as shall be needfull to incorporate and make vp all the rest in good forme.

Wormes and botes.

Against the bots or wormes: make him drinke water wherein rye hath boyled, or mingle amongst his bran some brimstone: or make ashes of the woode of the oliue tree, or powder of dried wormwood together with the cornes of raw lupines, and centaurie, alike much of all, two ounces of the seede of turnups, harts-horne one ounce, and with white wine, it will serue to take at three times: the day after the three aboue named, you shall make him a clyster of the decoction of wormewood and rue, putting thereto in the strayned liquor two oxe galles, and an ounce of aloes.

The currant.

Against the fluxe of the belly, which some vse to call the current, there is made a drinke of great seruice & vse of the powder of gales, with red wine & the flowre of starch tẽpered together: or els if the flux come of taking cold, giue him sops dipt in sweet red wine & rose-water: & rub his raines & belly with red wine, oyle of roses & a little salt.

Flux of blood.

For the fluxe of blood passing by vrine, you must let him blood of the veine of the breast: afterward make a decoction of wheat with sweete seame, and the powder of the rindes of drie pomegranates, straine them all to make a drinke for to giue him euerie morning, not putting him to any trauell at all. Likewise you shall apply a cataplasme vnto his backe and raines, made with knotgrasse, bole armoniake, and the blood of the beast, mingled together with strong vineger, or thicke red wine, which may also serue for them that haue their raines relaxed or haue beene pricked with a lancet.

The restie horse.

A restie horse for to make him goe forwarde, must haue a coarde tied vnto his cods, and it must be so long as that reaching betwixt his forelegs, it doe come vp so high, as that the rider may holde it in his handes, and so may pull it hard when as the horse should offer to goe backward:

backward : but if it be in a gelding ; you muſt bumbaſt his buttockes with a good long ſticke taken hot out of the fire, and burnt at the end, for it will make him goe : and likewiſe if you vſe the ſame courſe in his rearings, it will correct him and make him leaue them.

If the horſe at any time with eating of his hay doe eate any venemous beaſt, as ſcorpion, ſpider, or the venemous flie called Bupreſtis: he muſt be couered till he ſweate, and then in all haſt let him blood in the roofe of his mouth, which ſo ſoone as it is run foorth, ſhal be giuen him againe to drinke warme, and in ſuch quantitie as it came foorth ; for his meate giue him leekes and wheate boiled together. Looke more aboue in the chapter of the neateherd or oxkeeper. *Poiſon eaten.*

For the ſtinging of vipers, a liue cocke ſlit through the middeſt and applied warme vnto the wound is much woorth : and preſently after this a powder of the roote of yellow daffodill with ſtrong wine and ſalt made all in a drinke for him : or elſe the roote, leaues and fruit of wilde vine made in aſhes and drunke with good wine: or elſe take preſently that kinde of bugloſſe called *Echium*, and drawe out of it a good pint of iuice, hauing firſt watered it with white wine or water of *Carduus benedictus*. If you perceiue that the leafe will not yeeld you iuice inough of it ſelfe, make the horſe firſt to drinke that which you haue, and after applie the ſubſtance of the herbe vpon and about the ſtung place and couer it. *The ſtinging of vipers.*

The ſhrew by her biting of the horſe maketh him oftentimes to die, as we haue oftentimes ſeene both in horſe and oxen: this is a beaſt as big as a mouſe, of the colour of a weſill, with a long ſnout & a ſhort taile : ſhe faſtneth vpon and infecteth moſt chiefly the cods, and maketh fower ſmall wounds: for to heale this venemous biting, you muſt cauſe him preſently to take downe through the noſe bay leaues ſtamped or powdred, with water : and to applie vnto the place that is bitten, cummin and garlicke ſtamped together : and in caſe there by any vlcer, you muſt foment the place with brine, or with the decoction of the mirtle-tree, and to ſcatter and ſprinckle thereupon the powder of burned barlie : or of a pomegranat rinde. Looke more in the chapter of the oxkeeper. *The byting of the ſhrew.*

The biting of a mad dog hath for a ſingular remedie, if it be vſed before it be nine daies, the flowers of Medicke fodder burned and mixed with old ſwines greaſe, and applied vnto the wound, or elſe to ſtampe it with olde white wine, and cauſe him to drinke it. Alſo the roote of the eglantine tree made in powder and put vpon the wound, or giuen him to drinke with good olde wine. Likewiſe the berries of elder tree, or the iuice of the leaues thereof, or of aſhe tree. *The byting of a mad dog.*

Hens dung ſwallowed by hap, bringeth frets and wrings in the bellie : for which take of old ſmallage and drie two ounces, and cauſe him to drinke them with wine and honie : afterward walke him vntill *Hens dung ſwallowed by the horſe.*

his bellie rumble,and that he begin to dung.

The leane horse. The leane horse may be made fat,if you giue him to eate fasels or long pease boiled in water and mixt amongst his prouender: but and if he should be so weake as that he could not swallow them downe:you must strengthen and get him into courage againe, making him sup egge yelkes with sugar in very good quantitie:warme water mixt with salt,and meale of millet, and giuen to the horse doth greatly fat him. Also panicke, rice and millet boiled and mixt with beane meale and salt are excellent good,and it would be giuen him fower times a day, but not much at a time,least the horse should cast it vp againe.

The raging loue of mares. It commeth to passe sometimes that mares are troubled with a kinde of rage, that is to say, when they see their owne pictures in the water they are taken with loue:and hereupon they forget to eate and drinke,and drie vp their heat or signe of desiring the horse. The signes of this madnes are manifested by their running through the pastures, as if they were spurd,oftentimes looking round about them, as if they sought and desired some thing. They are cured of this madnes by being brought vnto the water; for when they shall see by their shadowes therein how ill fauoured they be,they will forget the first shape which they had beheld before.

The horseleatherie of P. Vigetious translated by the author. A further discourse and more ample treatise of the diseases and curing of horses is to be looked for in the workes of *P. Vegetius* concerning the curing of the diseases of horses, and which I haue translated, or rather paraphrastically runned ouer in French out of Latine. Looke also into the chapter of the ox-keeper aboue handled.

The nine and twentith Chapter.

Of the asse.

HOwsoeuer it be that the asse is but a base and contemptible thing, notwithstanding he is very necessarie in euerie countrie house, because he trauelleth and doth his necessarie worke, better then if he were greater and more corpulent, as to turne the mill, to grinde the corne, to beare the corne to the mill, and diuers other implements and commodities, as butter,cheese,and creame,to be sold at the market, and to bring the same or any other thing backe again home vpon his back:to toile the earth that is light & not strong & stiffe: to draw carts that are not too heauie laden, besides the commoditie of the milke of the shee asse, which is a soueraigne remedie as well for them that be in a consumption, that be weake, impoisoned, rheumaticke, and such other like diseases; as also for to make meate, to white, make tender and smooth the faces of women, as we reade that *Poppea* the wife of *Nero* did, vsing bathes, to keepe her hew and colour most faire and her flesh most smooth and white. To let passe

The milke of an asse good for them in consumptions. and for to make faire the countenances of women.

and

and to say nothing of the flesh of the asse, which whiles it is yet yong is very delicate, and full of pleasant taste and sauour in eating, and for that cause hath sometimes beene of great request in Rome, as also in our time in great estimation, by a great noble and worthie man in France: who caused a flocke of asses to be kept and most carefully looked vnto: and in like manner to say nothing of the hide, whereof there are made very good sieues to riddle the corne, as also tabers to daunce by, and drums for the wars. Wherefore the good housholder must appoint him also one to order and gouerne him, who notwithstanding shall not be much busied in taking charge of and looking to him, seeing he is very easie and light to keepe: he is contented with a little meate, and that of any sort euen such as one will giue him: for some feede him onely with leaues, thornes and thistles: some doe fat him with chaffe and straw, which are commonly found almost in all countries: it is true that he must not be let feede vpon or haue giuen to eate any hemlocke; for it casteth him into such a sound sleepe, as that he seemeth to be not so much like a blocke, but rather starke dead. If you giue him now and then some bran, bread or millet, it pleaseth him as well as a great banket: he looketh not worse, when he is ill handled and curried of him, who hath the charge of him: he doth easily indure strokes and hunger, and is not easily tainted of any disease: notwithstanding the asse-keeper shall haue care that the shee asse may be couered in due time, that is to say, from mid march vntill Inne, to the end that foaling about the end of the yeere, it may happen to be in the spring of new grasse, and the age of the asse to be couered must be from three yeeres to ten: at which time you must giue leaue to the shee asse to run, in regarde of the good store of fruit she hath brought forth: but on the contrarie not to suffer the male to continue out of labour, seeing that much respeit, will bring him to an habit of slothfulnes. He shall suffer the yong asse to sucke it dam, vntill it be two yeeres old: or else you shall let it sucke a mare, because it is somewhat better: he shall not set the yong asse to labour before it be three yeeres old, which is the time wherein you must accostome it to beare burthens, to draw in the plough, and to serue to ride vpon.

Rest maketh an asse alwaies after vnfit for labour.

The asse that is not aboue ten yeeres olde, nor yoonger then three, which is great, well squared in his members, hauing sufficient grosse eies, wide nostrils, long necke, broad brest, high shoulders, great back, a large chine or crest, great cods, a flat crupper, a short taile, his haire drawing toward the colour of blacke, sleeke, and listed, hauing a black marke in the forehead, or all along the bodie, shall be well accounted of. But on the contrarie there is no account to be made of such as haue an ashie coloured haire, or somewhat gray, as the most in this countrie are, and least of all of such as are of a small stature. To be short, he shall be carefull to heale them when they be sicke (although as hath beene

The markes of a good asse.

The diseases of the asse.

ſaid, this beaſt is not very ſubiect to diſeaſes) and that by vſing ſuch remedies as he doth vnto horſes.

The aſſes-hyde. The houſholder being a good husband, ſhall keepe the hide of his aſſe, to tan and dreſſe to make ſhooes as well for himſelfe as for his familie, for as much as ſhooes made of an aſſes skin and vpon the backe part, whereon the aſſe doth carrie his burthens, are ſo durable, as that one ſhal ſcarce ſee any end of them, though you weare them amongſt ſtones, grauell, thornes, or other ſuch like places, notwithſtanding with their long laſting they grow ſo hard, as that they cannot be worne any more.

The aſſes hoofe. The hooſe of an aſſe burnt and made in powder doth heale the falling ſicknes, and that of the wilde aſſe hanged about the necke, or ſet in a ring, in ſuch ſort as that it may touch the fleſh, is ſingular againſt the ſaide diſeaſe, as alſo againſt the ſwimming of the head, which commeth through a weakenes of the braine. Some thinke that the wilde aſſe is that beaſt which is called *Ellend*, and much ſeene in *Polonia*, *Lituania*, and *Suecia*, and that becauſe that the *Ellend* hath eares like vnto an aſſes: the French men which haue trauailed into *Polonia*, ſaie that the *Ellend* doth reſemble the aſſe in nothing but in her eares, as otherwiſe in al points almoſt being like vnto the hart: hauing a clouen foote, but that he is a great deale bigger, and in hornes like vnto a fallow-deere.

The aſſe doth know of the raine before it come. Although the aſſe be mocked of the moſt becauſe of his long eares, yet notwithſtanding thoſe eares how great ſoeuer they be, doe ſerue him for to ſhewe his vertue, and to make to appeere his vnderſtanding and certaine knowledge which he hath of the change of the weather, ſeeing that if it will turne to raine, he then laieth them ſo flat vpon his necke, that one would ſay they were glued to it.

The thirtith Chapter.

Of the Mule keeper.

A Good houſhoulder muſt not be vnfurniſhed of things neceſſarie for his houſe, whether they ſerue for food & ſuſtenance, or for eaſe. Wherefore although in reſpect of ſome manner of worke he may be content to want mules, hauing the benefite of horſe to carrie him to the market and other places whither his buſines ſhall call him: yet notwithſtanding the mule is neceſſarie for his eaſement, whether it be that he would rather ride vpon mules then vpon horſes, becauſe of their eaſier pacing: or that by reaſon of age, or want of health of body, he cannot endure the trauaile of a horſe, but is conſtrained to prouide a horſelitter to carrie him in: I will further ſay that in ſome places, as in *Auernia*, that for the ſcarcitie and ſmall number of horſe and oxen, the mules are eſteemed of great value, and are

The mules of Auernia.

vſed

vſed to toile the earth, to trauaile and do other neceſſarie things tending to the commoditie and maintenance of the houſe, to ſaie nothing that mules are proper beaſts, ſtrong and able to carrie great and heauie burthens, as trunks, ſacks of corne, and meale, and ſuch other burthens which horſes could not beare.

The ordering and charge of mules is like vnto that of horſe, as well in reſpect of their meate, paſture, feeding, and furniture: as in the curing of their diſeaſes, whereunto they are ſubiect, and therefore wee will knit vp in fewer words what may be ſaid of them, both for the cauſes rehearſed, as alſo for that I willingly leaue the whole knowledge of their feeding and handling to thoſe of *Auernia*, amongſt whom they are in ſuch high requeſt. Notwithſtanding to ſpeake ſummarily, the mule-keeper muſt not onely be carefull of the well feeding of his mules, but alſo of making of the moſt profit of them. The profit that may be raiſed of them, conſiſteth in the very ſame commodities, that may be raiſed of the aſſe, and that is principally of goodly herdes and flockes. Hence he ſhall chooſe a good and goodly beautifull male-mule, aſſe, or horſe, and likewiſe a female, mare or ſhe aſſe, for the ſaddle: for if both of them happen not to fit the turne and bee wel conditioned, yet that which doth, cannot be but valiant and couragious: and although that male and female mules be ingendred either of the male aſſe and the mare, or of the horſe and female aſſe, yet thoſe are the beſt which come of the aſſe and the meare: for thoſe which come of the horſe and the aſſe, though their name be according to their ſire, yet they reſemble in conditions their dammes altogether. Wherefore it is beſt, to the ende you may haue goodlie and beautifull ſhe mules, to make a ſtalion of an aſſe, which is faire and beautifull, of a good race, and that hath beene well tried. You muſt chooſe one that is three yeeres old and vpward, great and corpulent, of a ſtrong necke, ſtrong and large ribbes, of an open and muſculous or fleſhie breaſt, fleſhie thighes, well truſſed legs, of a blacke colour or fleabitten with red, tending to a bright, or of a graie ſiluer colour, or of a darke murray colour: for commonly aſſes are of a mouſe colour, but they which are of this haire are not ſo liuely and ſtirring as the other, and if there come foorth either male or female mule, wearing this liuery, they are not ſo good and ſutable. The mare muſt be leſſe then ten yeeres old, great and faire, and of good limmes, to the ende ſhe may take and keepe the nature of the aſſe diſagreeing with her body, and being of another kinde then ſhe her ſelfe: and that ſhe beſtow vpon her fruite not only the gifts of the body, but alſo of ſpirit & linelines: the yoong ſtaieth in the dams body twelue moneths, wherefore the mare would be couered from mid-March, vnto mid-Iune, to the ende ſhee may foale when graſſe is in full force, thereby to be ſure to get good ſtore of milke. She hauing brought foorth her yoong

The diuers maners of the ingendring of male and female mules.

The markes of a good aſſe to couer ſhe mules.

one, it must be vsed after the manner of yoong colts: excepted onely, that after it hath sucked sixe moneths, the damme can giue it sucke no longer, by reason of the ache of her teates, but it must be made to sucke some mare, that so it may grow more lustie, or you must let it go with the damme, that it may learne to eate, so that still it be prouided of milke to sucke.

Signes of a good horse-mule.

Of a good mare-mule.

The horse-mule well chosen, must be of a grosse and round body, hauing small feete, and thinne legs and drie, a full and large crupper, a broad and soft brest, a long and compassed necke, a drie and small head. On the contrarie, the mare mule must haue her legs somewhat grosse and round, a straite and solide body, and a crupper hanging towardes the taile. The mare-mules are stronger, mightier, nimbler, and longer liuers then the horse-mules: but the horse-mules are more tractable and more easie to guide and learne, then the mare-mules be. Both of them are subiect to lunacie, but to take this faulte away, you must make them drinke some wine oftentimes: if they be froward and vnwilling to be sadled, you may tie vp one of their forelegs euen vnto their thighes, to the end that in the meane time they may not fall backward. If they be harde to shooe on the right foote behinde, you must tie vp the left before.

The diseases of the horse and mare-mule.
Ague.
Difficultie of breath.
Scabs in the pasternes.
Leanenes.
Cough.
Colicke.
Wearines and ouerheating.

The mare-mule is subiect to the same diseases that the horse, as hath beene said: notwithstanhing there is something peculiar in them for which the remedies do follow: when she hath an ague you must giue her taw colewoorts; when she bloweth and sigheth much, and hath a short winde, you must let her bloud, and afterward giue him to drinke, three quarters of a pinte of wine, with halfe an ounce of oyle, and as much frankincense, and two pintes of the iuice of horehounde. If she haue the moules and scabs about her pasternes, called the grapes, you must put vpon them barly meale, and open the impostume if any thing be in it. Their leanenes and languishing is taken away, by giuing them oftentimes drinkes made with halfe an ounce of brimston beaten, a raw egge, and a dram of myrrhe with wine. The same remedie is good for the paine of the bellie and the cough. If he be wearie and ouer-heated, you must cast grease and wine into his throate.

Let all women that desire to haue children, beware that they neuer take the sent of the vrine of a horse or mare mule: for the smell of their vrine doth make women barren, because that they themselues are naturally barren.

The smoke of the hoofe of a mare-mule.

The fume of the hoofe of a mare-mule put vpon hot coales & set on fire, is so odious vnto rats and mise that are in the house, that they by and by feeling the smell, runne away with great swiftnes: of which you may make triall.

The end of the first Booke.

THE

THE SECOND BOOKE OF THE COVNTRIE HOVSE.

Of Gardens.

The first Chapter.

Of the situation, inclosure, ground, and fashions of hedges requisite for gardens, whether they be for profit or for pleasure.

IT is requisite that we should now occupie our selues in describing the manner of husbanding and tilling of the earth, hauing run through al that belongeth to the building and inclosing of a farme, the office of the chiefe Lord, and of the Farmer & his people, and generally whatsoeuer concerneth the raising of profit by keeping of cattell. We will begin therefore (following the order before propounded) to describe gardens. And first with the kitchin garden, which hath beene deuised and appointed to ioine to the one side of the garden of pleasure, and yet separated from it by the intercourse of a great alley of the bredth of three fathoms, hauing either a well or conduit from some fountaine in the middest thereof (if you cannot conueniently haue a particular well in the middest of euery garden) and besides with an hedge of quickset verie thicke, in which there may be made three doores, one to the house, another to the place of the well or fountaine; and the third opening vpon the orchardes Inclosure. This hedge shall be planted likewise with hasell trees, gooseberrie bushes white and red, pepper trees, curran trees, eglantines, brambles, woodbinde, the wilde vines, both the hollies, eldar trees, and intermingled now and then by the way with white thornes, wilde apple trees, and apples of paradise, seruise trees, medlar trees, and oliue trees: for it must be more thicke and a greater defence then any other, to preuent danger of cattell getting loose, which might a great deale more indammage the good and profit of their maister, then they could any way pleasure him. *A quickset hedge.*

The situation of the said gardens must be (as we haue said before) neere vnto the house, placed vpon the north rather then vpon the south quarter, to the end that the chiefe Lord and owner of the farme, may out of the windowes of his lodging enioy the pleasure and beautie of his gardens: in some plaine plot of ground, which is as it were a little hanging, and thereby at the foote thereof receiuing the streame *The garden dore.*

of

of some pleasant running water, either from some spring & fountaine, or from some well, or else from the falling of the raine: but far remooued from the threshing floore and barne, to the end that the herbes may not be hurt, by the dust, durt, small straw or chaffe, which might be conuaied along from the threshing floore vnto the garden by the winde, when the corne is in threshing: for such chaffe hauing taken hold vpon the leaues, doth pearse them and fret them through, and being thus pearsed they burne and parch away presently. Likewise for the benefit of their labour, it must be iustly lined out and cast into a square very equally and vniformally, but yet somewhat sloping for the conueiance of the fall of raine water, and of the moisture of the dunghill, which continually will be thereby running downward along the allies, by meanes of the raine, and so will mend the idle and vntoiled ground: and by the side of either of those two gardens within the wall and inclosure of the house, there shall bee kept two other gardens (if possibly it may be) seuered and separated by other hedges, and a great path betwixt them, containing in bredth no lesse then three fathoms or eighteene foot, euery one finely paued with good pit stones or burned tiles, or made with steeres, or filled with sand, that is to say, by the side of the kitchin garden, a particular garden for hempe, line, saffron, parsneps and other things of profit and good husbandrie, and this requireth a proper and special kind of ordering: and by the side of the garden of pleasure, another garden with pulse, as peason, beanes, fetches, rice, panicke, millet, and such other thinges, for they serue greatly for the keeping of your familie.

The paths in the gardens.

The inclosure.

The inclosures of the gardens must be such as the commoditie and necessitie of the place doth require, that is to say, of walles if the reuenues of the house will beare it, or of a strong and thicke quickset hedge, if there want either pit stone or reuenues to build the wall withall. Notwithstanding it is least cost (to speake the truth) and more profit to inclose and compasse them in with a quickset hedge then with a wall: for the quickset hedge doth endure a longer time, and asketh not so great charges, neither to trim it nor to repaire it, as the wall doth: such a one is that which is made of brambles and thornes, as white thorne, or with the plants of elder tree, or other plants with tufted flowers mingled and set amongst the brambles, the same being cut by the taile and made plaine and eeuen when the time of the yeere serueth, as we see here in many places of France. Some there be that compasse and inclose their gardens with ditches and banks, but small to their profit, seeing the moisture of their gardens, which should serue them, is thereby conueied away and taken from them, and this holdeth in all other cases, but where the ground is of the nature of marishes. The common inclosing vsed by countrie men, is of thornes, osiers and reedes, but such hedges doe require almost euery yeere

new

new repaire, reliefe and making, in putting new ſtakes therein, whereas if it had an abiding and liuing roote, it would free the gardiners of a great deale of trouble, coſt and trauell.

Grounder. The ground of the gardens muſt be good, of his owne nature free from ſtones, durt and hurtfull herbes, well broken and dunged a yeere before it be digged, to be ſowne, and after it hath beene digged and dunged againe or marled, you muſt let it reſt and drinke in his dung and marle. And as concerning the nature and goodnes of it, the clayie, ſtiffe or ſandy ground is nothing worth, but it muſt be fat in handling, blacke in colour, and which crumbleth eaſily in the breaking, or ſtirring of it with your fingers, or which hath his greene turfes or clods breaking eaſily vnder the pickaxe, and becommeth ſmall with labouring, as the ſmall ſand, and generally all grounds that are good for wheate, are good for gardens. It is requiſite alſo to the end it may bring forth greene herbes in abundance, that it be a reaſonable moiſt ground, for neither the ground that is much drie, nor that which is much ſubiect to water, is good for gardens. Notwithſtanding if the groundes belonging to the farme happen not to haue this commoditie of idle and vnimploied ground to make gardens, you muſt remedie that ſore as well as poſſiblie you may. The clayie, ſtiffe, and ſandy places muſt be amended by dung and marle, and would be caſt three foote deepe. The watrie place ſhall be made better, if there be mixt with it ſome ſandie or grauelly ground, and therewith caſt it rounde about with ditches, thereby to draine and draw out the water annoying the garden. And thus the good husband ſhall doe his indeuour to amend and make in ſome ſort his ground more fruitfull. Let the dung which he laieth vpon it be either of ſheepe or of ſwine, or of horſe, or pigeons, or aſſes, according as the nature of the grounde ſhall require: and the elder it is, the better alſo, in as much as in time it looſeth his filthie ſtinke and whatſoeuer other euill qualitie, and getteth a new kinde of rottennes which is more ſoft and more eaſie to be conuerted into the ſubſtance of the earth, whereby good earth is made better, and the naughtie amended. This is the cauſe why ſuch as haue written of husbandrie in Latine haue called dung, *Lætamen*, & French men, *Latiere*, becauſe it maketh the ground merrie, ſuppoſed when it is once mingled and incorporated with the ſame. For dung that is pure and of it ſelfe muſt not be laid vnto the rootes of trees, but firſt (where there is need) of the ſhorteſt earth, and afterward of dung.

Hedges. The hedge of quickſet parting the kitchin garden, and that other for delight would be planted and furniſhed with the plants before ſpoken of, in the moneth of Nouember and in the beginning of October, planting there alſo at the ende of euerie eight feete, ſome elms, wilde plumb-trees, and cherrie-trees, by the ſupport whereof as of faithfull props and ſtaies, it wil winde & binde it ſelfe more firmely.

This

This hedge shall be verie well digged and helped with dung for a foot depth, cut neere vnto the roote some two yeeres after, and pruned euerie yeere to keepe it round and euen, as also to make it growe thicke, and you must suffer to grow in hight and thicknes such trees as shall be planted therein to serue for stakes and as poles for your arbours, and the moe elmes you can put in this yout hedge, and the rest which shall part your garden of huswifrie and pulse, the better it will be; either for the making of fagots euery yeere, and that so they may themselues spread more in thicknes, as also for timber wood for your ploughes, and other implements: as also that they may ouergrow such arbours as you shal plant at their feet, and wherewither they doe in that place mutually and naturally beare and suffer.

If furthermore you would know the ordering of such great and small trees, as whereof the hedge is to consist, you shall finde it in the third and sixth booke.

The second Chapter.

Of the arbours of the kitchin garden.

EVen as the garden of pleasure is to be set about with arbours, couered with Iesamin, Maries seale, muske roses, mirtle trees, baie trees, and other rare things: euen so shall the kitchen garden be set with turrets of lattise fashion, couered ouer with *Burdeaux* vines, or with the best sets of vines that are to be got in the countrie, for to make veriuice on for prouision and commoditie of the houshold.

The fashion of an arbour.

The fashion of the arbour shall be in manner of a shadowie place, (for arbours are costly to maintaine) to the end you may drawe certaine beds vnderneath, or some floore of herbes, which craue no great cherishing and refreshing, leauing notwithstanding an alley of three foote bredth, both on the one side and on the other, for the dispatching of such worke as is to be bestowed vpon the arbour. And you must plant the best and greatest sets of vines vpon the south side, not cutting them so long as the wood may grow thicker: for it is nothing but a good foote and a thicke that maketh a faire and a beautifull fruite. The lattise worke may not be too thicke set or wrought: and it must rise and growe higher for the space of fiue whole yeeres, and be renued and newe tied, euery yeere about the ende of the moneth of Ianuarie with the twigs of your willowes, and oziers, or of the broome of your warrein: although if you make your poles of iuniper wood, you shall not neede to trouble your hand with them for tenne or twelue yeeres, especially if you strengthen your poles with pyles of oake halfe burnt. Tie not the poles of your lattise worke straite, nor the stocks against the trees of your hedge which shall serue

The binding of the arbour.

for

for ſtakes, for ſo in time the band would eate it ſelfe into the rinde, as they ſhould grow thicker, and do them great harme. And I would not haue you to forget to dung and vn couer the rootes of your ſtockes in winter, and to marke the yoong woode for to make ſets to ſell, or to ſtore your ſelfe withall euery day more and more: gather not their grapes very ripe or very greene, nor yet when it raineth. Finally, the ordring of the arbour is like the ordring of the vine, and would be but a ſuperfluous thing to ſtand any longer vpon in this place. Wherefore you muſt haue recourſe to the place, ſetting downe the manner of the ordering of the vine, as it ſhall be heereafter declared.

The worke of the arbour and of the vine is alike.

The third Chapter.

Of the digging and caſting of the kitchen garden.

AS concerning the dreſſing of the kitchin or houſhold garden, in as much as there are two ſeaſons in the yeere for to ſow herbes, ſo there are two times for to bring into order and dreſſe gardens, that is to ſay, Autumne, and the ſpring: there muſt ſuch conſideration be had as that the firſt workemanſhip and tilth be beſtowed about the beginning of Nouember vpon that grounde, which we intend to ſow in the ſpring, and to digge in the moneth of Maie ſuch other grounds as we intend to ſow in Autumne, to the intent that by the cold of winter, or by the heate of ſommer, the clods may be apt to turne to duſt becomming ſhort and brittle, and all vnprofitable weeds may be killed. But in the meane time before this firſt tilth and workemanſhip, it will be good that the ground for one whole or halfe yeere be manured with old manure and made good and fat: for the beſt liking earth that is in time becommeth leane, and waſted by long and continuall occupation. Wherefore it behoueth that the vnimploied or fallow ground, which you ſhall appoint for your gardens, be firſt well cleanſed from ſtones, and afterward caſt vp and digged into new and freſh earth, and the bad weedes rooted out, euen by the end of the rootes; whereof the good huſwife ſhall make good aſhes: and afterward amended with ſome ſmall quantitie of cowes dung and horſe dung well mixt together, and well rotted, and hauing laid a long time; or elſe of aſſes dung, which is the beſt of all for gardens, becauſe the aſſe doth chaw his meat with leiſure and breaketh his meat thoroughly, and ſo by that meanes doth make his dung better digeſted, and better ground then other beaſts doe, and which alſo for that cauſe doth beget almoſt no weedes. In ſteed of dung the chaffe and troden ſtraw of corne hauing rotted in the high waies for the ſpace of a yeere may ſerue, which being by nature verie hot doth ſo greatly fat the earth, as that the herbes, trees, citrons, limons, oranges, cucumbers

All manner of ground by being long ſowne doth grow leane.

bers, citruls, and all other plants planted in that ground or sowen doe come vp very faire, and beare fruite very quickly and in great abundance. For the second tilth it shall be wrought and laboured as a man would worke mortar from the one end to the other, and in thus labouring it, you shall mix the dung or marle very well with the earth. For the third tilth it shall be clotted, laid close, and raked into a flat forme, and with the backe of the rake in going ouer it you shall marke out your beds and floores, and the pathes running along betwixt them, and those so long and so broad as you can make them, according to the contents and largenesse of the place. And you must obserue that you make your floores of such wideneſſe as that you may stride and reach your armes from one side to another according to that their said breadth, to the end that such as are to weede them or to rake them, may from out of the saide little pathes be able to reach into the midst of the bed, and not to tread with their feet vpon that which is or shall be sowen. Wherefore if your said little pathes be two foote wide, it will be inough: for to make them any broader is but waste and losse of ground.

The fourth Chapter.

Of the disposing or appointing of the floores of the kitchin garden.

Little turneps or nauets. Coleworts. Great turneps of both sorts. Spinach. Leekes. and cynes. Onions. Chibouls. Carrets.

YOV shall dispose of your beds in such sort as that they may be in the middest of your garden, giuing and allowing vnto your turneps the largest roome, and next to them the coleworts: and vnto them you shall ioine the space for great turneps of both sorts, and that of so much ground as would make two of the former: after these floores, you shall make a path of three foot breadth, after which yon shall prepare other floores by themselues, for spinach, beetes, arrach, rocket, parsley, and sorrell. Againe you shall make an other pathe of other three feete: and on the further side you shall quarter out a bed for leekes and cines, and ioint thereunto two other for onions and chiboles, and for garlicke, scallions, and carrets. By the side of these floores you shall make out a pathe of three feete and a halfe, and after it you shall make many floores for slips to be set vpon, as well for the maintaining of a plat for sweet flowers, as also for your borders: and yet further for your winter pothetbes. And it will be good to this end to prepare a bed for sage, & an other for hyssop; one for thyme, and an other for marierom, and an other for lauander, and an other for rosemarie, and an other for soothernwood, and an other for small cypres: againe, one for sauorie, for hyssop, costmarie, basill, spike, baulme, pennyroyall and one of cammomill for to make seats and a labyrinth.

Sage and hyssope.

A labyrinth.

It shall be good also for necessitie sake (for it concerneth the

good

good huſwife to know manie remedies for diſeaſes, and you muſt not doubt but that I my ſelfe haue learned many remedies from the experiments and obſeruation of thoſe ſorts of women to ſhape out below or in the further end of the kitchin garden neer to the incloſed ground for fruits, certaine beds for Phyſicke herbes, as for valerian, milfoyle, aſparagus, mugwoort, aſarum bacchar, houſleeke, patience, mercurie, pellitorie, nicotiana, and other ſuch like, whereof we will make ſome ſhort mention hereafter.

The fifth Chapter.

Of the ſituation of the beds of the kitchin garden.

IN ſuch place as the ſunne ſhineth vpon at noone, you ſhall prouide your beds ſomewhat raiſed, and well mingled with earth and horſe dung, and you ſhall let them reſt ſometime before they be ſowne. In one of which floores you ſhall ſow in the increaſe of the moone of March, your ſeede of lettuſe and purſlaine (for they will be growne as ſoone being ſowed in March as in Aprill) for to ſet them againe in their floores, when they be ſprung vp halfe a finger. In this ſame bed you may put the ſeede of pimpernell, harts horne, prickmadame, and ſorrell of England, and other ſortes for ſalades: all thicke and hande ouer head one among another, to ſeparate and ſet at large by themſelues when they be growne. Looke very well to your ſeeds, that they be not too old, that they be winnowed and cleane, that they be moiſt and oilie but not mouldie; and by the edges of this bed, the breadth of two hands, you ſhall ſowe artichokes. You ſhall alſo make a bed for fine herbs, which in winter ſerue for the pot being kept dry, & for ſlips for the garden of flowers, as are garden balme, baſil, coſtmarie, thyme, hyſſope, ſauorie, marierome and ſage. Againe it will be good to make one to ſowe the ſeedes and kernels of citrons, orenges, limons, pomegranats, mirtle trees, bay trees, and date trees in; and ſeeing they are hard to grow in this countrie, becauſe it yeeldeth no aire either from the ſea or fit for them, it muſt be well and aduiſedly conſidered that in planting or ſowing of them, you ſet the ſmaller end vpward, and that they be not tumbled on the ſide: and when the citrons and ſuch like ſeedes ſhall be growne vp and ſprung, you muſt tranſplant and remoue them into ſome caske, or ſuch like thing that may be remoued hither and thither, to the end to keepe them from very much heate and exceſſiue colde, and to couer and vſe them daintily according to the times, and as ſhall be ſaid hereafter. In another bed which ſhall be a very long one, and toward the quickſet hedge and the arbours, you ſhall ſowe cucumbers, citruls, long and round gourdes. In a plot long and narrow like the former (becauſe they muſt be oft watred

Lettuſe-ſeede.

To chuſe ſeedes.

Fine herbs.

Seedes that will hardlie grow.

Cucumbers and citruls.

tried and water powred at their rootes) you may sowe melons of diuers sortes.

And for feare of flying fowle and birdes, cast thornes very thicke vpon your beds; and, if they be sowen in the increase of the moone in Februarie, for to haue them the sooner to grow, yea though it be in March, yet spread vpon the thornes strawe, and that such as is bright, and let it be thicke, that so it may the better defend them from the danger of the frostes, which if you perceiue to be great, as it falleth out some yeeres, spread ouer them in stead of straw old or whole mats, and yet in such manner, as that they may not lie pressing of the earth, thereby to oppresse and keepe downe that which would spring and growe vp. And what you would haue to continue still vpon their first beds, as the cucumber, melon and other fruites, make some small separation betwixt them and the other, and water them oft with water warmed in the sunne, and drawne a long time before, hauing stood in the trough or caske placed neere vnto the well: notwithstanding all herbes and fruites reaped from out of this garden are much better by remouing: in doing whereof they are also not onely more freely bestowed, but become of a better taste and verdure.

The sixth Chapter.

Of the time of sowing the kitching garden.

The power of the increase of the moone.

ALl seedes which are for the store of the kitchin garden, must be sowne and remoued in the increase of the moone, as namely from the first day vnto the sixth: for those that are sowen in the decrease, they either come vp slowly, or else they bee nothing worth: besides that, although you sow in the increase of the moone, it some time falleth out, that notwithstanding your seede be fat, full, make a white flower, and be nothing corrupted or hurt, yet some euill constellation (which the gardiners doe call the course of the heauens) doe hinder them that they profit not, nor yet thriue any thing at all. Although that *Palladius* the husbandman say, that the earth which hath the fauour and benefit of a sweete and milde aire, and is watered with some running streame; is in all pointes and respectes free & not tied or bound to any lawes of sowing: but he cannot deny that whatsoeuer groweth, whether it be plant or seede, hath two ends, that is to say, the root which hath altogether to do with the earth; and the branches or vppermost part thereof, which hath altogether to doe with the aire and the heauens: and that the obseruations drawne from superior bodies, as from the proceeding & disposition of the moone, doe shew and proue the ouerthwarts & crosse incombrances wrought against the creatures of the earth both in their putting foorth of the earth and drawing to stalke, as also in the gouernment of them afterward.

In

In moist places and such as are serued with some small currant of water, it is best to sow in the spring: for then the mildnes and gentlenes of the yeere following, doth intertaine in verie good sort the growing seedes; and the drinesse of the sommer cannot hurt them, because of the water prest and at hand. But when as the situation of the place hath no naturall supplie of running water, or else such as is very hardly come by in respect of the bringing thither: there is no other refuge but the reseruing of the winter raine, wherefore in such places it is more sure to sowe in autumne; and yet one may well sowe there in the spring, so that you cast your earth three foote deepe. *To sow seedes in the spring.*

If a man be disposed to sow seedes in sommer, it must be in the increase of the moone of Iuly and August: and in autumne in the increase of the moone of September and October: as also for the spring, in Februarie and in March. In places naturally cold, or which receiue no great heate from the sunne beames, the sowing in the spring time must be toward the latter end thereof; and that in autumne, must be hastened and earlie performed. On the contrary, the sowing of seeds in the Spring time in a hot place must be earlie performed: and the sowing or seed-time of Autumne must be somewhat deferred. Seeds doe grow the better when they be sowen vpon warme dayes, or dayes that are neither hot nor colde; than and if they be sowen vpon hot, cold, or drie dayes. The seed that is to be sowen must not be aboue a yeere old, otherwise if they be very old, drie, wrinkled, leane, soft, false or vntimely gathered, they will neuer grow nor thriue. Wherefore by how much the newer the seedes of cucumbers, melons, leekes and gourdes be; so much the sooner they grow: on the contrary, by how much the elder the seedes of parslie, beets, organie, cresses, and coriander be; so much the more hastily doe they put out of the earth, supposed alwaies that age hath not corrupted them. Colewoorts and spinach of all sorts, white succorie, garlicke, leekes and onions are sowen in Autumne, and liue all Winter. Colewoorts, rocket, cresses, coriander, cheruill, nauets, turneps, radishes, parsneps, carrets, parslie, fennell, and other herbs, whose roots are good in pottage, are sowen in Autumne and in the Spring, notwithstanding they grow better being sowen in Iulie in hot countries, and in August in countries indifferent hot, and in September in cold countries. Lettuse, sorrell, purslaine, cucumbers, gourds, sauorie, harts-horne, trickmadame, beets and other tender herbs, as also artichocks are sowen in the Spring, and for the most part also those of March and Aprill grow more early than those of Februarie, according to the diuersitie of the time. *To sow seedes in sommer. At what time seede must be sowne in cold and hot places.* *The age of seedes.*

Aboue all, the seeds which are to be sowen, must be well conditioned, ful, heauy, corpulēt, grosse, hauing a good colour, yeelding a white flower when they be broken, not dusty: for dust falling frō them when they be broken, sheweth that they are corrupted and nothing worth.

The seuenth Chapter.

Within what space seedes are wont to grow, after they be sowne.

NOtwithstanding that the nature of the ground, the mildnesse of the aire, fauourable furtherance of the heauens, and the age of the seede, doe cause seedes to hasten the more or to be the slower in springing out of the bosome of their mother and nurse the earth: (for as much as that which is sowne in faire weather and an open aire, in a hot place, and open vpon the sunne, and of new seed doth shewe it selfe sooner, than that which is sowen in a contrary time and place) yet euery seede hath a certaine time to manifest it selfe in, whereto we must haue due regard, to the end that there may be prefixed times to sow, & looke for the growth of euery seed; spinach, basill, nauets, and rocket, grow within three daies after they be sowen, lettuce the fourth day, cucumbers and citruls the fifth, purcelaine a little later, annise the fourth, cresses and mustardseed the fifth, beetes in sommer on the sixth, and in winter on the tenth, arach the eight, colewoorts the tenth, leekes the nineteenth, or ofter the twentith, coriander about the fiue and twentith, or else more late if the seede be new, organie and sauorie after the thirtith: parslie in the fortieth for the most part, and oftentimes in the fiftith. It is true that in this place the age of the seed and state of the aire when the gardner doth sow them is of great moment, for (as I haue said) the leeke, cowcumber and citrull, grow sooner if the seede be new: and on the contrary, parsly, spinach, organie, sauorie, coriander, and cresses, when their seede is solde: likewise the seede of cowcumbers steept in milke or in warme water putteth the sooner out of the earth: after the same sort you may make reckoning of artichokes, and many other herbes, as you shall know heereafter in their particular treatises.

The eight Chapter.

Of watering, weeding, sweeping, and cutting of pot-herbes.

Watring.

SO soone as the ground is full of seedes in all places, you must be carefull to water it, if by happe the place be drie of his owne nature, that so the seede may not be hindred of his sprouting by the too much drinesse, or that the herbe already sprung may not die. The best water to water the pot-hearbs withall is raine water, if it fall in the night, or in such a time as that it may not heat the herbes: for it washeth and clenseth them from the dust and vermine that eateth them, especially if the raine come driuing with a northren winde: for want

What water is good for seedes.

of

of this, the riuer or brooke water is best next, being a little warme: in place of this, well water drawne in the morning and put in a barrell, or in some other thing of receit, that so it may take the heat of the sunne beames, may serue. For cold and salt water is enemie to all sorts of herbs, although that *Theophrastus* say that salt water is more conuenient then any other to water certain plants. The time to water them, is the euening and morning, not the midday, for feare that the water heated by the heate of the sunne might burne them at the roote. *What time is good to water.*

After that the herbes haue begun to put foorth, you must weed the bad from the good, whose nourishment they would consume and ouershadow them withall: this must be done with a forked trowel whiles they be very small, and with the hand (which gardiners call by the name of making cleane) when the potherbes are growne strong and great. Some do also weede them thus, aswell for the weight of the earth, and heatie falling of the water vpon them, as also because of the trampling of folkes feete, whereby the earth becommeth harde. Wherefore if the earth be soft, you neede not to rake it but verie sleightly. And you must know that weeding is necessarie for gardens at all times. *Weeding and raking.*

Cutting of herbes is also profitable for them, at what time as they be somwhat growne, thereby to make them to keepe their greenenesse the longer, and to make them the more beautifull and tufted, to keepe them from seeding, as also to giue them somewhat a more pleasant smell then they had in their first stalke. By this meanes lettuses and coleworts are made better, and of a more pleasant taste, if their first leaues be pluckt from them: in like manner turneps, and nauets grow more beautifull and tufted if their leaues be cut. But all herbes must not be cut at all times, for such as haue a hollow stalke, as onions, and others, if they be cut when it raineth, the blade or stalke of the onion is filled full of water and rotteth: and this is the cause why herbes of such nature are not to be cut but in a faire and dry time. *Clipping or cutting of herbes.*

The ninth Chapter.

Of setting and remouing of potherbes.

TO giue the greater scope and libertie to herbes, and to make them greater, men vse to remoue them: and this is done either by remouing of them from one bed to another, or from one floore to another, when they haue fower or fiue leaues out of the ground, and this may be done at any time, but specially see that the season be inclining to moistnes and raine: and they must be set in ground that is well furnished with fat, without any amending of it with dung. If the time fall not out rainie, you must water them after they be new set in good and due time, not staying too long, and from

some of them you must cut off the ends of their rootes, and set them thinne, that so they may be wet and haue their earth lightned when need requireth, and that thereby they may grow better and fairer.

Slips. Slips for the garden of sweete and fragrant herbes, are gathered at all times, and they would be of yoong sprigs of a yeere old, taking part of the old wood, and writhing that to put it into the earth: or else cleauing it below, and putting in the cleft an oate, and round about it some other graines of oates rather then dung, for herbes that are remooued do not require dung at their roots, but rather they haue need that the lowest parts of their rootes should be a little steeped in water, as I will shew heereafter.

The tenth Chapter.

Of gathering and keeping the seedes, rootes, and flowers of potherbes.

Gathering. ROotes for the most part are gathered when the leaues are fallen off: and in like sort are the flowers gathered, as borage, bugloss, all-good, and marigolds when they are throughly open: notwithstanding the flowers of roses and capers, must bee gathered to be kept, while they be shut: likewise the leaues and whole herbes are gathered when they are growen to the full: fruits, as melons, cowcumbers, citruls, and gourds, when they turne yellow and are growne to their perfection. If they be purposed to be made serue for seede, then they must be let alone longer, and afterward kept in conuenient place vntill it be time to sow them, and they must be gathered in a bright weather, and in the decrease of the moone. Seedes are gathered when the herbe is all laide and drie. And it must generally be obserued in all manner of gathering, as wel of herbes, flowers, rootes, as of fruits and seedes, that it be done in a faire and cleare weather, and in the decrease of the moone.

The time to gather seedes.

The waie to keepe hearbes. Such herbes as are to be kept, must first be made very cleane, and dried in the shadow, which is the best meanes to keepe them the strongest in their vertues and qualities: or else in the sunne, and after to put them vp in bags of leather, not of wouen stuffe, nor in wooden boxes, that so they may not loose their vertue, as we see it put in practise by fine herbes which are kept to be vsed in winter. Wherefore me thinkes that the apothecaries faile much in their dooings, which hange their Physicke herbes in the roofe of their house, for by this meanes they do not onely spend their force, but become laden with dust, cobwebs, the dung of flies, and a thousand other filthie things.

The waie to keepe flowers. Flowers must not be dried in the sunne, nor in the shadowe that is made by the South sun, nor yet in any high roome, because of their tendernes, and delicatenes, which would cause their force to vanish away,

away, either in the burning heat of the Sunne, or in the more moderate heat of the very aire. If it be not the Prouence rose, which that it may be kept long, requireth to be dried in an high place, open to the South sunne, where the beames of the sunne do enter, but touch not the roses. The best way to drie flowers will be in a temperate place, and to turne them oft, to the end that they may not corrupt, hauing also this continuall care, that they may neither lose their colour nor their smell. And when they are dried they must be put into an earthen vessell. *To keepe Prouence roses.*

Seeds must be kept in bagges or vessels of earth which haue narrow mouthes: or in boxes, or else in bottles of the rindes of gourds well stopt and set in very dry places, and where there is no water shed; for seeds do mightily spoile with moisture. The seeds of chibols, onions, and leeks, as also of poppie, are kept in their rindes or heads. *To keepe seeds.*

For to keepe roots you must obserue two wayes: for either they are to be kept new, and as they are yet greene, as nauets, turneps, carets, and such like: or else they are to be kept dry. For to keepe them new, you must lay them vpon sand or grauell very thin, in some place vnder the earth, and a little couered, or else to burie them vnder the earth in the garden, as we see it done in turneps and nauets, to keepe them the greatest part of Winter. To keepe roots drie, after they be gathered, you must wash them diligently with cleere water, and after take from them all the small fibres or hairie threeds that hang about them, and then to drie them either in the shadow of the Sunne-rising, if they be but small and thin, as are the roots of fennell, succorie, parsley, sperage, and such like: or in the South-sunne, if they be grosse and thicke, as those of daffodils, gentian, sowbread, water-lilly, brionie, and such like. After that they are dried and thus prepared, you must hang them in some high and vpper roome, open vpon the Sunne when it is in the South, or els vpon the North quarter; and in which notwithstanding neither the smoake, nor dust, nor Sunne-beames may any thing hurt them, notwithstanding that the counsell of *Hippocrates*, the Prince of Physitians, is, that herbes, flowers, and roots, aswell greene as drie, should not be put to keepe in any place where the winde should come, but rather shut vp in vessels or some other such like meanes of keeping of them, to the end that they should not lose their force, which indeed they might most easily lose being kept open and subiect to the winde. *To keepe roots.*

The eleuenth Chapter.

Potherbs, and particularly of Colewoorts.

THE first that we are to speake of is Colewoorts, both because they are most common, and also most abundant of all other sorts of herbs: all kinds of colewoorts do loue a cleane ground,

fat and well tilled, not consisting of clay or sand. And although they grow indifferently in any aire, but especially in a temperate: yet they become greater and more massie, sound and safe from vermin in cold places, as are those in *Germanie*, than in hot places, and for that cause they delight a great deale more in the toppes of hilles then in plaine grounds; and yet in those plaine grounds more in the raised parts of borders then in the flat and middle parts thereof, and they be more pleasant, more wholesome for the stomacke, and better in Autumne, Spring-time, and during great frosts, than they be in Summer. They craue much dung, and that especially which is of asses, as being the best of all other for them: and to be raked in and couered ouer with good earth: not to be watered in any case: notwithstanding that watering doeth make them looke faire and flourishing, but then not so sweete to the taste nor so wholesome for the stomacke. When they haue got sixe leaues vpon their stalkes, you must remooue them, but let it be in a milde and calme time whether Winter or Summer. And

Common colewoorts. to speake particularly the common colewoorts, called long or greene colewoorts, must be sowen in mid August or September, if you desire to haue the leaues in Lent and in Winter. Some plant them in October, and remooue them in December, to haue the leaues in Winter, and the seed in Iune and Iuly, and that to make them the more tuffed, though there may be as much accomplished that way at other times of the yeere: but not so commodiously.

The seed too old. Prouerbe. And looke well to it, that your seed be not too olde, for if it be three yeeres olde, it will bring foorth radishes. And that is the cause why some say: Sowe colewoorts, and there will grow vp radishes or nauets: notwithstanding it continueth sixe yeeres in his nature, if it be well kept.

Cabage-cole. Cabage-colewoort, which are called white or apple colewoorts, are sowen vpon beds, and remooued to stand a foot one from another, well couered at the roote with a free and enriched earth, when they begin to rise vp into a great stemme; and loue the cold aire: for in a hot aire they can not liue: and you must couer them with straw to

The curled cole. make them cabage the better, and become the whiter. The curled and Romane colewoorts being more tender by nature, are sowen in March, and are planted farre within the yeere, and couet to be oft watered.

When you see the leaues of colewoorts waxe bleake and pale, or yellow, it is a signe that it needeth water: and you must often times take from them their yellow leaues, as also those which are eaten thorow or rotten, or dried; for this would make them die.

Colewoorts of a good taste. If you would haue colewoorts of a good taste and pleasant, take away their first leaues; for those which come after will haue a better taste and more pleasant sauour than the first.

Red

Red colewoorts.

Red colewoorts grow naturally of the abundance of dung, or for that they are watered with the lees of wine : or by being planted in a place where they are heated continually with the heat and burning of the sunne.

Doe not at any time gather, or at the least vse the toppes and edges of the curled Romane colewoort, neither yet of any other, but the rest of the leafe downe toward the stalke.

The planting of colewoortes.

All sorts of colewoortes may be planted at all times, prouided it be not too hot or too colde : and when you plant them, breake their roote, for feare it be not doubled againe or turned vpside down in the earth, and that you put it not so farre in, as that there be nothing of the toppe left aboue.

The watering of colewoorts.

Some men vse to water colewoorts with salt water to make them the more tender : and some do cast and sowe saltpeter amongst them vpon the vpper face of the earth : or else small ashes sifted to keepe them from locusts, palmar wormes, caterpillars, and other vermine.

The enmity betwixt wine, the vine, and the colewoort.

Aboue all things the colewoort may not be planted neere vnto the vine, nor the vine neere vnto the colewoort : for there is such great enmity betwixt these two plants, that being both of them planted in one ground, after they become to some growth, they turne and grow one from another, neither will they prosper and beare fruit so well. And admit it to be true which is reported : namely, that if a man doe mingle wine, be it neuer so little, in the pot where colewoorts are boiling, that then the colewoorts will leaue boiling by and by and not boile any more, but loose their colour. Likewise such as are disposed to drinke much wine and not to be drunke with it, must eat some raw colewoorts aforehand, as the *Almaignes* are woont to doe, when they meane to quaffe you off a whole pot together, and to ouercome such as with whom they striue in drinking.

Colewoorts do keepe one from being drunke.

Colewoorts enemie vnto organie and rue.

The colewoorts also may not be planted neere vnto organy, rue, and sowbread : for being set or sowen neere vnto these herbes it thriueth not at all, and againe it infecteth his neighbours with some of his ill qualities.

Rotten colewoortes.

The carefull gardener must neuer abide to haue in his garden so much as one rotten cole, nor yet water his herbes with the water wherein colewoorts haue beene steept or boiled : for both the one and the other doth cause his neighbour herbes to haue an ill taste and sauour.

The vertues of colewoorts.

A good huswife will haue colewoorts in her garden at all times, for the reliefe of her family : for besides foode, she may comfort her people with them in the time of sickneſſe. As thus: The first decoction especially of red colewoorts with butter or oile without salt, doth loosen the bellie, ripen the cough, and maketh the voice better : and if vnto this broath you put some sugar, it will be singular for such as are short winded : the iuice also of colewoorts is good for these diseases if

you put ſugar to it: the ſeede of colewoortes in broath or in powder, is good againſt the wormes of little children: colewoorts boiled in two or three waters doe ſtay the laske: colewoorts boiled and ſprinckled with long pepper and eaten with the broth, cauſeth great ſtore of milke in nurſes: the iuice of colewoorts drunke, doth expell and kill the poiſon of toad-ſtooles: the pith of the colewoort boyled with fat and ſcummed hony, is ſingular for ſuch as are ſhort breathed to vſe in maner of a lotion. To be ſhort, the colewoort is good for all things, whereof the Romanes when time was, made ſuch account, as that hauing expelled all other Phyſicke out of *Rome* for the ſpace of an hundred and fifty yeares, they vſed no other Phyſicke but colewoorts in all manner of diſeaſes. The lee made with the aſhes of colewoorts is good to waſh the head. The breaſts fomented with the decoction of colewoorts increaſeth the milke of nurſes. The aſhes of colewoortes mixt with the white of an egge doth heale burnings. Cataplaſmes made of boiled colewoorts and mingled with the lees of vineger, two yolkes of raw egs, and a little cleere vineger of roſes, all well beaten and mingled together, is a ſingular medicine preſently to take away the paines comming of rheume.

To ſcoure veſſels.

There is nothing better to make cleane a pot all ouergrowne with fowlnes (wherein fleſh hath beene accuſtomed to be boiled and water to be heated, as chafer, iron pot, braſſe pot, or ſuch like, and which cannot by any other meanes be ſufficiently ſcoured) than to boile colewoorts in it.

The twelfth Chapter.

Of Lettuſe.

THe lettuſe is ſowne thicke as the colewoort, in a moiſt ground, well dunged, fat, light, and eaſie to turne ouer, it muſt be ſpecially in March: for it cannot well endure much heat, or much cold. Notwithſtanding if you will ſow it in September, yea at all times make choiſe of ſunnie and warme places, and ſuch as are well ſtored of dung well rotted, notwithſtanding that it will waxe hard with winter, and may continue ſome time being planted againe. It muſt be watered once in euery two or three daies if the weather be not dropping & moiſt. And in the ſowing of it you muſt water it for feare that the heate of the dung ſhould caſt out the ſeede: it putteth forth of the earth the fiftith day after it is ſowen. Being growne aboue the bed, the height of fower or fiue leaues, you muſt gather it with your hand (but neuer with any rake) and ſet it againe in a fat ground, and a good diſtance one from another, and couer the rootes and ſhankes, with cowes, goates, or ſheepes dung, for ſo they will be of a better taſte, and water them at the foote, but it muſt not be when it is either very hot or very cold.

Some

Some do nouriſh fowre ſorts of lettuſes heere with vs in France, not differing one from another in vertue, but in taſt ſomewhat more or leſſe pleaſant, that is to ſay, the curled; the headed, cabbaged or white; the common, and the little ſmall lettuſe: Men vſe not to plant the ſmall or common lettuſe, but the great one, which will be curled, and that which will cabage, otherwiſe called the Romane lettuſe, which hath a white ſeede, and a greater than the other, and is of a ſweeter reliſh, eſpecially if his firſt ſtalke be cut away which it putteth foorth after it hath beene planted the ſecond time, for the firſt ſtalke having in it very much milke, doth eaſily become bitter by the heate of the ſunne. If you deſire that it ſhould haue great leaues, when as it beginneth to put foorth a ſtalke, cut off the ſame in the halfe, then put vpon it a clod of earth, or ſome ſmall tile. If you couet to haue it faire and white, bind together the tops of it two daies before you take it from the firſt bed and ſet it in another place, and ſprinkle it ouer with ſand.

The curled and cabbaged lettuſe.

The Romane lettuſe.

White lettuſe.

The cabbaged lettuſe being leaued and curled, and not growing higher than a hand for the moſt part, is made by being troden downe. After that it is planted the ſecond time, put vnto the roote ſome cowes dung that is very new, afterward tread it downe againe, and water it, and when it beginneth to gather ſtrength and grow, cleaue the branch which it putteth foorth, and couer it with a new earthen pot in ſuch ſort, as that the top thereof by it may be beaten and kept downe; and by this meanes it will become tufted, cabbaged and white: or elſe if you would haue beautifull and faire lettuſes, two daies before you take them vp by the rootes, you muſt tie together the tops of them, and then couer them with earth vp to the very ſaid tops ſo tied: for ſo they will become white and faire. In like maner ſand caſt vpon them maketh them to become white. If you feare that it will not grow hard enough by reaſon of ſome fault in the place, or in the time, or ſeed, take it vp and ſet it in ſome other place.

Cabaged lettuſe

White and faire lettuſes.

To cauſe lettuſes to haue a ſweet ſmell more than ordinary, ſow them with the kernels of citrons, or elſe ſteepe the ſeedes in damaske or other ſweet water, three whole daies together.

To cauſe lettuſe to ſmell well.

To mingle lettuſe with other ſalade herbs, as rocket, ſorrell, & ſuch like, & that in ſuch ſort, as that they may all grow vp together frō one & the ſame root, put all your ſorts of ſeeds into a ſheeps trottle, made good & hollow for the purpoſe; afterward ſet it very deep, as namely about the depth of eighteen inches in the ground, & water it oft, & by little and little, and haue great care and regard vnto it when it putteth foorth of the earth. Others do crumble & break three or fowre trotles of a goate or ſheepe, and put the ſeeds in the midſt thereof, and then couer them with a linnen cloth faſt bound in maner of a knot, and do plant them as it were in the vppermoſt part of the earth, very diligently

Salade herbes mixt together.

gently regarding and looking to them when they come vp. Some plucke away the leaues of the lettuse, which are next vnto the roots, and in steede of the leaues so pluckt away, they put one graine or seed of rocket, cresses, or sorrell, and other such like, by which meanes there grow many and diuers sorts of branches.

The vertues of the lettuse.

The lettuse is not without good Physicke helps, for it cooleth the hart, looseth the bellie, causeth abundance of good bloud. The iuice thereof mixt with oile of roses, asswageth the paine of the head, and causeth the sicke of agues to sleep being rubbed vpon the browes and temples: it serueth for a gargarisme with the iuice of pomegranates, for the inflammation of the throate: being rubbed vpon the cods it stayeth the night pollutions or gonorrhæa, especially if thereunto be added a little camphire: the seede thereof beaten with the seed of white poppie in forme of a milke or extract doth effect the same, and also cureth the scalding and burning of the vrine: the seed thereof steept in water, wherein hath been quenched steele, with some small quantity of iuorie powdred, is very soueraigne against the white flowres of women. The leaues of lettuse boiled and moistned in broth, or salades of them in like manner after supper, doth prouoke sleepe: the seede thereof powdered, and mixt with the milke of a woman, that hath brought foorth a daughter, and the white of an eg, serueth to make a frontale for the very same purpose. The decoction of the leaues of lettuse boiled in barly water and drunke, causeth great quantity of milke in nurses, if afterwards the dugs be well rubbed with the hand: such as haue a short breath, spit bloud, or haue weake lungs, as also such as desire children, must not eat lettuses.

The thirteenth Chapter.

Of Endiue, Sowthistle, and Succorie.

Endiue.

ENdiue hauing narrow leaues (otherwise called Scariole, or sowre, or wild lettuse, and of the Latines *Intybus* or *Seris*) is more seruiceable in physicke than any other waies, and is not planted in gardens, because it is alwaies bitter, notwithstanding that it be of the sorts of lettuse, or rather of succorie. It is true, that in often planting and transplanting of it, and in remooving it from one place to another, and by binding and couering of it with sand during the winter time, the nature thereof may be changed and become tender and white, and without any great paines to the gardener may be kept all winter: which thing our gardiners haue practised, seeing by experience that wilde succorie becommeth faire and flourishing after it hath beene ouerflowen with water, and couered with sande or earth.

Sowthistle.

Sowthistle, called in Latine *Sonchus*, or *Cicerbita*, was of old time in

in request for salades, but now there is no such account made thereof, saue onely that it is vsed for to feed conies and hares : in like sort it is not planted in gardens, because it groweth plentifully amongst the vines : notwithstanding the Italians doe vse the roots of it in salades in Winter, finding them sweete and of a pleasant taste : his stalke is full of milke, sometimes drawing neere vnto a yellow : this milke taken in drinke, is singular for them which haue a short breath, and are stopt in their lungs : it asswageth the paines of the eares, if you droppe certaine drops thereof into them, especially if you cause it to boile with some oile in the rinde of a pomegranate : it healeth thorowly the strangurie and paines in making water, if it be drunke to the quantitie of a pottle. The leaues of sowthistle chawed, do take away the stinking of the mouth.

Succorie.

Succorie is of the nature of endiue, hauing large leaues, and without husbanding and good handling doth alwaies continue bitter. It loueth a moist place, and well laboured ground. When it hath put foorth foure leaues, you must translate it to a well dunged soile. And to the end it may haue faire, large, and well-spread leaues, after it beginneth once to come to any growth, in the middest of his leaues you must put some prettie little tile ; for by this meanes it will spread forth his leaues, and will haue them a great deale thicker standing and tufted. By this good husbanding it loseth his bitternesse, and then there is vse to be had of it in salades in Winter, and it is called white succorie ; and to this end it is woont to be planted againe in the end of August : after that in the beginning of September, to the ende that the leaues thereof may be the greater, it must be taken vp without the breaking of any thing, and with a small blade of a straw haue the leaues tied together very easily and gently, without wringing or bruising of them : afterward it must be layed in a well manured soile, the leaues downeward into the ground, and the root vpward toward the top of the earth, and aboue it there must be made something to couer it in manner of a house, vnder which there must straw be cast to keepe it from frost and bad windes: the like is done with endiue, and it is found white when it is pulled vp againe ; and it is very delicate in eating. Some for the same end, when succorie hath put foorth his leaues, tie them all together with a very small threed, and after couer them with a pot of earth, to the end that it may continually draw by his root nourishment out of the earth, and by this meanes it becommeth white and tender, and loseth a great part of his bitternesse.

The vertues of succorie.

Euery man knoweth that the decoction of succorie drunke in manner of an apozeme, is good for them which haue the iaundise or heat of the liuer. The iuice of succorie drunke euery second day fasting, stayeth the spetting of blood. Succorie stamped and put vnder the left dug doth heale the heart-ache. Some say that the decoction of

Spetting of blood.

wilde

wilde ſuccorie often drunke, maketh the viſages and countenances of women more cleere and pleaſant.

The foureteenth Chapter.

Of Artichokes.

THe artichoke plant is a diuers thing from endiue and ſuccorie: for as for artichokes to plant them in Autumne, which is about the moneth of October, they are ſo fruitfull and forward to thriue, as that you neede not to take any more but the great leaues with their branches, of ſuch as bring foorth the faireſt and greateſt fruit, and in like manner of the thicke ſtalkes in the middeſt, ſeruing for no manner of vſe after that the heads of them be gathered: and to plant them againe. Alſo ſome haue otherwiſe vſed to caſt downe the ſaid ſtalks, and bury them a foot deepe in good manured ground, the leaues at the top bound at the end with a little ſtraw, and the ſtalke layed downe and well couered, and they keepe them thus, watering them now and then, if the time be not moiſt enough of it ſelfe, for to make ſhootes and yoong ſets of in Winter or at other times: and ſome there be that pricke the heads in a well manured earth, and being well planted doe couer them in Winter with the chaffe or duſt of line or hempe to keepe them from the froſt, and that in the yeere following they may bring forth new fruit.

To ſow artichokes vpon beds.

Moreouer, the artichoke is ſowen in the increaſe of the moone of March, vpon beds well dunged and fatted, but you muſt not looke to haue any whole and perfect fruit of them, vntill the next yeere after. And, if you would haue the ſeed to thriue, make little ſmall pits vpon your bed a good foot one from another, and halfe a foot deepe, and as much broad, and theſe fill with old dung that is very ſmall, & blacke earth that is very fine, mixt together, and aboue the ſame place pricke or thruſt in the ſeede of your artichoke two inches within the earth, the ſmall end vpward, and putting fiue or ſixe ſeedes in one pit together, and making many pits neere together in a round compaſſe, that ſo they may make a faire knot and plant: and that you may couer it againe eaſily without much ſtamping or treading for it. And aſſoone as the artichoke hath leaues big enough, it muſt be watered; and this watering continued in ſuch places as are very dry, that ſo it may bring forth a tender and great fruit. Aboue all things care muſt be had that the ſmall ende be not cleane contrarie put downeward, for then it would bring forth writhen, weake, ſmall, and hard artichokes. You muſt alſo make choiſe of the faireſt and greateſt ſeede that may bee found, and that the ſmall pits be made a good fathom the one from the other, that ſo one plant may not hinder another. It is true that it is better to plant the ſlips and branches than the ſeede, becauſe there

commeth

commeth fruit the ſooner of the one then of the other, and becauſe that in ſo planting of them, you may be occupied and well imploied euery moneth, and ſo reape your fruite in diuers ſeaſons of the yeere, according as the earth is fat or leane, hot or colde, moiſt or drie, or as the ground is hardly agreeing with and vnfit for this plant. And in any caſe plant of thoſe that beare the faireſt fruite, according as there are diuers ſorts in reſpect of their thicknes, length, roundnes, diuers colours and taſte, ſome alſo being prickly, and ſome without pricks.

If you would that the artichoke ſhould grow without pricks, you muſt rub it againſt a ſtone, and breake the end of the ſeede which is ſharpe: or elſe put the ſeede after the manner of a graft in the roote of a lettuſe which hath no rinde, and cut in ſmall peeces, in ſuch ſort as that euerie peece may be grafted with a ſeede and ſo planted. You ſhall haue artichokes of good taſte, if you let the ſeede ſteepe three daies before you plant it, in the iuice of roſes or lillies, or oile of bay, or of lauander, or ſome other ſweete and fragrant iuice, and then afterward drie it, and ſo plant or ſet it. Although that as concerning the former oiles, there be ſome which are of a contrarie opinion, and doe thinke that the oile doth ſpoile the ſeede. You ſhall haue an artichoke of the ſmell of the bay tree, if you cleaue or make a hole in a bay berrie, and putting therein the ſeede of an artichoke, doe ſet it ſo. Artichokes will be ſweete in taſte, if before you ſet the ſeede you ſteepe them in milke, which muſt be renued and changed twiſe or thriſe before that it ſower; or in honie: and then afterwarde to drie and ſet them.

Artichokes of a good ſmell.

Artichokes ſmelling like baies.

Sweet artichokes.

Two ſorts of beaſtes doe annoy the rootes of artichokes, miſe and moules. The dung of ſwine or the aſhes of the fig tree ſpred about the rootes of the artichoke, doe chaſe away miſe: and the like will fall out if you wrap their rootes about with wooll. Some to driue away rats that deſtroy the rootes of artichokes vnder the earth, pricke downe halfe a foote deepe in the earth, certaine ſtickes of elder tree, euery one ſome fower inches from the other; the ſmell of which elder is ſo odious vnto thoſe beaſtes, that they haue no deſire to come neere it, either vnder or aboue the ground, ſo long as it is greene, and therefore when theſe firſt ſtickes ſhall be drie you muſt renew them. Other ſome put thornes that are very ſharpe and pricking, or the pillings of cheſnuts vnder the earth, round about the plants of the artichokes, and that one neere vnto another, to the end that the rats, comming neere vnto the thornes, may preſently be driuen backe againe: others cauſe beanes to be boiled in ſome poiſoned water, and doe put them in the holes of this wicked cattell, for they taking the ſent thereof, they run thither preſently. As concerning moules we will ſpeake of the manner of killing them heereafter.

The roote of artichoke ſodden in wine and drunke, is ſoueraigne againſt

The vertues of the artichoke.

againſt the difficultie of making water, for the ſtinking and ſtrong ſmell of the arme-pits, and of the vrine alſo, for the hot and ſcalding fretting of ones vrine, whether it come of the pockes, or of ſome other cauſe, and ſo alſo for the dropſie: the pulpe boiled in fleſh broth and eaten with ſalt, pepper, and galanga, made in powder helpeth the weaknes of the generatiue partes. The Italians eate them in the morning raw with bread and ſalt, whiles they be yet yongue and tender.

The fifteenth Chapter.

Of ſorrell and burnet.

SOrrell and burnet notwithſtanding that they grow vntild in great abundance, yet they may be ſowen in fine ground and well manured, in the ſpring time eſpecially the ſorrell: for as for burnet, it groweth likewiſe and as well in drie grounds, nothing tilled or ſtirred: both of them being planted in gardens, muſt from the beginning be well watered: and he that deſireth to gather the ſeed, muſt take them vp and plant them againe, ſuffering them to grow to their perfection, and then to dry and wither. They feare not cold or froſt, neither yet abundance of water: but they looke (eſpecially the ſorrell) that they may become the fairer, to be cut three or fower times a yeere.

The vertues of ſorrell.

All the ſortes of ſorrell, as well thoſe of the field as thoſe of the garden, haue this vertue, that being boiled with fleſh how old and hard ſoeuer it be, yet they make it tender and looſe the bodie.

The leaues of ſorrell roſted in hot aſhes, haue a ſingular force to reſolue or to cauſe to apoſtumate the ſwellings of the eies. A cataplaſme made of the leaues of ſorrell with twile as much olde ſwines greaſe, all beaten and mingled together, and afterward put in the leafe of a colewort vnder the hot aſhes, is ſoueraigne againſt all colde apoſtumes. The ſeed of ſorrell powdred and drunke with water or wine, doth aſſwage the paine of the bloodie fluxe. Sorrell ſteept in vineger and eaten in the morning faſting, is a preſeruatiue againſt the plague, as alſo the ſyrope or iuleb made with the iuice thereof. The leaues of ſorrell well ſtamped, and applied vnto the wreſt, doth tame the fiercenes of the ague.

The bloodie fluxe.

The plague.

The vertues of burnet.

Burnet of the garden being an herbe that ſome vſe to put in their ſalades, whereof wee haue heere ſpoken, and which is alſo the ſame which the Latiniſts cal *Sanguiſorba*, taken in drinke is good to reſtraine the monethly termes of women, and all other fluxe of the belly, but eſpecially ſuch as are of blood: it is good alſo to drie vp wounds and vlcers if it be applied vnto them in forme of a cataplaſme. Some doe much eſteeme it in the plague time: and ſome ſay that the often vſe of burnet, eſpecially the iuice thereof is a ſoueraigne preſeruatiue againſt

gainſt dangerous diſeaſes, becauſe it hath a propertie very much ſtrengthening the liuer, the heart, and the ſpirits. The leaues of burnet put into the wine, make it more pleaſant, more ſtrong, and ſomewhat aromaticall, and of the taſt of millions: they are very good to be put in ſallades made with oile, ſalt, and vineger, according as we ſee them vſed euery day.

The ſixteenth Chapter.

Of Harts-horne, Trickmadame, and Pearceſtone.

Harts-horne. HArts-horne and trickmadam haue no neede of any great ſetting or planting: for both of them will come in any ground that one would haue them, whether it be husbanded or not. *To cauſe harts-horne to thriue.* True it is, that if you would haue harts-horne flouriſh and faire liking, you muſt cut it off, lead it along vpon ſome rouler, or cauſe it to goe vpon foot by it ſelfe: for it delighteth to be ſo intreated, and vtterly refuſing to grow otherwiſe than againſt the ground. Tricke-madam doth nothing feare the cold, and doth grow principally vpon the olde walles of vines, in a ſtonie and grauelly earth. Theſe are put in Summer-ſallades, though neither of them haue either taſte or ſmell fit for the ſame. The harts-horne is good to ſtay the fluxe of the bellie. *The vertues of harts-horne.*

Trickmadam ſtamped with lettuſe, and applied vnto the pulſes, doth delay the heat of an ague. The diſtilled water thereof being often times drunken, doth thoroughly heale burning and tertian agues. *The vertues of Trickmadame.*

Pearceſtone or ſampier. Pearceſtone is ſowen in a drie and ſandie ſoile, and craueth to be much watered euen from the beginning: he that deſireth the ſeede muſt let the herbe grow to her perfection, and afterward to drie the ſeed as corne is dried.

The preſeruing of ſampier. It may be preſerued in ſalt and vineger after the manner of purſlaine, and then it is ſoueraigne for the difficultie of vrine, for the *Iaundiſe.* iaundiſe, and to breake the ſtone, to prouoke womens termes, and to *Stone.* ſtirre vp ones appetite, if it be vſed in the beginning of meat. For want of ſuch as is pickled in vineger, you may make the deco-ction of the leaues, rootes, and ſeedes in wine, for to vſe in the ſame diſeaſe.

The ſeuenteenth Chapter.

Of Marigolds.

Marigolds. MArigolds haue not need of any great ordering, for they grow in vntilled fields and in any ground that a man will, neither doe they craue to be ſowen euerie yeere: for being once ſowen,

sowen, they afterward grow of themselues, and beare flowers in the Calends of euerie moneth of the yeere, as well in sommer as in winter, for which cause the Italians cal them the flowre of all the moneths: To be short, the place where they haue once beene sowen can hardly be rid of them. If they be neuer so little husbanded, and cut manie times, they will beare most faire flowers and verie great, but yet euer more in autumne than in the spring.

Tufted and wel thriuing marigoldes.

The vertues of marigoldes.

The iuice of the flowres of marigolds drunke fasting, haue great force to prouoke the tearmes of women: the fume or smoake of them taken through a funnell into the secret parts doth the like, and causeth the afterbirth to come foorth, and casteth yoong maides out of the greene sicknes. The conserue of the same flowers haue the same vertue. The women of *Italy* as well to prouoke the termes, as to stay them, do frie the iuice and tender crops of this herbe with the yelkes of egs and doe eate them. The verie same iuice mingled with a little wine or warme vineger, is a soueraigne remedie to asswage the extreme paines of the head and teeth, if one vse it in manner of a lotion. This iuice drunke to the quantitie of an ounce, with the weight of a French crowne of the powder of earthwormes rightly prepared, doth helpe greatly against the iaundise. Some say that to eate oft of marigold leaues doth make a good countenance: the distilled water of marigold leaues being dropt into the eies, or linnen clothes wet therein and applied vnto them, doth heale the rednes of the eies. The powder of the leaues thereof dried, and put in the hollow of the tooth doth cure the aking of the same. The iuice of the flowres of marigolds drunke to the quantitie of two ounces in the beginning of a pestilential ague, doth heale the plague, so that the sicke after he hath drunke this iuice, do presently lye downe, and be made sweat, being throughly couered in his bed: it doth cure also the iaundise and beating of the hart. The conserue of the flowers of marigolds doth the like. To drinke halfe an hower before the comming of the fit of a quartaine ague about three ounces of white wine, wherein haue beene steept seuen seedes of marigolds, and to goe ouer this drinke for diuers mornings together, is a soueraigne medicine against a quartaine ague.

The eighteenth Chapter.

Of beetes and blues, white and red.

Beetes.

BEetes, as well the white as the blacke and red, which is called Bette & Iotte of the inhabitants of *Tourraine*, or Romane of the *Picardes*, are sowen not onely in lent, but at all times, especially after December vntill March, and in August, to the ende that there may alwaies be in a readines both olde and yoong, and for to gather seede

ſeed which may endure good three yeeres. And for this cauſe you muſt take them vp and plant them againe, when they haue put forth fiue leaues, and put vnto the rootes a little new dung, and afterward lighten and raiſe their earth, and free them quite from weedes: they are apt and eaſie enough to grow, and though they be cut, yet they will ſpring againe if they be planted in a fat and well manured ground. They haue this ſpeciall and, as it were, admirable qualitie in them, namely, that they neuer come to their full perfection, vntill the third yeere after they be ſowen: in reſpect whereof, I could aduiſe the gardener not to gather any ſeeds of the beets to ſowe, but ſuch as the beet ſhall bring forth the third yeere: for of ſuch ſeed there grow very faire and goodly beets. *A ſpeciall propertie of the beet.*

If you would make choiſe of faire beets, chuſe rather the white then either the blacke or red, as being the faireſt and tendereſt: but to haue ſuch as ſhall be verie great and white, you muſt couer the roote with the new dung of oxen, and cleaue in ſunder their ſprout, as is done with leekes, and to lay vpon them a large and broad ſtone or a bricke. If you would haue your beets red, water them with the lees of red wine: or elſe plant them in ſuch a place, as wherein they may haue great heat from the ſunne. *Red beets.*

Beetes eaten in pottage doe looſe the bellie: the iuice of beetes drawen vp into the noſe, doth purge the braine: the ſame iuice rubbed vpon the head, cauſeth lice and nits to die. The roots of beets roaſted in the aſhes and eaten, do take away the ill ſmell that commeth of eating garleeke. The root of beets ſtamped and caſt in wine, doth turne the ſame within three houres after into vineger. *The vertues of the beets.* *For to make vineger quicklie.*

Blites are ſowen in March, and are not long in comming out of the earth. If they be ſowen in a well tilled ground, they will alſo grow the next yeere following without any new ſowing, in ſuch manner as that the ground will hardly be rid of them: they craue no weeding or ſweeping.

Blites doe looſe the bellie: their decoction wherein hath boiled the roots and leaues, killeth lice & nits: their leaues roaſted amongſt aſhes or boiled, doe heale burnings: the firſt boiling of blites with the gall of an oxe, and the oile of tartar, doth take away all ſpots out of garments without doing any harme: but preſently after you muſt waſh the place with warme water, *The vertues of Blites.*

The nineteenth Chapter.

Of arrach and ſpinach.

ARrach (in Latine called *Atriplex*) aſwell the white & red, as the greene, doe naturally grow in grounds manured with horſe-dung, and in ſuch place as where there hath beetes growen at

other times. They become red in the same sort that beets do in a fat and well dunged ground. But they are sowen in February, March, and Aprill: and they would be sowen thinne and not thicke, and oftentimes watered. Some sowe them in December to gather them in winter. They will not be remoued, but rather wed, watered, dungde with good dung, often cut and pruned, and that with an iron toole, that so they may not spend themselues in turning all their substance into leaues. But specially after the time that their seede is scattered vpon the earth, it must presently be couered with earth, and they must be sowen as cleare and cleane as may be, that so they may grow & come faire and goodly ones. In lesse than fifteen daies they be ready to eate. The Italians vse to make a kinde of tart of arraches: They chop small the leaues and stamp them with cheese, fresh butter, & the yelks of egs: afterward they put them in paste and bake them in the ouen.

Spinage. Spinage (so called becausse his seed is prickly) is of two sorts, the male and the female: the female beareth no seed. Both of them are sowen in August, September, and October, for to be vsed in Lent time, and in December, Ianuarie, and Februarie, for sommer: they beare out the roughnesse of all seasons very well and sufficiently, whether it be frost, cold, or snow: they grow also in any ground, so that it be well dressed and somewhat moist; they require (to the ende they may prosper well and spring quickly) to be watered euery euening, and to be couered either with straw or stubble. they stand not in need to be wed, but if they be cut oft they grow the fairer. And he that would haue them to continue long and flourish, must at one time cut off the one halfe of the stalke, and at another time, the other halfe. Likewise he that would haue them to continue sometime without being sowne euery yeere, must at the first when he soweth them, see that the seed be a good, full and well fed seed; for then for some yeeres following they will grow without being sowen againe, although the seed of the second yeere will be somewhat weake: for to keepe them from the frost, you must couer them with walnut tree leaues, and that before mists or fogs do fall in any manner of sort.

The inhabitants of Paris know well inough how profitable spinage is for to make meate of in Lent, which vse to make diuers sorts of dishes thereof for their bankets; as sometime they frie them with veriuice and butter: sometimes they preserue them at a small fire with butter in pots of earth: sometimes they make wreathes of them, as also diuers other fashions. The vse of spinage is good for them, which haue some impediment in breathing or speaking, or which are much troubled with the cough, especially if such a one in the morning do sup the broth of spinage boiled with fresh butter, or oile of sweet almonds, they looſen the bellie: their iuice is good against the stinging of scorpions and spiders, whether you drinke it, or lay it to outwardly.

The vertues of spinage.

The

The twentieth Chapter.

Of borage and bugloſſe.

BOrage and Bugloſſe being herbes much differing in leaues and flowers, are alike notwithſtanding in their rootes, ſeedes, and vertues, ſeruing to put in the pottage whiles their leaues are tender, and the flowers are vſed in ſalades. They are ſowen in Auguſt, September for Winter vſe; and in April for Summer: they may be remooued at any time; and as for the ſeed it muſt be gathered halfe ripe, that ſo it may not leape out of his coat.

Bugloſſe, but eſpecially the flower, doth miniſter pleaſantneſſe vnto men that vſe it oft times, becauſe it cheareth vp the heart, purgeth the bloud, and comforteth the vital ſpirits. The broth wherin bugloſſe ſhall haue beene boiled, doth looſe the belly. The root that beareth three ſtalkes ſtamped with the ſeed and boiled in wine, doth ſerue to be taken againſt tertian agues. The wine wherein the leaues of bugloſſe ſhall haue been ſteept, taketh away all ſadneſſe. The iuice of bugloſſe, leekes, and parſley mixt with wine or oile of ſweet almonds, is a ſoueraigne medecine to cauſe the after-birth of women to fall away. The iuice of borage and bugloſſe drunken, is a preſeruatiue againſt poiſon, if a man haue drunke it; as alſo againſt the biting of venimous beaſts. Bugloſſe hauing three leaues being ſtamped with his ſeed and root and drunke, doth helpe to put away the ſhakings of a tertian ague: and that which hath foure, againſt the ſhiuering coldes of quartaines. The water diſtilled is ſingular againſt the dotages hapning in feauers, as alſo againſt the inflammation of the eies.

The vertue of Bugloſſe.

The one and twentith Chapter.

Of Leekes both great and ſmall.

LEekes, aſwell thoſe that are long headed, as thoſe that are round, doe not require ſo rich and fat a ground as the herbes going before, and they may be ſowen at all times, if it were not for the gathering of the ſeed, for which cauſe they muſt be ſowen in December, Ianuary, and February, and there it will be ripe after March, and mid-Auguſt, and that if from the time that they are ſowen, you goe and tread vpon the beds, and water them not but foure daies after.

Leekes.

They are woont to be remooued when they growe of ſeede, and that either into ridges euery one being ſet foure inches from another, and then there is nothing taken from them but the endes and toppes of the leaues, or into a hole made with a ſticke, and then the rootes muſt be made cleane and cropped off, as alſo many of the leaues mingling ſand with the earth: or you ſhall plant them to make them

great, if you lay a bricke vpon the head of them after you haue planted them. This muſt be in Aprill, May, or all Iune, to haue for Summer vſe: and in Auguſt, September, and October for the Winter vſe: in any caſe you muſt weed, water, and dung them many times, eſpecially the round headed ones. Furthermore, to make them very thicke, put the ſeed of a cucumber, and of nauets in a reed, or in boxe boared thorow, and graft this reed into the head of the leeke, when you plant it the ſecond time: or elſe if you will haue great and groſſe leeks, you muſt put ſo much of their ſeed as you can holde in three fingers, in an old linnen cloth that is foule, and put it into the earth, couering it with dung, and watering it by and by: for all this little heape of ſeed thus put together, will make one great and thicke leeke.

The vertues of leekes.

Nero vſed euery morning the leaues of leekes with oile, to haue a good voice: although that leekes be noiſome to the ſtomacke, as being very windie, except they be boiled in a ſecond water. If you eat cummin before you eat leekes, your breath will not ſmell afterward of leekes. The leaues of leekes boiled, and applied vnto the ſwolne hemorrhoides, doth very much good both againſt the ſwelling and paine of them: the leaues of leeks ſtamped with honie, and applied in form of a cataplaſme vnto the ſtingings of ſpiders, or vpon the biting of venimous beaſts, are ſoueraigne remedies for the ſame. The iuice of leeks mixt with vineger and rubbed vpon the browes, ſtaieth bleeding at the noſe. The ſeed of leekes ſtamped and drunke with white or ſweet wine, doth heale the difficultie of making water. The iuice of leekes drunke with white wine, helpeth to bring women a bed which trauell in child-birth. The ſeed of leekes ſtampt with myrrhe and the iuice of plantaine, is good to ſtay the ſpetting of bloud, and bleeding at the noſe. The ſeed of leekes caſt in a veſſell of wine, doth keepe the wine from ſowring, and if it ſhould be ſowre alreadie, it renueth it, and returneth it to his former goodneſſe. The iuice of leekes, or leekes themſelues boild in oile, take away the paine and wormes in the eares: leekes roaſted vnder embers, and eaten, is ſingular good againſt the poiſon of toad-ſtooles, and to preſerue from drunkenneſſe, or elſe to driue it away, being alreadie poſſeſſed. If you boile leekes with earth-wormes in oile vnto the conſumption of the third part, and afterward ſtraine out this oile, it will be ſingular good for the vlcers and noiſe in the eares.

Poiſon.
Bleeding at the noſe.
Difficultie of making water.
For deliuerance in childbirth.
Spetting of bloud.

Small leeks.

Small leekes muſt be ſowen in the Spring, at ſuch time as other herbes are ſowen, they make a faire ſhew, becauſe of their thinne and little leaues: and becauſe alſo they keepe greene all the yeere long: they may ſeeme to be the ſame with chibols and cyues, which are woont to be vſed in ſalades, to helpe to temper the coolneſſe of other herbes vſed in ſalades: becauſe the chibols and cyues haue no head, but only a long ſtalke like vnto leekes.

The

The two and twentith Chapter.

Of Purſlaine.

PVrſlaine loueth to be ſowne in Februarie, March, Aprill, Maie, and Iune, but not at any other time, for it cannot abide the cold. It commeth in great abundance vpon beds mixt well with olde dung, or in a ground that is very fat of it ſelfe, eſpecially if it be ſowen amongſt colewoorts, onions, and leekes, and after it hath once taken with the ground, it will not faile any yeere afterward, though you take no paines with the ſowing of it: notwithſtanding it craueth to be oft watered, that it riſe not vpright like the ſtocke of a tree: it muſt be placed in the ſhadowes of trees, and amongſt clods full of herbes but not thicke, for then it could not well ſpread it ſelfe abroad.

The vertues of purſlaine.
Bloodie fluxe.
Wormes.
Drought.
Burning agues.
Chaps in the lips.

Purſlaine eaten doth cure the roughnes and aſtoniſhment of the teeth, ſtaieth ſpetting of blood, and quencheth the heate of the reines, notwithſtanding that this herbe is hard to digeſt, and nouriſheth but a little: being applied vnto the browes it appeaſeth the headach, and being laid vpon the nauell it killeth the wormes in children. The decoction of the leaues thereof, or the ſeede, or the water diſtilled, is a ſoueraigne remedie againſt the bloodie fluxe and the wormes in children. A leafe of purſlaine put vpon the toong aſſwageth thirſt. A cataplaſme made of purſlaine and barlie meale, applied vnto the liuer and ſlanke, worketh a maruellous effect againſt burning agues. A liniment made with honie, and the powder of the roote of purſlaine dried, healeth the chaps of the lips and hands.

The three and twentith Chapter.

Of onions, chibols, and chiues.

ONions (ſo called of the French, becauſe they haue but onely one white roote, like to a pearle) (which the Latins call *Vnio*) for the moſt part, whether they be white, red, or round, would be ſowen in Ianuarie, Februarie and March, in a fat ground, wel dunged, blacke, well turned as alſo well cleanſed from ſtones and enriched: or elſe in a red earth which is ſhort and murlie, for in it they grow excellently. They would be remooued in Aprill all along, well weeded, and often laboured to cauſe them to grow great and thicke, and they muſt be kept from colde and freeſing windes. In them wee muſt obſerue a nature contrarie vnto that of other herbes and plants, being of greater force and vertue in the increaſe of the moone, then in the decreaſe, quite contrarie to that of onions, which in the wane of the Moone is more effectuall, and in the growth of the Moone more drie and weake. Such as are intended to be kept for ſeede, when they

begin to put forth their ſtalke and to riſe aloft, muſt haue ſmall ſtickes or poles to ſet by them and keepe them vpright, that the winde doe not bow or breake them downe. They muſt be gathered in the olde of the moone in faire and drie weather, when the leaues begin to drie, and the ſeed to growe blacke, for then you muſt pull vp the whole ſtalkes, and drie them in the ſunne: and it is ſaid that if they be ſowen and planted when the moone is vnder the earth, they taſte the ſtronger, but are ſmaller and leſſe: furthermore they muſt be ordered as leekes. But it muſt be obſerued, that they loue and delight in a red earth, and to be ſowen in faire weather, in the decreaſe of the moone, to be taken vp againe, and by and by watered: and for to make them grow great, they muſt haue their top taken away when they are planted, and their heads vncouered, and their earth muſt be digged twentie daies before they be remoued againe, that ſo it may drie, and not haue any moiſture in it. And to keepe onions from rotting, you muſt caſt them into warme water, and drie them in the ſunne, and after that they are drie, to lay them vpon barly ſtrawe, ſo as they may not touch one another. Who ſo would make choiſe of onions muſt know, that the round and white ones are a great deale better than thoſe of a ruſſetiſh or reddiſh colour, and not to be ſo hot and ſharpe as the other: the beſt in France are thoſe which growe at *Fertlonion* a ſmall village neere vnto *Eſtamps*, for it hath his name vpon that occaſion.

To keepe onions from rotting.

To make choiſe of onions.

The onion though it be the countrie mans meate, is better to vſe than to taſte; for he that eateth euerie day tender onions with honie to his breakefaſt, ſhall liue the more healthfull, ſo that they be not too new: for the drie are more healthfull than the greene: the boiled, than the raw: the preſerued, than the drie; wherefore the drie muſt be choſen to vſe in ſallets, fried meats, gally-mawfries, baked meates, ſauces, beane pottage, and other vſes.

The vertues of onions.

The iuice of onions cauſeth haire to grow againe, clenſeth filthy eares and ſuch as run with matter, taketh away white ſpots as well out of the face, as from the reſt of the body: it cureth the dropſie with the iuice of fennell, if it be but beginning: it purgeth the braine through the noſtrils: mingled with hens greaſe it drieth vp the kibes; applied with a linnen cloth vnto burnings it eaſeth and taketh away the paine; being mixt with ſtrong vineger it ſtaieth bleeding at the noſe, if it be dropt and put into the noſe with a feather.

Dropſie.

Kibed heeles.

An onion roſted vpon hot coales, and eaten with ſugar, oile, and a little vineger, doth cure the cough, and is good for them that are ſtopt or ſtuffed in their lungs, and ſuch as are ſhort breathed: take away the hart of an onion, fill it with cummin ſeede powdred, ſtop the hole, and roſte the onion thus prepared vnder hot aſhes, when it is roſted ſtraine it out, this iuice is ſingular good for the noiſes and deafeneſſe of the eares, being dropt into them: the thicke rinde of the onion, burned

burned or rosted vnder hot ashes, asswageth old headach and megrams, if you put a little morsell moistened or besprinkled with oile of roses and baies, within the eare of that side of the head that aketh. An onion stampt with fresh butter, easeth the paines of the hemorrhoides: stampt with honie and salt, it is a soueraigne remedie for the biting of a mad dog, and other such like beastes,: mingled with hens grease, it taketh away the red and blew spots of the face: boiled in wine or in water, and afterward stampt and fried in common oile, and applied in forme of a cataplasme vnto the nauell; it asswageth the throwes of women newly brought in bed: rosted vpon hot coles and mixed with leauen and oile of lillies, it ripeneth impostumes: take away the hart of the onion, fill the hollow place with treacle or mithridate dissolued and bet with the iuice of citrons, stop vp the hole againe with the cap or vpper crust which you cut off, roste all together vnder the hot ashes, and that so long as vntill all be well incorporated and drencht in, afterward straine the onion so rosted, and giue that which shall be strained, to drinke to him that is infected with the plague, and cause him by and by to lie downe, and to be well couered, to the ende that hee may sweate: this medicine hath not his match against the plague, prouided that the sweate breake foorth by and by.

The biting of a mad dogge.
Red spots.

As for chibols and chiues, they come more neere vnto the nature of onions (as by the smell one may well perceiue) then vnto the nature of leekes, which they nothing resemble, saue onely in the blade or stalke, and in that they haue no head: they must be sowen in the spring, as other herbes, in the same ground with the onion: they are very pleasant in sallets, to temper the coldnes of other cold herbes.

The fower and twentith Chapter.

Of garlicke.

Garlicke.

GArlicke (as is well knowne vnto the inhabitants of *Gascoine*, *Aquitaine*, *Limosin*, and those about *Burdeaux*) would be planted at the same time that onions are, and in the new of the moone, that so they may be great: and it must not be set in whole heads, but in those little cloues and parts which may be diuided and taken off from the head: they shall be set all along vpon beds diuided by ridges, like vnto ridged grounds of the countrie of *Beaux*, to the ende that the water may not destroy them in winter. For this herbe desireth a dry ground and but a little moist, very white, and not much dunged or very fat. When they shall haue put forth three leaues, you must weede them as oft as you can, for so they will become fairer, and their seede will be the greater. Who so is desirous to haue it great headed, must take away the tops of it, or else tread it downe with his

feete before it put foorth his ſtalke, for by this meanes the iuice will returne into the head. It groweth likewiſe of ſeede, but more ſlowly, for it hath no better a head for the firſt yeere then a leeke, the ſecond yeere it beginneth to bee better headed and more like it ſelfe, but is not perfect and abſolute vntill the third yeere. If you ſowe it in the wane of the moone, and take them vp in like manner when the moone is vnder the earth, you ſhall haue garlicke that will not ſmell ſo ſtrong: but contrariwiſe if you ſowe in the newe or growth of the moone. Likewiſe it will haue a ſweete ſauour, if when you ſowe it, you ſet in the midſt thereof the kernels of oliues: as likewiſe if in planting it, you ſet by the ſide thereof a cloue ioined very cloſe thereunto, it will retaine the ſmell and taſte thereof. In like manner it will be of a better taſte, if you ſteepe it in good ſweete wine a day before that you ſow it: & if you ſteepe it in milke two daies before you ſow it, it will become greater and better. The fit and conuenient time to gather and take it vp, is in the wane of the moone, and in drie and faire weather when the ſtalke will no longer ſtand vpright. It is kept well vpon ſtraw lying bare, or hung vp in the ſmoake of the chimney, or being ſteept a little in ſalt water. And to keepe it long, you muſt let it ripe wel, and when it is gathered to lay it in the ſun that it may drie throughly, and afterward to lay it vp in a place that is not moiſt: and whereas notwithſtanding the Sunne commeth not, for ſo it woulde continue but a while. It is true that if you meane to ſow and ſet it afterward, that then you muſt not hang it vp in the ſmoake nor ſteepe it in ſalt water, for ſuch kinde of keeping doth make it barren and not fit to grow any more.

Sweet garlicke.

How to keepe garlicke.

The vertues of garlicke.

The taſte of garlicke.

Garlicke eaten, bringeth a very vnpleaſant ſmell vnto the mouth, and for the taking away of the ſame, you muſt eate a raw beane by and by after, or the ribbe of a beete roſted in aſhes, or ſome ſmallage or greene parſley: or which is better, if you loue garlicke, and hate the ſtinking breath that it yeeldeth, then vſe vineger wherein it hath beene ſteeped: or elſe cauſe the diſhes and veſſels whereon your meat is to be ſerued to be rubbed therewith: for by this meanes you ſhall haue the taſte of it in your mouth, and yet your breath ſhall not ſmell any thing ill.

The plague.

Garlicke eaten faſting is the countrie-mans treacle in the time of the plague, and other dangerous diſeaſes, as alſo againſt all manner of venome and poiſon. It is true that it cauſeth thirſt and heate throughout the bodie, and headach when it is oft vſed: but all theſe inconueniences will be eaſily corrected, if you eate ſome ſmallage or parſley preſently after. Very many men, but eſpecially the people of *Aquitaine* in the beginning of the ſpring time, namely the firſt day of May, doe eate euery morning garlicke with freſh butter: by this meanes they hope to continue ſound and ſtrong all the yeere.

Garlicke applied in forme of a cataplaſme vnto the ſtingings of

ſerpents,

ſerpents, or biting of a madde dogge, is a ſoueraigne medicine againſt the ſame. A liniment made of garlicke, ſalt, and vineger, killeth nits and lice. *The lyting of a mad dogge. Nits. Lice.*

The decoction of garlicke not bruſed, giuen in clyſters, or applied vnto the bellie in manner of a fomentation, aſſwageth the paine of the colicke, and expelleth winde. *Colicke.*

Againſt an old cough comming of a colde cauſe, it is very good to rub the ſoles of the feete, the backe bone, and wreſts of the handes with an ointment or liniment made of three garlicke heades, well pounded and beaten in ſwines ſeame. *Cough.* Againſt the paine of the teeth comming of a colde cauſe, there is nothing better then to hold in the mouth vineger, or the decoction of garlicke, or to applie vnto the aking tooth three cloues of garlicke ſtampt in vineger. *Toothach.* For the killing of wormes in children, it is good to giue them to eate garlicke with freſh butter, or elſe to make a cataplaſme thereof to laie vpon the ſtomacke. *Wormes.* They which can ſcarce or hardly make their water, or are ſubiect to the ſtone, receiue great comfort by eating of garlicke. *Difficultie of vrine.* To keepe birdes from hurting of yoong fruite, you muſt hang at the boughes of thoſe trees ſome quantitie of garlicke. *Birdes.*

The fiue and twentith Chapter.

Of ſcallions.

SCallions are like vnto garlicke in taſte and ſmell, but in ſtalke and faſhion, the leaues reſemble onions, ſaue onely that out of their head their grow many hulles or huskes, which bring foorth many round little leaues: they thriue and grow better when they be ſet then when they be ſowen, for when they bee ſowen there is no great hope of their comming to any fairenes before the ſecond yeere. They may bee planted from the firſt day of Nouember vnto the moneth of February, to haue the fruite thereof the next ſpring, and they are planted as garlicke: but in the meane time you muſt gather them before the March violets do flower, for if one vſe them not before that they bee flowred, they will fall away and become but ſillie ones. They are knowne to be ripe, if their leaues begin to drie awaie below. For to cauſe them to haue great and thicke heads, you muſt put brickes round about their roots, as hath beene ſaid of leekes. *Scallions.*

As concerning the vſe of ſcallions, there is no great helpe or profite to be hoped for or expected, except of ſuch as are giuen more to their pleaſure, then to their health: for the ſcallion ſerueth for no other thing but to prouoke and ſtirre folke to the act of carnall copulation, and to haue a good appetite: they haue the ſame vertues that garlicke, ſaue onely that they be ſomwhat troubleſome to the ſtomacke, becauſe of their more ſharpe and ſubtle taſte. *The vertues of ſcallions.*

The

The sixe and twentith Chapter.

Of parsley.

Parsley.

PArsley craueth no great labour, but loueth a stonie and sandie ground, for which cause it is called parsley; againe it craueth not any store of manure: wherefore it will be good to sowe it vnder arbours: it desireth aboue all things to be well watred, and if it so fall out as that it be sowen or planted neere vnto any fountaine or riuer, it groweth very faire, and in great quantitie. And if any be desirous that it should haue large leaues, he must put into a faire linnen cloth, so much seede as he can hold in his three fingers, and so cast it amongst the stones in the ground: or else he must put in a goates trottle a quantitie of parsley seede, and so set or sow it: and he that will haue it curled, must bruise the seed with a pestle of willow, to the end that the huske may breake and fal off, and afterward wrap it in a linnen cloth, and so put it in the ground. Otherwise, without thus much to doe, it may be made to curle howsoeuer it be sowen, if you draw a rowler vpon it so soone as it beginneth to grow: It is a good time to sow it from mid-Maie vnto the sunne be risen to his highest point in the heauens, for it somewhat craueth the heate. The seede thereof that is but a yeere old is nothing woorth, for looke how much elder the seed is, by so much it is the better, and indureth a long time vnsowen; in such sort as that it will not be needfull to sow or plant it of fiue yeeres, although when it is sowen it groweth not vnder the space of threescore daies. Notwithstanding to cause it to grow and put more speedily out of the earth, it behoooueth that the seede be steept in vineger some certaine time, and after sowen in a well toiled ground, and filled or mixt with one halfe of the ashes of beane stalkes: and after it is sowen it must be oft watered, and sleightly with a little aqua vitæ, and by and by after the watering, to laie aloft it a piece of cloath, that the heat thereof may not be spent and breath away, and by this meanes it will grow vp within a few howers, and then you must take off the cloath couering it and water it oft, and by this meanes it will haue a high stalke and great leaues.

The vertues of parsley.

A cataplasme made of the leaues of parsley with the crums of white bread, doth heale a tetter or ringworme, doth resolue the swellings of the breasts, and maketh women that are brought in bed to loose their milke. The iuice of parsley drawen out with vineger, and mixt with a little salt, helpeth women that are in trauell to be deliuered. The often vse of parsley taketh away the stinking of the breath, especially from such as haue drunke much wine or eaten garlicke: and therefore such as vse to keepe company much, and haue an ill breath, must not goe vnprouided of good store of fresh parsley to chaw or

Deliuerie of women in their trauell.

A stinking breath.

hold

hold in their mouthes. The decoction of the rootes or leaues of parſley, helpeth downe womens termes, prouoketh vrine, caſteth out grauell contained in the vrinarie veſſels, taketh away the paine of the colicke and of the reines, applied in manner of a fomentation vpon the pained parts: it ſerueth alſo for the obſtructions of the liuer, but better for ſuch as are flegmaticke, than for the cholericke, or thoſe that are of ſanguine complexion. The leaues of parſly caſt vpon the water of fiſh-pondes, do recreate and reioice the ſicke and diſeaſed fiſh.

To make water. *The colicke.* *Paine of the reines.*

The ſeuen and twentith Chapter.

Of rocket and tarragon.

ROcket being an herbe very vſuall in ſallades, and good to temper the coldneſſe of lettuſes, may be ſowen as well in winter as in ſommer, for it feareth not colde nor other iniury of the aire: neither doth it require any great labour: it loueth notwithſtanding to be wed and manured in a grauelly ground. Rocket muſt not be eaten by it ſelfe by reaſon of the great heat that it maketh in them that eat it, and for that cauſe it hath commonly for his companion in ſallades the leaues of lettuſe, ſeeing that the one of theſe doth notably temper the other. It is good notwithſtanding to prouoke vrine applied in forme of a cataplaſme vpon the ſhare bone: and ſome ſay that three leaues of rocket gathered with the left hand and bruiſed in honied water and taken in drinke, are ſoueraigne againſt the iaundiſe and hardneſſe of the ſpleene: rocket boiled and mixt with ſugar doth take awaie the cough in little children.

Rocket. *The force of rocket.* *Iaundiſe and hardneſſe of the ſpleene.*

Tarragon is made of linſeed prickt in many places of the head of a red onion, the ſtrongeſt and ſharpeſt that may be found, and put into well manured earth: and after it hath ſhot vp the height of a foote or ſomewhat more, you muſt take the ſlips or branches and ſet them againe in the ſame earth, and water them often.

Tarragon.

Tarragon hath the ſame force and vertue that rocket hath, and is not to be eaten alone, but with lettuſes and ſuch like herbes.

The eight and twentith Chapter.

Of ſmallage, cheruill, coſtmarie, and auens.

SMallage muſt be ſowen in a well toiled ground, and neere ſome wall: for it loueth the ſhadow: and groweth well in all manner of ground. And after that it is once ſowen, if it be not all pulled vp by the rootes, but that there be but one ſtalke left from yeere to yeere to ſeede, it will continue for euer, and it hath not any great

Smallage.

need

need of being weeded. The good time to sowe it, is from the end of Februarie, vnto the first day of September: it hath the like vertue that parsley hath, not to eate, but for Physicke: it is good also for all blew strokes, and bloud that is setled by reason of any kinde of blow: the oile thereof is likewise good for many diseases, and especially for the rawnes that commeth in the throat, if the place that is sore be oft annointed therewith: it is true that smallage stirreth vp the falling sickneſſe, if we may beleeue *Plinie*: although that *Galen* in the curing of the falling sicknes, doe prescribe the roots of smallage and Parsley: I haue tried by experience oftentimes, that the leaues of smallage chawed raw, do prouoke the tearmes of women.

Cheruile.

Cheruile called in Latine *Cerefolium*, loueth to be sowen in a ground that is well manured, and in the time of Februarie, March, and Aprill, and sometimes in August and September for to haue it in winter, and it would be oft watred. Cheruile doth stirre vp the stomacke, and is very good to prouoke vrine and purge the bloud.

The vertue of cheruile.

Costmarie and Auens.

Costmarie and Auens are very pleasant herbes to giue a sauour like spice in potage and salades: they woulde be sowen in Maie and Aprill, and remooued in Nouember. Both of them haue the taste of pepper and cloues, and therefore cannot but be good to comfort the stomacke. Some to prouoke appetite, make a greene sauce of sorrell for to eate with meate. Physicions do greatly esteeme of the decoction of costmarie against the swimming disease, astonishments, falling sicknes, obstructions of the lungs, dropsies, and iaundise: as also for the colicke, stone, difficultie to make water, staying of the tearmes for quicke deliuerie in childbirth, and to bring downe the afterbirth.

The nine and twentith Chapter.

Of Asparagus.

ASparagus doth grow bigge in a fat and spongie ground that is free from stones, well dressed, plaine and smooth, demanding no helpe of watering, except a little in Autumne. Some sowe them in the spring at the new of the Moone: but it is better to set the rootes, which spread and increase better and sooner then the seedes: whether they be sowen of seedes or set of rootes, it must be done in furrowes three inches deepe, and a fadome ouer on euery side, standing one from another a good long foote: put into euery furrow two or three seedes, euerie one off from another some nine inches, about fortie daies after the seedes doe gather togither, and ioine one with another becomming one: after you haue set them thus low, you must cast vpon them the third part of the earth that you haue taken out of the furrowes, which must be sifted before you put it there, with an iron sieue, that so the sunne may pierce the deeper, and draw the aspa-

ragus

ragus vnto it : after this, you muſt weed them oft, and helpe them in October with ſome well rotted manure of horſe, ſheepe, or birds, or which is better, with the filth and ordure of ſincks and priuies, and the duſt which falleth out of wooll when it is beaten, and againe, vpon this the ſeeds and droſſe of the vinepreſſe and grapes: you muſt renue their ground often times in February, and caſt new dung vpon it : you muſt doe the like alſo the ſecond yeere in Februarie or March, and likewiſe euery yeere in October. It is true that they muſt be remooued the ſecond or third yeere, and neuer to cut them vntill the third yeere, and then in the moneth of May. Inſtead of remooving them it were better to vncouer their roots, and to take away thoſe that are ſuperfluous for to ſet in ſome other place, and then to purge them of withered and rotten or corrupted branches, (inaſmuch as aſparagus would neuer be remooued out of their place, except it be when they growe too thicke together.) For doing ſo two or three yeeres one after another, it will fall out that all the intangled and folded one within another will be taken away, and then you may prune and trim thoſe which you leaue ſtanding, which you muſt couer from foot to foot, or from root to root, with well ſeaſoned manure, being rotted and mixt with as much ſifted mould, ſifting moreouer the ſame which was aboue before, and putting it into his old place from whence it was taken, and in ſuch maner as it was found there. Howſoeuer it be the yere after they be planted, there may well be taken from them ſome one of their ſtalkes, and the other let ſtand to ſeed. The ſtalke ſo taken away muſt be cut away, not pluckt away, for feare of doing hurt to the root: for to haue aſparagus to growe faire and abundantly, you muſt couer the earth of the trenches with beaſts hornes ; or elſe ſowe in the furrowes where you ſhall ſet them, the powder of the hornes of weathers, or wilde rammes, or ſome others, and afterward you ſhall water them. And this is the cauſe that maketh them growe naturally in the medowes. Others there are which ſay (though it be a woonderfull thing) that there muſt nothing be done to the hornes, but onely bored thorow, and to hide them in good ground, and that of them will breede and growe aſparagus. And to cauſe aſparagus to ſprout and bring foorth often, you muſt rake and weed and digge about them often, opening their roots, after that you haue gathered the fruit, and ſtraw vpon them the powder of beaſtes hornes : for the plant being thus handled, will beare his fruit otherwiſe.

The way to haue good ſtore of aſparagus.

Aſparagus may grow of a ſheeps horne.

Aſparagus is a delicate fruit, and wholeſome for euerie bodie, and eſpecially when it is thicke, tender, ſweet, and not verie much boiled, it giueth a good ſtomacke vnto the ſicke : if it be vſed before meat, it prouoketh vrine, it openeth the obſtructions of the reines and the liuer. The root thereof applied to the tooth-ache, aſſwageth the paine, being dry and thruſt into the teeth it rooteth them out : put

The vertues of aſparagus.

into

into a decoction and drunke often times, it breaketh the ſtone, it maketh a good colour in the face, and a ſweet ſmell in all the body, excepted only that it maketh the vrine ſtrong, and ſtinking.

The thirtieth Chapter.

Of garden and water-creſſes.

Garden-water-creſſes.

GArden-creſſes, ſo called becauſe they growe at all times, & are of great nouriſhment, as alſo water-creſſes, doe loue moiſt places, and the little brookes riſing from ſprings and other little riuers: wherfore they aske no other labour in gardens, but to be planted neere to lettuſes, that they may grow well, and to be watered euery day, hauing water alwaies at their foot.

The vertues of water and garden-creſſes.

Both of them are very good in ſalades of lettuſe, and haue great force againſt the ſtone and difficultie of vrine: and furthermore creſſes of the garden made in a cataplaſme, doth reſolue carbuncles, the ſciatica, cat-haires, and all other ſorts of impoſtumes, eſpecially if it be mixt with leauen, it killeth the wormes. The iuice therof drunke with the iuice of mints and wine, doth the like. The iuice of water-creſſes dropt into the eare, doth heale the paine of the teeth, comming of a colde cauſe. The ſeede of creſſes chawed and held in the mouth, is good againſt the palſey of the tongue. In the palſies of other parts there muſt be applied vnto the ſaid parts bags full of the ſeede of the ſayd creſſes, hauing boiled it firſt in wine: the ſame remedie is good for the colicke.

Toothach. Palſey. Colicke.

Water-creſſes in a fomentation comfort a cold ſtomacke, prouoke the termes, mundifie and cleanſe the mother, and prepare it to conceiue: they diſſolue the colicke of the mother, if you frie them with mugwoort vpon a hot fire-pan, ſprinkling them with red wine, and applying them to the belly. They are very ſingular againſt the paines of the mother after childe-birth, if the flowers of cammomill and the leaues of mugwoort all chopt ſmall and incorporated with foure yolks of egges, you frie them all in a frying-pan with the oile of lillies, and applie it hot vnto the belly and nauell: the iuice thereof rubd about the cods, ſtaieth the fluxe of the ſeed in the night time: a cataplaſme made of the leaues of water-creſſes, of the leaues and roots of turneps, and of the roots of parſley, all chopt ſmall, and fried with pure wine and butter, and applied vnto the ſtomacke and the grine, cauſeth the vrine that hath beene long kept, to paſſe away and auoid.

The one and thirtieth Chapter.

Of ſaffron.

AS concerning ſaffron (as ſhall be ſayd heereafter) it loueth an indifferent ſoile, not ſtrong nor dunged, but yet well eared, lying

lying vpon the sunne, and well digged: and it commeth verie well in the place where onions haue growen. It loueth not water, and standeth in awe of the moule and mise: it groweth better the head being set, than the seed being sowen: for indeed it is not vsed to be sowen, but the heads of it only to be set, as the heads of lillies, leekes, or sea onions are: they are planted and set by ridges in Aprill and May: the heads are let ripen on heapes in the shadow of the sunne, some eight daies before they be set, and this must be in such a place as is not moist: they are set in a well digged earth with their roots, and a good distance one from another, as namely about halfe a spanne, and three inches deepe: it groweth the better if it be a little footed vpon. It flowreth euery yeere in autumne, for one whole moneth together and then letteth the flower fall: but it keepeth his leaues greene all winter long vnto the spring, and then it beginneth to wither, and maketh no shew at all in summer. It may continue good being set and planted for nine yeeres, and then if it bee remoued into some other place, it wil be able to do further good. It is true that it springeth forth many cloues and kernels which must be taken away euery three yeere, or else the root would be choaked and smoothered. Some doe set it (as being the best time) from after mid-August vnto mid-September, and cast at the rootes of it the drosse of grapes as it commeth from the presse, and leaue it in the earth two or three yeeres: and euerie yeere in Aprill and May the dried part of the herb is tied vp and troden into the earth some two inches deep without hurting of the root: and after you haue clensed the grassie part and leaues thereof, and that the flower shall be ripe, as in August and toward autumne, it shall be gathered in the morning at sunne rise and reserued in a close and drie place. Furthermore, the saffron is knowen to be good, if it be fat: if being holden in your hand it make a noise, and if being put into any liquor it dissolue; if being handled and held vp to the face, it procure a certaine kinde of biting or pricking vnto the eies; if it be of a golden colour; if it dy the hand with his colour, and haue somewhat a sharpe smell and pricking; and if it be not brittle and verie readie to breake. *Good Saffron.*

Saffron taken in a verie small quantitie, is good for the weakenesse of the stomacke and fainting of the hart; it keepeth from being drunke, and healeth the bitings of serpents and spiders; if it be taken inwardly or applied outwardlie in great quantitie, it procureth swimming and paine in the heade, and bringeth a foggie mist ouer the eies.

The two and thirtith Chapter.

Of nauets great and small.

Napes

NApes and nauets (called of the Latines *Napi*) are two diuers sorts of one kinde, but notwithstanding differing in taste, colour, and greatnesse: for the napes are greater and drawing toward a yellow colour lesse pleasing the taste: nauets are lesse, white, and a great deale more sauorie: both of them are sowen after one fashion in a well digged ground, and withall well inriched, and made very good, that so they may goe downe a good way and worke themselues deepe into the ground, or elsein a ground which is intended to be made fertill, or vpon stubbles which haue beene newly plowed, or betwixt millet and pannicke: the seede is vsed to be mingled with earth broken into small powder, that so it may sowe the more cleerly not falling many together: it must not be aboue three yeeres old; for if it be elder it bringeth forth colewoorts. And if the seed haue beene steept and moistned in milke or sweet wine, or honied water, two or three dayes before it be sowen, it will be verie much the better. And if they come vp too thicke, there is some part of them to be taken vp and set in other places. They must be well wed and digged, and the faireſt and greateſt kept to haue the seed of them: they are sowen in August. When you goe about to sowe them, you must looke that the earth haue beene newly watered with raine: for so they will growe better. And aboue all things it must be looked vnto, that they be not sowen in a shadowed ground, for the shade is altogether contrarie vnto them though the earth be good and fertill. They are gathered in Nouember, and kept in Winter vpon sand in roomes vnder the earth, for to eat in Winter and Lent time. I report my selfe vnto them of *Meason* and *Vau-Girard* neere to *Paris*, which gather great store of them euery yeere to sell at *Paris*.

The gathering and keeping of napes.

The vertues of napes.

This fruit is windie, and begetteth wormes in yoong children by their sweetnesse: but they must be eaten with mustard. It is true that their seed doth resist venim, and there it is put into treacle: it likewise killeth the wormes being mingled with the iuice of orenges or limons: and it driueth forth the small pockes and meazles with the decoction of maiden-haire or of lentils. It prouoketh vrine mixt in equall quantitie with linseed and giuen to drinke in wine: it bringeth vp the crudities of the stomacke by vomit, being taken with honied vineger and warme water. The Egyptians make a very good oile of it.

The three and thirtieth Chapter.

Of turneps.

Turneps.

TVrneps (called in Latine *Rupa*) are of two sorts, the round and the long, and they differ not much from napes and nauets, saue only in greatnesse and taste. For turneps are a great deale bigger,

ger, and of a more pleasant taste then the napes: for the trueth whereof, I report my selfe to the inhabitants of *Limosin* in *Aquitaine*, and the people of *Sauoy*, who hauing no store of corne, haue no more excellēt a meat then turneps: and for the same cause they are so industrious in sowing and dressing of them, as being that commoditie and increase of the earth vnto them, which is as well, yea better beloued and more necessarie then any corne or graine. For they feede themselues and their cattell with the leaues, great and small stalkes, tops and roots of turneps: insomuch as that they complain of a famine when in their countrie their turneps are frozen in the ground, or haue receiued som ouerthrow by the iniurie of the heauens. *Turneps are the ordinarie meat of them of Limosin and Sauoy.*

The manner of ordering and dressing of them to make them growe, is as it were like vnto that of the napes: it is true that they woulde bee sowen verie thicke, and not thinne, for else they will prooue bu: verie small and little, and it would be rather in September then at any other time, in a moist ground, well manured and diligently corrected of such faults as it may haue: because they reioice and prooue a great deale the fairer and of a better taste in cold, snowie and foggie weather then they doe in faire: which is the onely cause that in the countrie of *Sauoy*, and *Limosin* they doe grow more sweet, tender, faire, and great, becausе of the fogs, snowes, and cold seasons that they suffer much in those places. If they be sowen in the spring time, there must care be had, that their leaues be not eaten with wormes and such other vermin: and the better to free them from this plague, it will be good to mingle of the dust that is to be found vpon floores with the seede some day before it be sowen, or else of the soot of the furnace or chimney: or else to steepe it in the iuice of houslecke, and afterward to sprinkle it ouer well with water, that so it may receiue some moisture: and then to sowe it the day after it hath beene so steeped.

It is one of the woonders of nature, that of so small a seede there should grow so great a fruit, as should sometime waigh thirty or forty pound. There must speciall care be had that the seede be not aboue three yeeres old: for if it be it will bring foorth colewoorts insteed of turneps. To haue them faire and great, after they become once so great as a finger, they must be remooued a good distance one from an other: afterward they must be couered with earth and troden downe verie hard: for by this course the iuice which should haue been spent in putting foorth of leaues and stalke, will turne to the making of the roote great. They must be gathered in Nouember, and for to keepe them all the winter, they must be buried in holes, or couered with leaues, or seed of mustard. *Turneps seed is very small.* *Faire turneps.* *The keeping of turneps.*

The vse of turneps is not verie good for health, notwithstanding their decoction is verie excellent good for to wash the feet of such as *The vertues of turneps.*

haue the goute withall. The cutlers and armorers doe constantly affirme that kniues, daggers, & swords, quenched three or fower times, when they are in forging, in the iuice of turneps, mixt with equall quantitie of the water or iuice presled out of earth wormes bruised, doth make their edge so hard, as that therewith you may cut yron as easily as any lead.

The fower and thirtith Chapter.

Of Radishes.

Radishes. RAdishes are properly the same which is called in Latine *Raphanus*, in Italie *Rauanels*, and at Parish *Raues*, they are vsed in manner of a salade with meate for to stirre vp the appetite. They grow better when they are planted, then when they are sowen, & there are two seasons for to set or sowe them in: that is to say, in February in the wane of the Moone, if we intend to haue the benefit of them in the spring: and in August or September, if we would vse them sooner: and this season without doubt is the better, because the radish in a cold and moist time groweth in the roote, and is more tender, but in a hot and drie time it groweth in stalkes and leaues. So soone as they are sowne they take roote, the leaues whereof you must tread and trample downe, that so the roote may grow the greater, which otherwise would runne vp all into leaues: likewise they must be gathered within two or three moneths (otherwise they will quickly goe to seede) and put them in the ground vnder sand or grauell after you haue cut off their leaues. The maner of ordring of them is to set them good and deepe in earth which is well husbanded, stirred vp euen from the bottome and dunged, and after they be prettie great ones, to couer them againe with earth, and to take off their leaues from them, for so they will become more sweete and pleasant. You must not plant or sowe them about vines or arbours: for they are great enemies vnto vines, as making them to runne out their iuice, when they are neighbours to it, by reason of their acrimonie and sharpenes. Some likewise say, that radishes doe keepe away drunkennes, because they greatly weaken the force of wine. To haue sweet radishes, their seede must be steeped in honied wine, or in the iuice of grapes boiled. They must be watered oftentimes with salt water, to haue them the more tender, and not so sharpe: for the salt water doth greatly diminish their bitternes: likewise we ordinarily see that they are eaten with salt and vineger. Their goodnes is knowne by their leaues, which by howe much they are the gentler in handling, by so much is the roote the tenderer and more pleasant to eate. The rinde doth likewise shewe the same: for the thinner it is, so much the more delightsome are the radishes.

Radishes contrary to wine.

Sweet radishes.

Good radishes.

Physitions

Phyſitians do hold that among other diſcommodities, the radiſh is an enemie vnto the teeth : and they make hard and ſtonie places in the mouthes of ſuch as vſe them : but this inconuenience may be amended, if preſently after you eate ſome certaine ſlips of hyſſope or thyme, or organie : or if they be eaten with oile : and againe, in ſtead of this one diſcommodity, they bring a thouſand profits for the health of mankinde. The rootes of radiſhes being newe, chopt ſmall, and ſprinckled with white wine that is neat and warmed in a frying-panne, and applied vnto the ſtomacke, cauſeth a man to piſſe abundantlie the water which hee could not auoid of a long time : the iuice of the ſame roote drunke to the quantitie of two ounces with malmeſey, worketh the like effect : take an ounce of the rindes of radiſhes, as much of the leaues of mercurie, foure graines of ſaffron, one dram of ſweete Caſſia, and two drams of the iuice of ſauin, poune them all together in a mortar, and put them in a linnen cloth, which being put vp into the matrix is a ſingular remedie to helpe them that trauell of child-birth. *Trauell of child-birth.* The iuice of the roote of radiſhes, mixt with oile of ſweet or bitter almonds, a little white wine, and a little coloquintida, all heated at the fire and ſtrained, and afterward dropt into the eares, doth take away the windineſſe and noiſe of the eares : being drunke with honied water it cureth the iaundiſe. *Noiſe of the eares.* The leaues boild in pottage in ſtead of colewoorts, do take away the obſtructions of the liuer and ſpleene. Their ſeede bruiſed and ſtrained with white wine, is ſoueraigne againſt all ſorts of poiſons and other dangerous diſeaſes. The rootes eaten faſting doe preſerue and keepe a man from venime and poiſon. *The ill taſte of wine.* Some hold it for a certaine trueth, that turneps ſteept in ſtinking and ill-ſauouring wine, doth take away altogether the ill taſte thereof. They wipe away the ſpots of the face, heale the places of the bodie raced with the twigs of rods, and couer the places with haire which are bare and ſhould not. *Spots.* But aboue all the reſt, there is no more certaine a remedie for the griefe of the reines, the ſtone, grauell, or difficultie to make water, than to drinke euening and morning going into bed, or comming out of it, a ſmall draught of white wine warme, wherein haue beene ſteeped the ſpace of eight houres, the rindes of radiſhes, with the fourth part of the kernels of medlars made in powder. *Grauell and the ſtone.* For the ſame matter there may be prouided a wine to vſe a long time, wherein hath beene infuſed a certaine time the powder of the rootes of radiſh dried. I cannot forget to ſet downe, that the often vſing of radiſhes bringeth vnto nurſes great ſtore of milke. And that water how ſtinking ſoeuer it be, wherein radiſhes haue beene boiled, will become better, and that they may not be eaten in the latter ende but at the beginning of meat, whatſoeuer it pleaſeth *Dioſcorides* to ſay, that ſo they may goe preſently out of the ſtomacke, and nothing hinder the digeſtion of the reſt of the meat. *Store of milke in nurſes.*

The fiue and thrtieth Chapter.

Of parſneps, mypes, carrets, and skirwoorts.

Parſneps. Mypes. Carrets. Skirworts.

PArſneps, mypes, carrets, and skirwoorts, are ſowen all after one faſhion, in a ground well digged, freed from ſtones, clenſed and ſcoured from all weedes, and vnprofitable rootes, being alſo manured and tilled well before: they may not be ſowen thicke, that ſo they may growe the longer and thicker. They muſt be watered as ſoone as they be ſowen, and if the time prooue drie, once a weeke, ſo long as till they be well ſprung vp. They are ſet alſo after one and the ſame faſhion: The time to ſowe or plant them, is in Autumne, and in the Spring: but Autumne is the better, that ſo you may haue them in Lent time. He that deſireth to haue their roots great, faire, and thicke, muſt often plucke away their leaues: they muſt be gathered halfe a yeere after they be ſowen, and then their leaues taken from them, and they kept vnder ſandie grauell eſpecially in Winter: for froſt cauſeth them to corrupt.

Parſneps may be kept a whole yeere or two in the earth, ſo as that one may know by the falling of the flowers, both the old and the new, and which are good in Winter and Lent, whether they be fried or otherwiſe.

The vertues.

All of them haue vertue to expell vrine, to aſſwage the paine of the colicke, and to prouoke womens termes: their leaues ſtamped and layed vpon wounds which happen in the legs, are very profitable for them.

The ſixe and thirtieth Chapter.

Of muſtard and poppie.

The goodneſſe of muſtard.

SEnuie or muſtard delighteth in a fat ground, and is ſowen with mouldes, before and after Winter, and it muſt be often weeded and watered, but it would not be ſowen too thicke: for it ſpreadeth very eaſily, inſomuch as it is hard to deſtroy it where it hath beene once ſowen: the ſeed will keepe fiue yeere, but the newer that it is, ſo much the better it is, either to ſowe or eate. It is diſcerned to be good, when being broken or crackt with the teeth, it appeareth greene within, but not white: for and if it be white, it is olde and not woorth any thing, either to ſowe or eate. That which is intended to be kept to eate, ſhall be good to be remooued when it is growing: for ſo it will yeeld a greater and fairer toppe: but that which is intended to vſe for ſeed, muſt not be remoued or haue his place and habitation changed.

The vertues of muſtard.

The ſeed of muſtard chawed, and holden vnder the tongue, is of great force againſt the palſey of the tongue, as alſo againſt all other manner of palſey, if vpon the grieued part there be applied a bagge full

full of the saide seede, hauing beene first boiled in wine. The powder thereof cast into the nostrils causeth neesing, and purgeth the braine from superfluities. The decoction of senuie or mustard doth asswage the tooth-ach comming of a cold cause, and being drunke breaketh the stone, and prouoketh the termes of women. It keepeth the haire cleane and from falling. The oile of mustard is soueraigne against the ach of the hips, and weaknes of the sinewes. Mustard seed braied and put into sweete wine, preserueth the same in his sweetenes, so that it shall not loose it, the reason is, because it keepeth it from taking of a heate: the same made in powder and mixt with vineger, doth heale the stingings of serpents and scorpions: being drunk, it ouercommeth the venome of mushroomes that haue been eaten: mingled with the vrine of a yoong childe, and rubd vpon the bellies of such as haue the dropsie, it causeth them to auoid water: if you temper it with water, and rubbe your hand or any other part that hath neede to be made cleane therewith: you shall perceiue the benefite thereof. The white poppie, which is sometimes vsed in pottage and clensed barlie, tartes, and other confections for to quench the thirst, prouoke sleepe, and coole the great heate of agues, neuer groweth of his olde roote, but will be sowen euerie yeere in September, in hot and drie countries: and in other places from Ianuarie vntill March, and it is sowen commonly with colewoortes. It prospereth best when it is sowen in places, where the crops of vines haue beene burned. I haue seene at *Vandeuer* a small village in *Burgundie*, yoong children and other folke to eate the seede of white poppie, for lickorishnes, without being any thing mooued to heauines of sleepe, but made more stirring and liuelie, which hath made mee to thinke that the seede of poppie is not so much to be feared, as some would beare in hand.

The seuen and thirtith Chapter.

Of cucumbers.

CVcumbers are sowen vpon a bed, in the moneth of March: and for feare of frost they are couered with strawe vntill mid-Maie, which is the time when they woulde be remooued vnto such ground as is well manured and thicke laide with dung, fat and soft, to the end they may be suffred to creepe and ripen vpon the ground: or else vpon beds, filled with fat and well manured earth, being a foote high. For to sowe them there must be planted fower or fiue seedes, the one from the other some two foote, they must not be weeded at all, because they thriue the better when they be ouergrowne with weedes. Notwithstanding in Spaine they vse to weede them as carefully as they can, as also lighten and raise their earth, and there growe verie faire cucumbers thereupon. It is good to water them oft, vntill they

put foorth their buds, and bring foorth fruit, yea and after also, if the time fall out somewhat drie : for the cucumber of his owne nature doth loue moisture, insomuch as if there be set a vessel ful of water vnder a cucumber, it will be found the next day to be shrunke three fingers, and it must be prouided that the water go directly downe vnto the roote of the cucumber, without touching the fruite, because otherwise it would make it worse. It is true that when it beginneth to ripen, the raine, and euery other manner of watering is enemy vnto it, for thereby it becommeth but more withered, without any taste, and altogether discontenting. It feareth the thunder and lightning, and for that cause you must not plant them in any such time, neither yet hope for any great increase thereof, in such yeeres, as wherein such stormes and tempests fall out : for thereupon they wither and fall quite away to nothing. If a man desire to haue them faire ones, he must gather them in the full of the moone, for at this time they grow bigge, and at other times they fade and grow lesse. Furthermore, there may not come neere vnto their bed, any vessell full of oile, because the cucumber of all other things hateth oile, and cannot thriue if he which doth till them, haue handled oile.

Oile an enemy vnto cucumbers.

The vertues of the cucumber.

The vse of cucumbers is altogether hurtfull, because the nourishment and iuice comming of them is easily corrupted in the veines, whereupon there growe in our bodies burning agues and such as are hard to cure : wherefore it is better to appoint them for meate for mules and asses, to which kind of beasts this fruit is very pleasant and profitable, than to ordaine them for mens foode and sustenance. It is true that their seede boiled with barley water doth prouoke vrine, asswage the heat of the reines, and diminish the heate and thirst that is in agues. A decoction made with the seede of cucumbers, winter cherries, mallowes, and the seeds of white poppie, adding thereto the iuice of licorice, a little mummia, gum arabecke, and tragacanth, is a singular remedie for them which are in consumptions, which cough continually, and haue their vrine burning them. Some likewise say, that a cucumber placed longwise, neere vnto a childe which hath an ague, being of the same greatnesse that the child is, doth deliuer it altogether from the ague.

The eight and thirtith Chapter.

Of Gourdes.

Gourdes.

GOurdes do craue the like earth and ordering or tillage that cucumbers do, foreseene that they haue the sunne at command : it is true that they must be soweu with greater distances, and in such sort as that they may climbe stakes, heapes of stone, and arbours, thereby to giue some pleasure in the beholding of the fruite hanging,

hanging, rather than the lying vpon beds: for they delight not so much in creeping vpon the earth as the cucumber doth, but rather to climbe on high.

The goodnesse of the seede.

Before you set them, you must steepe their seeds one night in water, that so you may learne to make the better choise of them, and to know which are good. And in that respect it wil be good to take those which sinke downe to the bottome, and let alone those which shall swimme vpon the toppe of the water, as being vnprofitable and woorth nothing to sowe. The seeds shall be put into the earth two together, the sharpe end vpward, in holes wide and deepe, to the quantity of two foote, and three or fowre foot euery one from another, filled with old dung, that is very small: or else to make them spring out of the earth the sooner, with horse dung as it commeth all hot from the stable: for other matters they craue no great attendance, prouided that they be serued with water to their contentment: and yet those which are least watred, will haue the most pleasant sauour and taste: wherefore if they be sowen in a drie ground, you must set harde by them, pots of water with lists of cloth or straw hanging at them, which will be continually dropping of water vpon them, which thing will be great aduantage to them during the great heate. It is certaine that the goodnesse and faireneſſe of gourdes doth consist altogether in the good choise and well setting of the seed: for the seedes which are next to the necke of the gourde doe bring foorth long ones, those which are in the midst, round ones: and those which are by the sides, short and thicke ones: in which consideration if you would haue grosse and thicke gourdes, which may serue to make vessels and bottles of, when they shall be drie, you must take the seed that is in the middest of the gourde, and set it with the head downeward: but when you desire to haue them to sell and to eate, you must take of the seed next vnto the necke, and set them after the right and common maner: for so the fruit will grow long, and more tender, and of a greater price. The gourdes intended to gather seede of for to sow, must not be gathered before winter, and when they are gathered, they must be put in the sunne to drie, or else hung vp in the smoake, or else hung (as the maner is in France) vnder some chamber floore, or else set them in rowes vpon boardes, for otherwise the seedes would rot: or else to put them in heapes of corne, which will not only keepe them from rotting, but will also ripen them if they be gathered being yet vnripe: but those which are intended to be eaten, must be gathered at their due time when as they be ripe.

The vertues of gourdes.

The vse of gourdes is not so dangerous as that of cucumbers: so that their waterishnesse be tempered with things meet and fit for the same, as with saffron, pepper, and other such aromaticall powders: and for the dish, those which are long and white are better, and to be pre-

ferred before either of the other two sorts. Physitions are of opinion that there is nothing better to asswage the heat of hot burning agues, to take away the thirst, and to loosen the bellie, then to vse oftentimes the strained iuice of gourdes stewed without liquor, in a new earthen pot, set in an ouen. There is nothing better for the drinesse of the toong, for sharpe and burning humours, and for leane agewish persons, then the vse of the pulpe of gourds, or the syrupe made of their iuice.

The nine and thirtith Chapter.

Of melons and pompions.

Melons and Pompions.

MElons and pompions doe not so easily growe in this countrie, bicause they delight in a countrie and aire that is hot: but by force of labour and cunning skill, they are drawne vnto it, by ordering their beddes and remouing of them, where they may bee shielded from the cold: and receiue the benefite of the south sunne, and reflexe of the heate of the same from some wall: and againe it is a speciall furtherance and helping of them forward, to forecast that they may grow in such seasons as are very hot: for now and then sommer falleth out so variable, and mixt with colde or drought, or moisture, as that thereupon they be not ripe till Autumne, and towardes the time of vintage. Wherefore it standeth you vpon to hasten them and helpe them forward with dung, and with the heate of their beds: though this course in the meane time stande not so well with the health of the parties that shall eate them, or with the goodnes and pleasant smel of the pompions: and thereupon it commeth that there are moe grounds planted with cresses then with melons amongst vs. Wherefore it were better to reserue for such vse a quarter of ground or thereabouts, in some place of your garden where the south sunne lieth, and is beaten backe by some wall, the same also keeping away the north winde, hauing no shadow either of trees, or of any other thing to keepe backe the sunne from it, but being withall a good, fat, and substantiall grounde, well weeded, well tilled, and the greene swarth well broken, and withall made very leuell and euen. And this your quarter would be againe diuided into fower small quarters. And to set your melon seedes which you intend to plant that yeere, but in one of the saide little quarters, letting the other three rest, and so successiuelie in succeeding yeeres to sowe the saide little quarters one after another: for then the melons will growe in their naturall goodnesse and perfection, it being their nature to craue a new rested, and well manured grounde. And if it be requisite to helpe such ground with some sweetenesse, you must burne vpon it in winter some straw or drie dung: or some elder tree amongst other wood, and

mixe

mixe the aſhes with the earth, to the end that during the time of winter, it may grow in ſeaſon: and if the ſaid ground haue need of more helpe, it muſt be dunged with ſheepes dung, or elſe with goates dung well rotted, and this to be done a long time before you intend to ſow your melon ſeede: for as for horſe or cow dung, it muſt not be vſed, except it be when no other thing can be gotten: and when it is vſed, it muſt be ſpred and mixt with the earth, long before ſeede-time, as hath beene ſaide. Whereby we may iudge how vnfit the beds now a daies vſed, are for to yeeld good melons: and they that would haue them grow vpon beds, as leſſe damnifying, muſt make their beds in the ſaide place of the garden, compaſſed about and hemd in with a mat, and vpon the bed muſt be caſt a laier of the beſt and fatteſt earth that you can finde, or of earth the thicknes of three fingers, and in this earth to ſet your ſeedes: for the melon will not be ſo much ſpotted with the dung, when there is a mixture of the one and the other. You muſt take the ſeede of the melon, which hath a thicke and hard huske, and looking very greene within, which is of the firſt growen, and of thoſe which grow neereſt vnto the roote, which you ſhall haue reſerued in your melon plot, vntil the full ripenes therof, that ſo you might grow others of it: for the ſeed is better when it is new taken out of the melon, hauing beene all that while from the gathering time, kept in the bodie and ſubſtance thereof: and if you would haue it to grow very quickly, ſteepe it in warme water ſixe or ſeuen howers, afterward about the tenth day of March, make your pits vpon your beds, ſome three or fower foote one from another, and two foote in depth and widenes, and if you may make your choiſe of dung, then fill them vp with ſheepe or goates dung that is old, well rotted, and crumblie, and with very fine black earth togither, and herewith to fill them vp within two fingers. Some put therein the dung of horſes comming hot from the ſtable, to make them put forth the ſooner, but the ſauour and goodnes of the melon is greatly hindred thereby: and thereupon pricke ſixe or ten ſeedes of your pompions, the ſharpe end downward (although ſome put not in aboue fower or fiue) and couer them again gently without much beating or treading of the earth downe vpon them. Afterward for to auoid danger of froſtes couer them with ſtraw or mats borne vp with ſtickes prickt vp one way: or if you haue the benefit of great boordes, or tables of boordes, borne vp with ſtones or rubbiſh by the way, that ſo they may not preſſe vpon them, and that ſo you may take them vp when the ſunne ſhineth hot, and lay them downe againe when the cold winde bloweth and when froſtes come. And as ſoone as the melons ſhall haue put foorth leaues big inough, you muſt water them with a ſhred of cloth hanging continually in a pot of water, without wetting of the melon any whit at all, and this watering muſt be continued in a verie drie ground, though you haue

remooued

remoued your melons, till the fruit become of the bignes of oranges: and if you vſe beds, you ſhall remooue them after mid-May in this countrie, out of the danger of froſts, about fiue or ſixe foot one from another, vpon a border well tilled and manured. And from that time forward, you ſhall weed out diligently all the weeds from about them, and ſhall lighten their earth at the trunke of the roote, without doing any hurt to it: and when the flowre ſhall peepe out, you muſt cut off the ends of the armes of the herbe, to the end that the flowre and the fruit may come foorth in greater ſtore and abundance. And for your better choiſe of the ſaid ſeed, take that which is of the melons firſt put forth (as I haue already ſaid) if ſo be that your melon plot do bring forth the fruit ſomewhat late, for otherwiſe it will be good to take them that come forth laſt: as alſo that which groweth betwixt the middle and head, or crowne of the melon, and out of it, not that which is on that ſide whereupon the melon lieth, the beſt ſeeded, and moſt riſing from the earth, being heauie and full; and you may make triall of it in water, becauſe that ſuch ſeede will ſinke downe to the bottome: and it muſt not be aboue one yeere old, for if it be, it ſoone groweth ſicke, and caſteth his fruit in vntimely ſort.

The gathering of melons.

Pompions and melons muſt be gathered in the morning before ſunne riſe, and they muſt be gathered when as they begin to caſt their taile, and yeeld a pleaſant ſmell at their endes, and then you muſt beware of and looke to cats that goe a catterwauling: and if you would carrie or ſend them farre, you muſt gather them a little before they be ripe, and with the hand onely without any edge toole, for they will come to their iuſt and perfect ripeneſſe by this courſe, which the cutting with an iron would keepe them from: there muſt notwithſtanding care be had that thoſe which are called winter pompions, be neuer ſuffered to ripen vpon their beds, but for to ripen them they muſt be gathered and hung vp vnder the floore of ſome higher roome, and when they are once turned yellow to eat them.

The goodneſſe of melons.

Furthermore, that I may ſay ſomething of their goodnes, you muſt vnderſtand that there are diuers ſorts of pompions, for there are ſome female, and are called pompionets, and they are more long than the other, and haue not their wrinkles ſtanding vp ſo high: the other be more thicke and greater bellied, and haue their wrinkles more high and ſtretched out from the taile vnto the eie. Some of them are called Turquins, as thoſe which haue a very green colour and drawing ſomewhat toward a blacke: ſome other of them haue the ſhape of a quince, and they are properly called melons, and haue a more faſt and ſolide fleſh than the pompions haue, which likewiſe haue not ſo many wrinkles in their ſides, nor ſo much moiſture in their hollow parts, neither yet are they ſo thicke, but haue a whitiſh fleſh, and a great deale more ſeede than the pompions. The other ſort may be called citruls, as hauing

uing the fashion and colour of a citron, and their leaues diuersly drawen with many small lines, like vnto the feathers or wings of birds. The other are winter pompions, and these are not so thicke or great as the common pompions: and yet furthermore the one hath a white meat, and the other a yellow, whereupon the first do craue more water than the latter, and the latter are better in a strange country. But the melons are best of all, as also the blacke coated pompion, and the muske million, which become so by hauing their seede steeped in water that is well sweetned with sugar or honie. The signe of a good melon is the bitternesse of the taile, the hardnesse of the crowne, the heauinesse and good smell of the whole. *Muske melons.*

As concerning their vse, they are somewhat more delicate and pleasant than cucumbers, so that they haue a fast meat, and their hollownesse drie: for otherwise they are fitter to make meate for cats that goe a catterwauling, or for mules and asses to make them fat, than for to feed men withall: notwithstanding this is a thing well and sufficiently prooued, that a slice of a melon or pompion put in a pot with flesh, causeth it to boile the sooner. Physitions likewise giue it out for a truth, that the seede as well of melons as of pompions, couered with sugar, or without sugar, is a soueraigne remedy to prouoke vrine, to asswage the heate of the reines, and to breke the stone. *The vertues of melons.* *Melons cause flesh to seeth.*

The fortith Chapter.

Of certaine speciall obseruations for and about cucumbers, citrons, gourdes, melons, and such like fruites.

IF the border whereon you set your melons be not so fat nor well dunged as that of the cucumber and gourd, and if it be not watered so soone as it is put foorth and sprong, it becommeth the faster meate, and more sauory, and sooner ripe.

To cause pompions, cucumbers, and gourdes to grow without seede, you must steepe your seedes in the oile of Sesamum, otherwise called Turkie millet, three daies before you sow them. *Pompions, gourdes and cucumbers without seed.*

To haue cucumbers of such forme and fashion as one would wish, they must be put whiles they be yet yoong aud small, together with their stalk, into vessels or bottels that haue some figure or shape drawn within them, and tie them about them, for in time they will fill vp the draughts and prints within the same: likewise to make them long, you must put their flowers into reedes, throughly emptied of their pith, for then the cucumber will grow all along: or else to set neere vnto them, some vessell full of water, as namely about halfe a foot off: for, as I haue said, cucumbers loue moisture so well, as that vpon the onely standing by of water, they will grow the more and become lon-

ger:

ger: in like sort standeth the case with the gourd.

For the helping forward of their growth. For their better and greater growth, you must sow them in cases or pots, or other great vessels full of sifted and well manured earth, which may be caried and rolled or drawne from one place to another into the sunne, that so it may haue both the presence of the sun-shine and absence of the colde windes and frostes, and when they begin to grow, breake off their ends.

To free them of vermine and lice, sowe organie round about them, or else pricke some boughes amongst their plants.

A cucumber without water. To make that a cucumber or melon shall haue no water, fill the pit that you haue digged to plant your seeds, halfe full of straw, or the shutes of vines cut verie small and put vpon the earth, and afterward your seed: and do not water them at all, or else verie little.

Pompions and melons laxatiue. To make melons or cucumbers laxatiue, sprinkle them fiue daies together, and fiue times euerie day with water, wherein hath beene steeped and infused the roote of wilde cucumber for the space of three daies. Otherwise, vncouer them so soone as they haue put foorth any budde, and dung them at the foote with about two ounces of blacke hellebor steept in water, and afterward couer them againe. Otherwise, steepe the seed before you sowe it three daies in the infusion of scammonie, or rubarbe, or agaricke, or some other purging medicine.

Sweete pompions. To make pompions sweet & smell well, so soone as you haue taken out the core and wiped and dried the seede, put it amongst drie roses, or some graines of muske, and there keepe it vntill you must sowe it, and if it so like you, sowe them togither: or else steepe the seed fower daies before you sowe it in damaske or sweete water: by such meanes you may giue them such taste and smell as you please, if you steepe their seede before you sow it in any such liquor, as in honied water, in rose water, or in water sweetened with sugar or muske: notwithstanding watering of them doth take from them a great deale of that their smell, as also of their sauour and taste.

Sugar-melons. To make cucumbers or pompions sugred, you must steepe the seede in water that is well sweetned with sugar or honie, and to make them sweete in sheepes milke, or honied water, and so sowe them: and when they be growne, you must sprinkle them ouer with the dust of some dry earth, and water them a little.

Lasting pompions. To make pompions to keepe long, and not to be spoild or rotted, you must sprinkle them with the iuice of houseleeke.

A woman in her tearmes maketh pompions drie and die. A woman hauing her termes and walking by the borders of pompions, gourds, and cucumbers, causeth them to drie and die: but and if any of the fruit escape it will be bitter.

To keepe cucumbers fresh a long time. Cucumbers indure fresh a long time, if they be put in the sweete lees of wine, or else in brine, or if they hang in a vessell wherein there

is a little vineger.

Pompions will haue the ſmell of roſes, if their ſeede be mingled with drie roſes, and afterward ſowen together: and then alſo they are excellent good to quench the thirſt in burning agues. *Pompions ſmelling like roſes.*

The one and fortieth Chapter.

Of ſtrawberies.

STrawberries haue no need of great toile or tilling, ſo that they be planted in ſome good ground not manured, notwithſtanding, but well ſhaded howſoeuer: becauſe they delight greatly in the ſhadow of other herbes, ſo alſo they are found growing amongſt great tall trees, without any manner of husbanding or tillage. It is true that they growe well in the open Sunne, ſo that they be watered once or twiſe a weeke, eſpecially when they begin to looke red: they muſt be remooued euery three yeeres, to make them beare faire berries, and their earth raiſed about them once euery yeere, and that about Chriſt tide, and to weed them by hand when as weeds do ouergrow them: in the ground whither you remooue them, you muſt firſt put horſe-dung well rotted, or cowes dung, a ſcuttle full to euerie border that is three foot broad: dreſſe this ground in a drie time, and let it lie afterward, and in a moiſt time, but not rainie, you ſhall ſet the ſtrawberries halfe a foot euerie way, thruſting the earth cloſe to the roote with a dibble. In theſe you may obſerue a certaine kinde of wonderfull harmleſneſſe and innocency: which although they creepe vpon the earth, and be continually troden vpon by adders, lizardes, ſnakes, and other venimous beaſts, are notwithſtanding neuer infected with them, neither get they any venimous ſauour, which ſheweth that they haue no affinitie with venime or poiſon. *Strawberries.*

Amongſt other pleaſures or commodities that they affoord, the iuice or wine that is ſtrained from ſtrawberries, is good to take away the red pimples, and itching knobs, which growe in the face by the heat of the liuer, as alſo to take away the redneſſe of the eyes, and to wipe out the ſpots and knobs of the leproſie. Likewiſe the decoction of the rootes and leaues of ſtrawberries made with wine, is ſingular good for the iaundiſe, if it be drunke for ſome time in the morning, as alſo to prouoke the termes in women; and this neuertheleſſe doth ſtay the white termes and bloudie fluxe: alſo vſed in forme of a gargariſme it comforteth the gummes and teeth, and driueth backe rheumes. *The vertues of ſtrawberries.*

Of

Of Physicke herbes.

The two and fortieth Chapter.

Of mallowes.

Borders for physicke herbs.

WEe haue heeretofore dedicated and appointed certaine borders downe belowe in the kitchin garden, neere vnto the wall of the orchard for Physicke herbes, whereof we desire and wish that the huswife may haue the knowledge, thereby to helpe the necessities of her people. And in this respect it shall not be thought strange, if we touch in a word the dressing and tilling of some few, such as are most vsuall and famaliar amongst women, leauing the more ample and exact description of them vnto such as make profession thereof: for the drift of my purpose is, to instruct the farmer and his wife, or her that is the huswife and dairie woman, so much as is needfull for the maintenance of their house and familie. But we will begin with mallowes, as those that are most in vse.

Mallowes.

Mallowes notwithstanding that they growe euery where, yet if you be disposed to sowe them, you may doe it most commodiously in Autumne, rather than at any other time, to the ende their growth on height may be represſed by the comming of winter: for by how much the mallow is the lesse, by so much it is the better. They loue a fat and moist earth, and craue to be remoued after they haue put forth foure or fiue leaues: though indeed it would be much the better not to remoue them at all, for so they will keepe a better relliſh: but to the end they should not grow vp into high and great stalkes, after that they be come foorth of the earth, you must put some little bricke in the midst of their leaues. They would be oft wed, and when they are remoued, if their leaues be tied together at the end, they will bring foorth a well liking and thicke set root.

The roote of mallowes steept in wine a whole day, and afterward wrapt in a paper, and roasted vnder the ashes and dried, is a fine medicine to rub the teeth withall, and to cleanse and scowre off from them the filth gathered thicke about them: the iuice drunke to the quantitie of halfe a pound, or the decoction of the rootes and leaues comming to a certaine thicke consistence, is exceedingly good for women which are in trauell of child-birth. It is singular also for many other things, and therefore it is called of some *Omnimorbia*.

Hollihocks.

Hollihocks craue the like husbanding and tillage that the mallowes do, because they are of the same kind, and in both of them, especially in the mallowes, wee must obserue as a miraculous thing, that their leaues and flower doe open at the approch and comming of the Sunne, and shut vp themselues to go to bed when it setteth, as doe the marigolds.

Both these haue great vertue to mollifie, they serue also to looſen the belly, especially the yongue and tender crops of mallowes haue vertue to aſswage the paine of the reines, and do cauſe a man to make water. The iuice mingled with oile doth heale the ſtinging of waſpes. The iuice mingled with wine doth helpe women trauailing of childe-birth. Their leaues ſtamped with the leaues of willowes doe ſtay inflammations. A cataplaſme made of their leaues, doth take away the hardnes of the mother and other parts, especially if it be made of mallowes with oile of roſes. *The vertues of mallowes and hollihockes.*

Gentian groweth in high places and open to the aire, being notwithſtanding wateriſh and ſomewhat ouerſhadowed. This herbe through his bitternes draweth down the termes and the ſtaied vrine: The water thereof, especially of the roote, being diſtilled through a limbecke in maries bath, doth marueilouſly heale the agues cauſed of the obſtructions of any noble part: and which is more, it killeth the worme, sand wipeth away all the ſpots of the face, if they be often waſhed therewith. It is exceeding good againſt the inflammation of the eies. *Gentian.*

The roote is a preſent remedie againſt the plague, not onely in men, but alſo in all ſorts of cattell: it is a ſpeciall preſeruatiue againſt all poiſon, and a meanes to withſtand all putrefaction: in regard whereof the Switzers mingle it amongſt their owne meate, and the fodder or prouander of their cattel, that ſo they may continue in good health.

Arſmart (ſo called becauſe the leaues applied to the fundament for to wipe it, doe cauſe great paine, and of the Latins *Hydropiper*) doth require a marſhie ground full of water, or at the leaſt very moiſt, or often watered, and it groweth rather being planted of a roote then ſowen of ſeed. *Arſmart.*

It is very ſingular in ointments for old vlcers and fiſtulaes, as alſo in clyſters for bloodie fluxes: the leaues thereof waſhed in cold water, and applied vnto wounds and vlcers either of man or beaſt, doe take away by and by the paine thereof, and doth throughly heale them, as the ſwellings or gaules vnder the ſaddles of horſes that are hurt, if they be renewed euery day, and the horſe needes not to be forborne for all that. Or elſe take the herbe newe, ſteepe it in water, and waſh it, then rub therewith the ſwolne or gauled place, then put the herbe in ſome place where it may quickly rot, or elſe burie it in ſome fat ground, and couer it with a great ſtone; ſo ſoone as the herbe is rotted, ſo ſoone will the ſore be healed.

If you ſpread it all greene in the bed, it killeth fleas, you ſhal keepe powdred porke from wormes, if you wrap it in the leaues of this herbe: the iuice thereof dropped into wormie eares, doth kill the wormes that is in them.

Eiebright

Eiebright. Eiebright delighteth in a leane ground and ſhadowed place, and yet where moiſture is not altogether wanting, ſuch as are the meadowes and little mountaines; it groweth of rootes, not of ſeed. It is ſingular good againſt the dimnes, wateriſhnes, cataract, rheume, and weaknes of the eies, being either applied and laide thereto, or taken inwardly by the mouth: there is a powder made of the dried leaues, which being oft taken by the mouth with the yelke of an egge, or alone, or mixt with aloes, and ſwallowed downe with fennell water, or with water of veruaine, doth comfort and ſtrengthen mightily the weake and diſeaſed eies: ſome vſe much to take wine wherein eiebright hath been infuſed and ſteept a long time for the ſame purpoſe, or the powder vſed with wine, but the powder alone, or the decoction without wine, is a remedie far more certaine, then the wine of eiebright, as I my ſelfe haue prooued by experience, in as much as the wine by his vapours doth fill the braine, and procureth rheumes: and therefore if you would auoid theſe inconueniences, you muſt delay your wine with the water of fennell, or mixe ſugar therewith. *Arnoldus de Villa-noua* affirmeth, that by the continuall vſe of this he healed an old man, which had already wholy loſt his ſight; by the often vſe of the leaues of this herbe as well greene as drie, as well in his drinke as in his meate.

Veruaine. Veruaine as well the male as the female muſt be planted of roots in a moiſt ſoile, and that it may grow the fairer, it requireth to bee remooued, and that into a place of the like nature and qualitie.

Beſides the helpes that this herbe affoordeth vnto weake eies, it is alſo good againſt the paine of the head, teeth, and vlcers of the mouth, and principally in the infections of the skin, as the itch, the tetter, the flying fire, the ringworme, the leproſie, the Gangrena and Sphacelus, if it be vſed in manner of a bath, or in manner of a fomentation made with fumitorie in water and vineger.

Elicampane. Elicampane muſt not be ſowen of ſeede, becauſe the ſeede hath no power to grow: but it muſt rather be planted of the yoong ſprouts pulled gently from the roote, and that in a very well tilled ground and which hath beene manured, not very moiſt, but yet ouerſhadowed. It is good to plant it in the beginning of February, leauing three foote diſtance betwixt plant and plant, for it hath great leaues, and the rootes doe ſpread verie much, as doth the yoong ſproutes or rootes of reede.

The vertues of Elicampane. The wine wherein the roote of elicampane hath ſteept for the ſpace of fower and twentie howers, is ſingular good againſt the colicke, as we haue already ſaid in the firſt booke: the iuice of the roote is ſingular good to continue and keepe the faire and beautifull hew of women. The decoction of the roote is likewiſe good for to reioice the heart and to prouoke vrine, and the termes of women, as alſo to cauſe

one

one to spet out, but then it must be vsed inwardly, and whiles it is new and greene. for when it is old and drie, it is fit to be vsed outwardly, and not to be taken into the body.

Dittander.

Dittander which hath the taste of pepper and mustard (for which cause it is called of the Latins *Piperitis*) must be planted before the first of March, cut as the vine-leeke, but not so oft, for feare it should die with cold. It will continue two yeeres, prouided that it be carefullie weeded and dunged: it continueth in many places whole ten yeeres, and it cannot easily be destroied.

The vertues of dittander.

The roote of dittander stamped with hogs grease, or with the roote of elicampane, and applied in forme of a cataplasme vnto the sciatica, doth cure it throughly. It taketh away the great spots, freckles, and scales or pilling of the face by raising of the thin skin wherein these are fixed, and as for the rawnesse left after the taking away of this skin, it is healed easily with ointment of roses.

Celandine great and small.

Great celandine groweth in euery ground, so that there be shadow for it, and it would be sowen in Februarie, and may so continue ten yeeres, so that alwaies after it hath cast his seed, the stalkes thereof be cut downe within fowre fingers of the roote.

The vertues of celandine.

The iuice of the flowres mixt with honie or womans milke, or some other thing to asswage the sharpnesse of it, doth take away the spots in the eies, drieth vp their scarres and vlcers, healeth the ring-wormes and itch of the head, and the falling of the haire of little children. The Alchymistes doe make great account of it about their extractions of mettals. Some say that the old swallowes doe recouer the sight of their yoong ones being pore-blinde, by applying vnto their eies the leaues of celandine: some say likewise that the leafe of this herbe carried in the shooes next vnto the bare sole of the feete, doth heale the iaundise: being applied vnto the paps, it taketh away the abundance of milke: stamped together with the roote in the oile of cammomill, and being warmed or fried, and applied vnto the nauell or stomacke, it asswageth the frettings of the bellie, and paines of the mother: the whole herbe being dried and made in powder, doth heale wounds and vlcers: the iuice thereof dropt into a rotten or hollowe tooth, mortifieth it and causeth it to fall out: it causeth also the tumor called *Porrum*, to fall away.

Little celandine.

The small celandine otherwise called pilewoort, or the herbe for the kings euill, because it healeth the same, doth grow well in watrie, moist and shadowie places, it groweth likewise in drie places, but not so well, though there it get a more sharpe qualitie: it hath aswell in his leaues as in his roote vertue to heale the kings euill come to exulceration, as also other virulent vlcers, hemorrhoides, cankers, hard tumours, whether scirrous or porracious and other cold tumors, by a mollifying and discussing quality that they haue.

Asarum bacchar.

Asarum bacchar craueth a leane ground and drie, and where there is much shadow, as also rather to be set than sowen. The root of *Asarum* being dried and made in powder, is good to be taken the waight of a French crowne in white wine to cause to vomit, and by this it cureth the quartane and tertian ague: and this is the cause why some in tertian and quartane agues, giue to drinke euery day, or euerie two daies, the quantity of a good goblet full of the decoction of this root, made in wine with honie, putting thereto some cinnamome, mace, and other such spices, by which they purge very much as well vpward as downward: likewise when they feele the fit comming, they chafe the backe and soles of the feet with oile, wherein they haue caused to be infused this roote in the hot sunne-shine, and after lying downe in bed, the shiuerings and shakings of the ague is taken away, and a great sweat procured. The decoction of *Asarum* is good against the sciatica, the infusion thereof in wine doth cure the dropsie and iaundise: the iuice dropt into the corner of the eies, doth heale the web in the eie, and dazeling of the eies: many good women do applie *Asarum* to the wrests of the hands, to driue away the heate of an ague: you must obserue as it were diuers parts in this herbe: for the roote is a prouoker of vomit, and the leaues are aromaticall, and agreeing well with the stomacke.

Valerian.

Valerian groweth very well in a moist and well manured ground, and would be often watered, that so it may put foorth a tall stalke.

The good wiues are wont to apply to the wrests in burning agues the leaues of valerian, but without reason: for the valerian doth rather increase the ague by his heat than diminish it. It will be better to vse it in the paines of the sides, and in the prouoking of vrine and womens termes: if you wet lint in the iuice of valerian, & put it into any wound, made either with arrow, or sword, or otherwise, and the drosse or grosse part thereof laide vpon it, you shall cause the iron to come forth if any such be staied behinde, and so also heale the wound. Cats do delight much to eat this herbe. The decoction is good against venome and the plague: it is good also against shortnesse of breath if there be mixed therewithall, licorice and damaske raisons.

Angelica.

Angelica would be sowen in a well tilled ground, oftentimes wed and reasonably watered.

The vertues of Angelica.

The plague.

The roote is soueraigne against the plague and all sorts of poyson: whosoeuer shall keepe a little piece of it in his mouth, or which shall drinke onely in a winter morning a little draught of wine and rose water, wherein it hath beene steept, he cannot be infected of any euill aire of all that day. Englishmen vse the leaues and rootes of this herbe in sauce with their meats, because it correcteth grosse humours, and a stinking breath, and furthereth digestion verie much. The leaues of Angelica stamped with other leaues of rue and hony and

applied

applied in form of a cataplasme do heale the bitings of mad dogs, and the stinging of serpents: being laide vpon the heade of one that hath an ague, it draweth vnto it all the burning heate of the ague; and it is good against sorcerie and inchantment. The distilled water of angelica, is singular good against the fainting of the harte, the bitings of mad beasts, the stingings of venemous creatures: especially against the plague, if with this distilled water there be drunke halfe a dram of the root in powder, and a dram of treacle, and that afterward the patient giue himselfe to sweating, for by this meanes many haue beene saued. The root put into a hollow tooth asswageth the paine: being chawed, it maketh the breath sweet, and concealeth the smell of garlicke, of any other such meat which causeth an ill breath. *Against the biting of a mad dogge.*

Blessed thistle would be ordered and dressed with such manner of tillage as angelica: It is true that it would be sowen in the increase of the moone, and not aboue three fingers deepth in the earth. It loueth the company of wheat very well. It will not be prickly, if before that you sowe it, you put the seede in the goore of a lettuse, the leaues broken off: or if you breake the sharpe pointed ende of the seede against a stone, after the manner spoken before in the chapter of Artichokes. *Blessed thistle.*

Blessed thistle hath no lesse vertue against the plague, or any other sort of poison than hath angelica, whether you vse it inward or outward. This vertue is it which driueth away moules, and other kinds of such cattell being hurtfull vnto gardens, from the place where it groweth. Such as are troubled with a quartaine ague or other agues, which haue their fits comming with a cold, are cured if they take in the morning three ounces of blessed thistles water, or of the decoction, or the weight of a French crowne of the seede in powder. The same remedy is good for pleurisies, and for children that haue the falling sicknes. If it be boiled in wine, the decoction is good to asswage the paines of the reines and colicke, to kill wormes, and to prouoke sweat. Blessed thistle as well drie as greene taken inwardly or applied outwardly, doth heale maligne vlcers: physitions likewise command it to be mingled in decoctions and drinkes for the pockes. *The vertues of blessed thistle.*

Mother-woort groweth in vntilled and rough places, and standeth not in need of any tilling: notwithstanding it is singular against the beating and fainting of the hart, for which reason it is called of some *Cardiaca*: it prouoketh also womens termes: it taketh away obstructions, and prouoketh vrine: it raiseth flegme deliuering the lungs thereof, by making it easie to be spet foorth; it killeth wormes: dried and made in powder, and the quantity of a spoonefull taken in wine, doth mightily helpe forward the deliuerie of women labouring of childbirth. *Mother-woort.*

Golden-rod would be sowen in a fat ground, which is not open *Golden-rod.*

The vertues of golden rod.

vnto the heat of the Sunne, but hath the ſhadowes of ſome trees, the toppe of a mountaine or ſome other ſuch like thing. It hath a verie aſtringent power, as alſo it is verie deſiccatiue, by which (after the maner of comfrey) it healeth woundes, vlcers, and fiſtulaes, as well inward as outward: it ſtaieth rheumes, and bloodie fluxes, healeth the vlcers of the mouth, and the inflammation thereof. Which is more, it is very ſingular to prouoke vrine and to breake the ſtone.

Saxifrage.

Saxifrage as well the great as the ſmall, delighteth in a drie ground, chalky, claiy, ſandy, ſtony, and altogether barren: and it is ſowen of ſmall ſeedes, which are found hanging to the rootes. It prouoketh vrine, and ſo driueth foorth the grauell of the reines and bladder. If you boile the roote and ſeede thereof in wine, it procureth women alſo their termes, and bringeth out the after-birth.

The great and ſmall burre.

The great and ſmall burre (otherwiſe called *Bardana*, and of the Greekes *Perſonata*) hath not need of any great tilling, for it will growe either of ſeed or root in a leane ground that is drie and vntilled, as we may well ſee in ditches where it groweth without any labour, and in the high wayes and by pathes in the fields.

The rootes, ſeeds, and iuice of the great and ſmall burre, are verie ſingular to prouoke vrine, to breake the ſtone of the reines & bladder, & to ſtay the bloody flux: the iuice is drunk with white wine or alone, and the ſeed in like manner, which is ſometimes for the more pleaſantnes ſake confected or couered with ſugar. The leaues ſtampt with a little ſalt, and applied vnto the bitings or ſtingings of adders, madde dogges, or other venimous beaſts, are very ſoueraigne: the rootes or ſeeds of ſmall burre, ſtampt and layd on cold ſwellings and rebellious ſtrumaies, are very profitable and good.

Star-thiſtle.

Star-thiſtle, ſo called, becauſe it hath little heads at the tops of his ſtalkes (as other thiſtles haue) ſet round about with ſharpe pricks, after the maner of ſtarres: it groweth in vnhusbanded grounds, as well of his root as of his ſeed. Some doe greatly eſteeme of the ſeed made into powder and drunke in wine for to prouoke vrine, and to auoide grauell: and heerein it is of ſo great vertue, as that the much vſe of it doth cauſe one to piſſe blood ſometimes. The decoction of the root with hony, after the maner of a honied water doth the like, but more gently, and without cauſing the partie for to piſſe blood.

Ladie-thiſtle.

Maries thiſtle (otherwiſe called *Spina alba*, or white and ſiluer thiſtle, or wilde artichoke, or aſſe-thiſtle, becauſe that aſſes delight much to eate it:) doth loue a fat and well tilled ground, and other ordering like to that of beetes: and it is as true that it letteth not to grow in vntilled and vnhusbanded grounds. The ſeede and rootes haue as it were the like power to take away obſtructions, to prouoke vrine and to breake the ſtone that ſtar-thiſtle hath. The Italians vſe the rootes thereof in ſallades, after the maner of artichokes, and good

wines

wiues to gather the milke of it for to eate: some make a ptisane with the roote of this thistle made in powder, the seed of fennell and a little long pepper, to giue to nurses to vse, which haue small store of milke: the distilled water of the leaues is good against paine in the sides, being drunke with halfe a dram of the seed of the same herbe.

Siluer-grasse. Siluer-grasse (so called because the leaues doe resemble siluer on the backeside) doth delight in a moist and grassie ground, howsoeuer vnhusbanded it be. It hath one excellent propertie aboue all other herbes, for to breake the stone, to heale vlcers and malignant woundes within the bodie, to staie the bloodie fluxe, and to dissolue cluttered blood being taken in drinke. Some say, that if you put it in halfe a basen full of cold water and couer that basen with another basen or vessell, or other couering, that there will gather great store of vapours in the hollow of the thing couering it, and will turne into the forme of distilled water, and that this water thus gathered, is verie good to take away the spots, freckles, staines and die of the sunne out of the face.

Patience or monkes rewbarbe. Patience doth willingly grow in coole and moist grounds, and we see it ordinarily to grow neere vnto riuers and little brookes. The roote by reason of the great bitternes and desiccatiue power hath singular commendation against the plague: for being dried and powdred and afterward drunke with wine, it driueth away all venome from the heart, by the abundance of sweate which it procureth. Some for this purpose take away the rinde and core of this roote, stamping it in vineger, and after making a drinke of the vineger, the iuice of rue and treacle, for to take in pestilent agues: the powder of this roote drunke with wine, is excellent for the suffocations of the matrix, and the wringing throwes of the belly: this powder also killeth the wormes, healeth maligne vlcers, the falling of the haire called *tinea*: and the kibes, the farcie in horses, whether it be taken inwardly or applied outwardly, either in iuice, or in the decoction thereof.

Scabious. Scabious groweth in the same ground that patience doth, that is to say, in woods, vntilled places, and especially in sandy places.

It is verie proper and appropriate vnto the cough, and diseases of the lungs: for the same purpose also the iuice is sometime extracted, somtime the herbe it selfe made into powder, & sometime the decoction of it is made to indure for a long time: likewise there is sometime conserue made of the flowers: his leaues or rootes applied to itchie places, and the places bare of haire, or mixed with oiles and ointments do great good to the same, as also vnto plaguie carbuncles, for they being rubd with the iuice of scabious, will be found to vanish away within three houres: the iuice of scabious drunke in the quantitie of fowre ounces, with a dram of treacle not yet one daie olde, is a singular remedie against the plague, so that afterward the partie

ſweate in his bed, and withall continue the drinke for many times: the ſame remedie ſerueth for the bitings of venemous beaſts, if beſides the drinke you apply outwardly vnto the ſore, the leaues of the ſame herbes bruſed: a liniment made of the iuice of ſcabious, the powder of borace, and a little camphire, is ſingular againſt tetters, itch, freckles and other infections or defilements of the skinne: aboue all other things the decoction of ſcabious being drunke the ſpace of fortie daies doth heale the tetter throughly, yea though it came of the pockes, as I may ſelfe haue oftentimes prooued by experience.

Rough ſpleen-wort, ſtonewort or finger ferne.

Scolopendrium, or rough ſpleene-woort, called alſo harts-toong, would be planted in a ſtonie and grauelly ground, which is moiſtned with ſome running brooke, and for want of this it muſt be often watered: the rootes thereof muſt neuer bee pulled vp, but onely the leaues cut: for it cannot be ſowen, ſeeing it bringeth foorth no ſeede.

The vertues of ſpleene-wort.

The decoction thereof made in white wine, is very good for ſuch as haue a hard ſpleene, and are ſubiect to a quartaine ague.

Betonie.

Betonie delighteth to be ſowne in a moiſt and colde ground, and neere to ſome wal, by which it may be ſhadowed, for it is not far in loue with the ſunne beames. The roote hath contrarie properties to the leaues and flowers: for the roote diſquieteth the ſtomacke, and is verie vnſauoury vnto the mouth, his leaues & flowers are of a very good ſmell, and a taſte correſpondent and anſwerable.

The properties of betonie.

The decoction of Betonie made in white wine, aſſwageth the paines of the reines, breaketh the ſtone, and healeth the iaundice: the leaues ſtampt and applied in forme of a cataplaſme, do quickly ioyne together the woundes of the head. A cataplaſme made of the leaues with porkes-greaſe, doth ripen the tumours called cat-haires, and all other ſorts of impoſtumes: the leaues ſtampt with a little ſalt, doe heale hollow and cancrous vlcers. To be briefe, this herbe hath ſo many and ſo great vertues, as that the Italian when he would highlie commend a man for his gifts, will ſay that he hath moe vertues then betonie.

Bugula or Bugle.

Bugle would be planted in a ſtonie, drie, and hillie ground: in reſpect whereof the latines call it *Conſolida petroſa*: it craueth no great paines to betaken with it: the leaues thereof are good to conglutinate and ſoulder together both outward and inward wounds: it is likewiſe put in drinkes for wounds: and that is the cauſe why ſome doe commonly ſay; that he that hath bugle and ſanicle, will ſcarce vouchſafe the chirurgion a bugle.

Lyones-paw.

Lions-paw groweth in a clayiſh ground, being withall fat, red and ſomewhat moiſt, commonly in medowes, ſituated in ſome high place. It hath like properties with bugle and ſanicle: but moreouer it taketh away all the paine and heate of inflammations and vlcers. The ſame herbe ſtamped and applied vnto the teates of women and

yoong

yoong maides maketh them hard and firme.

Great comfrey groweth in moist places, and hath the same property that bugle hath, that is to say, to soulder wounds, and this is so great in both of them, as if that you put bugle or comfrey into a pot wherein flesh is boiling, the peeces of flesh will become no more many but one. The roote of great comfrey whiles it is yet greene and newlie pluckt out of the earth, being spred vpon leather or vpon linnen, and applied in forme of a cataplasme, vpon gouty or rheumatike places, doth presently appease the paine of the gowte, being a thing often prooued and tried; the same roote dried and made into powder, is good to put in childrens pappe, which haue their rim broken, as also to stay the fluxe of the bellie. A cataplasme made of the roote of great comfrey, with beane flowre, and applied to the place where the childs guts fall downe, is a soueraigne remedie to cure the same. *Great comfrey.* *Gout.* *Rupture.*

Self-heale craueth a fat ground, and where the sunne beateth not much, it groweth of seeds, and not of rootes, and hath like properties that bugle and comfrey haue, especially to stay the spetting of bloud, the bloudy fluxe, and to conglutinate wounds within the bodie, (where no man can come to apply tent or ointment) if there be made a drinke of the iuice of the rootes and leaues thereof, which being chafed in your fingers or put vnder your toong, doth smell and taste like myrrhe. *Self-heale.*

Water germander (called of the Latins *Scordium*) groweth very easily, and without great paine or toile, so that it be planted by little slips taken from the old stalke, and set in a moist ground: for it specially requireth (to grow well) to be planted in a moist ground, and to be often watered. It hath the like qualities that angelica hath against poison & the plague; and furthermore the decoction therof taken as a drink for certaine daies, doth heale the tertian agues, and putteth away the obstructions of the spleene, and prouoketh vrine. *Water germander.* *The vertues of germander.*

Fole-foote must be planted in a very moist place, and craueth to be often watered, for so it appeareth when as it is seene to flourish and like best in marish grounds and about currents of waters. There groweth a whitish mosse about the roote of it, which if you gather and picke very cleane, and afterward wrap it in a linnen cloth with a little sal nitrum, and so boile it a little in lee, and afterward lay it to drie in the sun: you shall haue an excellent match to take fire at a flint and fire steele, for it taketh fire so easilie, that it will light at the first stroke of the steel. Amongst other vertues it is singular good to comfort the lunges, and parts aboue the breast, whether you take it in a decoction, or in a syrupe, or in maner of a fume at the mouth, or otherwise; especially if you mingle some slips of hyssop and some figges, or syrupe with the said decoction; the great colts-foote, especially the *Fole-foote.*

roote thereof dried, powdred, and taken in the weight of two drams with wine is singular against the plague, if so the partie sweat presently after. It is good also to giue vnto horses which haue the bots or are short winded.

Carline thistle. The great and small Carline (so called as though it were Caroline, because this thistle was in a diuine maner made knowne vnto *Charlemaine* by an angell for the deliuering of his hoste from the plague which did miserably annoy them) doth require to be sowen and planted in a drie ground and stony, and where the moone, and sunne, doth shine pleasantly.

The roote of the great Carline made into powder, and taken the weight of a French crowne, is singular good against the plague, the feeblenes and faintnes of the heart, for the keeping of the vrine, the breaking of the stone, the paines of the sides, and conuulsions: applied outwardly after it hath been stept in vineger, it helpeth the sciatica.

Hundred headed thistle. Eringium. Sea hollie. Eringium groweth in an vntilled, rough and drie ground. The wine wherein the rootes of eringium haue beene boiled, prouoketh the termes and restrained vrine, breaketh the stone, and casteth out it and grauell: it is good for such as haue the falling sicknes, dropsie or iaundise: the decoction of the root is singular good to resist drunkennes: the distilled water of the yoong buds of the leaues being drunke euerie day, and that so oft as one can, is marueilous good for them which haue their bodies troubled with vlcers caused of the french pockes, in asmuch as it comforteth the liuer: the same water is verie profitable for the quartaine and quotidian agues: the roote thereof taken either in powder or in a decoction with the broth of those frogs which are vsed to be eaten, or for lacke of frogs in the decoction of a gosling or greene goose, is a preseruatiue against the poison of the toad, hedgefrog and other venemous herbes: it doth good also in the diseases of the hart, being drunk with the decoctiō of buglos or balm.

Beares-breech. Beares-breech called of the Latins *Acanthus* groweth in stonie and moist places, although it loue to be diligently tended or otherwise not to yeeld any profit. The root and leaues are very mollifying: taken in drinke they prouoke vrine: and applied in forme of a cataplasme they are good against conuulsions, wrenches, and contractions of the ligaments: they are to good effect vsed in the clisters of them which haue the dropsie.

Diuels-bit. Diuels-bit (so called because it sheweth as though the middle or the hart of the roote were gnawed or bitten by some diuel, so soone as it is planted or hath put vp in any place) (as though the diuell did enuie the good which it bringeth vnto men by the incredible vertues that are therein) craueth no great husbandrie, neither yet any fatte earth or verie moist: for as we see it groweth vpon mountaines, in bushes, and places altogither barren: it is true that it groweth also in

medowes,

medowes, but yet ſuch as are not verie moiſt. It is found in great abundance in the medowes of *Verriere* a borough neere vnto *Paris*,

The roote and greene leaues being ſtamped togither and applied vnto carbuncles and peſtilent Buboes, do heale them: the wine wherin they haue boiled is drunke with good ſucceſſe againſt the plague: and againſt the griefes and ſuffocation of the mother: the powder of the roote is verie good againſt wormes.

Cinquefoile (ſo called becauſe of the fiue leaues which it beareth) craueth a low, wateriſh, and ſhadowed ground: it groweth alſo in drie and grauelly places. The decoction of the roote vſed for a gargle, doth aſſwage the toothach, and heale the vlcers of the mouth: in a cliſter it ſtaieth all manner of fluxe of the belly, as well the bloodie fluxe as others: taken as a drinke it is ſingular againſt the iaundiſe, the ſtopping of the liuer, and againſt a peſtilent aire and poiſon. *Cinquefoile.*

Tormentill (like in ſtalke vnto cinquefoile, but vnlike in number of leaues, in as much as it hath ſeauen) delighteth in the ſame ground that cinquefoile doth, though not altogither ſo wateriſh, and called tormentill becauſe the powder or decoction of the roote doth appeaſe the rage and torment of the teeth: is ouer and aboue all other remedies moſt ſingular, againſt the plague, and againſt the furie of all poiſons and venomes: it ſtaieth likewiſe all fluxes of blood, whether it be ſpetting or menſtruous, or of the belly, all vomiting and vntimely birth, whether it be taken inwardly by the mouth, or applied outwardly, or whether it be taken in ſubſtance, or the diſtilled water onely. *Tormentill.*

Peruincle delighteth in a ſhadowed and moiſt place: we ſee it grow likewiſe in willow grounds, hedg-rowes, and outſides of woods. *Perwincle.*

The leaues as well in decoction as otherwiſe do ſtay all manner of fluxe of the bellie, or ſpetting of bloud or otherwiſe, as the monethly termes, and whites, conuenient purging hauing gone before, and bleeding at the noſe, if you bruiſe the leaues and put them in the noſe: or if you make a coller thereof to put about your necke, or a garland for your head: or if you put them vnder and about the toong: after the ſame manner, you ſhall ſtaie the monethly termes, as alſo preuent vntimely birth, if you applie them vpon the grines.

Biſtort, aſwell the great as the ſmall, doth delight in a moiſt, wateriſh, and ſhadowie place: it groweth alſo in high mountaines. The roote thereof doth ſtaie all manner of fluxes, as the termes and vnwilling ſlipping away of the vrine, if it be drunke with the iuice or diſtilled water of plantaine, it ſtaieth the fluxe of bloud comming of a wound, if the powder of it be caſt vpon the bleeding wound, it ſuppreſſeth cholericke vomits, if it be fried with the whites of egges vpon a red hot tile, and be eaten by and by. It is ſingular good aſwell in the decoction, and ſubſtance, as in the diſtilled water againſt all venome: *Biſtort.*

nome : as also against the plague : against wormes in little children : against the measels, purples, and small pockes in yoong children : against the bloudy flux, and all manner of falles : against the paine and rheumes of the teeth, if you put it into the hollow tooth with a little allom and pellitorie of Spaine.

Pionie. Pionie, aswell the male as the female, craueth to be planted or set in drie ground where the sunne hath his full force. The seed or root gathered in the wane of the moone and hanged about the necke, or applied vnto the wrests alone, or with the misseltoe of the oake, is a very singular preseruatiue against the falling sickneſſe : whereunto notwithstanding I would not haue thee so much to trust, as that thou shouldst not looke after some other remedy: assure thy selfe rather that it is singular in bitings and stingings that are venemous, aswell taken inward as applied outward : thirty seeds of pionie husked and braied, and the very kernell made into powder and drunk with wine, doth fetch again the speech when it is lost.

Paules betony. Paules betony both male and female, would be either sowne or planted in the very same ground with pionie. This herbe, especially the female, is very much commended for his vertues: for the iuice that is presſed out of his leaues, and the water that is distilled thereof, doth heale all sorts of wounds, aswell new as old : all sorts of vlcers, whether maligne or cancrous : swellings, and hot tumours, itch, and all the diseases of the skin ; and which is more, the often vse aswell of the iuice as of the distilled water of Paules betonie, doth perfectly cure the leprosie : whereof we haue a notable and famous testimony of a French king, who thereby was throughlie cured thereof. And this is the cause why this herbe is called the lepers herbe. Some doe make a balme thereof (as we will further speake in the chapter of balmes in the third booke) which is singular aboue all others, for all sorts of wounds and maligne vlcers, as also for the leprosie : and that it is so good, is prooued, for that a certaine person well knowne vnto me, hauing a virulent vlcer, in manner of a Polypus in his nostrils, of the cure whereof, many aswell phyſitions as surgions, being excellent men, and dwelling in this towne, did altogether despaire, was notwithstanding woonderfully cured by the application of this balme, and often vse of potions made of the decoction of the leaues of the female Paules betony. This herbe is singular also in clysters for bloudy fluxes ; and in drinkes for pestilent feauers, vlcers of the lungs, and obstructions of the liuer and spleene.

Gromell. Gromell is the same which we call in Latine *Milium solis*, and it groweth better being sowne than planted, it delighteth in a drie and vntilled ground, being withall stony and hauing a good aire.

The iuice of the leaues and powder of the seed being drunke with wine, hath a singular vertue against the grauell and stone, and procu-

ring

ring of the vrine to passe away: there is nothing more singular for the burning of the vrine, then to drinke many mornings the seede of gromel, to the quantitie of two drames, ceterach halfe a dramme, and amber two scruples: all being powdred with the iuice of plantaine, or purcelaine, or lettuse: in like manner two drames of the seed of gromell with womens milke, doth much comfort and strengthen a woman in her childbirth.

Saint Iohns wort.

Hyporicum loueth the like intreatie that gromell loueth, and yet withall it doth refuse a fat and well tilled soile. The iuice of the leaues and flowers healeth cuts and woundes: the seede drunke with white wine, taketh away the tertian ague: the flowers and crops are principally in vse to make balmes of for the curing of wounds, such like as this is. Take of the fruite of the elme tree, the flowers of hypericum, and the buds of roses, put them all together in a glasse bottell, and set them in the sunne, so long, as vntill you see them all so altered and changed, as that they may seeme to be rotted: then straine them all through a linnen cloth, and reserue it for your vse: see further in the third booke of the oile of hypericum.

The balme.

Ground-pine.

Ground pine loueth a drie, sandie, and stonie soile, and groweth better planted then sowen: the whole herbe boiled in honied water, doth heale the iaundise, prouoke the termes in women, prouoke vrine, and is soueraigne against the sciatica, either taken in drinke, or applied vpon the hippe in forme of a cataplasme: for the whole herbe with the flowers and rootes made into powder, and taken at the mouth fortie daies with halfe an ounce of turpentine, doth throughly heale the sciatica: the conserue made of the flowers is good for such as are subiect vnto the palsie: the whole hearbe boiled in vineger, and taken at the mouth, doth minister infinite helpe to a trauailing women, when the childe is dead in her bodie.

Agrimonie.

Agrimonie would be planted in a stonie and drie place, and further, craueth no great helpe of hand or husbandrie. The decoction openeth the obstructions of the liuer, and strengthneth it: and it being boiled and drunke, doth helpe against the bitings of venemous beastes: the iuice of agrimonie mixt with vineger and salt in a liniment, doth cure the itch: agrimonie is good a gainst the cough of sheepe, and for broken winded horses. The liquor of the decoction of agrimonie with fumitorie made like whaie, doth prouoke vrine, expell the termes, heale the itch and scab of the whole bodie: whereupon it is singular in the beginning of the leprosie: the seed mixt with the iuice of agrimonie, and taken in manner of pilles, doth kill the wormes; the stagge being shot and wounded, is healed so soone as he hath eaten of this herbe.

White mullein.

White mullein groweth euerie where: but best in a stonie and sandie ground. The white mullein both leaues, flowers, rootes, and seede,

ſeede, is ſingular good againſt all manner of venome: as alſo to containe in his place the falling fundament: good wiues in like manner for this conſideration do make a fume of the ſeed and flowers of mullein, the flowers of camomill and maſticke, all made into powder: the iuice preſſed from the roote before it put foorth his ſtalke, and drunke fowre times in the quantitie of an ounce, with hippocras or malmeſey in the beginning of a fit of a quartaine feauer, doth driue it quite away: the iuice preſſed out of the flowers or leaues, applied to warts, doth take them cleane away. Likewiſe gentlewomen finde no better remedie then the iuice of white mullein flowers, to take awaie the wrinckles and other blemiſhes in their face. The leaues bruſed betwixt two ſtones, and applied in forme of a cataplaſme vpon the foote of a horſe that hath beene cloied, doth affoord him a ſingular and preſent reliefe. The water diſtilled of the flowers, quencheth the firines of the face if there be a little camphire added thereunto: it doth in like manner with the tumour called Eriſipelas, the itch, burnings, and other diſeaſes of the skin: the flowers of white mullein with the yolke of an egge, crums of bread, and the leaues of leekes, applied vnto the hemorrhoides, doe ſtay them altogither. There groweth about the leaues of white mullein a whitiſh moſſe, which is good to make match or tinder to take fire.

Mercurie. Mercurie craueth one and the ſame ground with the vine, there to be ſowen and grow in great abundance, without any great care of husbanding: and yet there muſt care and regard be had not to ſowe it among vines, becauſe the wine which the vines ſhoulde yeeld amongſt whom mercurie hath beene ſowen, would retaine the taſte of mercurie, and become very vnpleaſant to drinke.

The vertue of mercurie. The iuice of mercurie being drunke, helpeth conception, prouoketh womens termes, and deliuereth them of their afterbirth: the decoction of mercurie doth looſe the belly, being drunke or taken in a cliſter. Some make a honie of the iuice of mercurie, with a halfe quantitie of honie, and this is good for laxatiue cliſters: the iuice of mercurie taketh away warts: the ſeed of mercurie in a decoction with wormewood doth cure the iaundiſe: and the iuice thereof with vineger, doth ripe vp the ſcab and ſcurffe.

Milfoile. Yarrow doth grow in a ground that is indifferent fat and moiſt. The decoction thereof doth ſtay all manner of fluxes and eſpeciallie the red tearmes of women, as alſo that which commeth of a wounde, eſpecially the leaues dried, made in powder and drunke with the iuice or water of comfrey or plantaine: the leafe put into the noſe, ſtaieth the bleeding, and put into a cliſter it ſtaieth the bloodie fluxe. Milfoile bearing a white flower, being pouned with his flower and drunke with water diſtilled from the ſame, and goates milke, doth cure the burning of the vrine in men and the whites in women.

Danewort

Danewort groweth better planted than ſowen, and craueth a fat ground, well manured and ſomewhat moiſt. *Danewort.*

The iuice preſſed from the rootes of danewort being drunke for a certaine time, preſerueth a man from the gout. The ſeed of danewort being well waſhed and drunke in powder to the quantitie of a dram, hauing been firſt ſteept a whole night in wine, doth helpe the dropſie, becauſe it procureth ſtooles do wnward and vomit vpward, to the voiding of great ſtore of water: being drunke alſo with the decoction of ground pine, it aſſwageth the paine of the gout and pockes. There is alſo made a ſoueraigne ointment of the ſame for the appeaſing of the ſayd paines. Take the iuice of the roots of danewort, the flowers of rie, and freſh butter, of ech alike, mixe all and let them worke together in an earthen pot ſet in the ouen, with this ointment rub the aking parts: or elſe infuſe the flowers in oile with mans greaſe ſet in the heat of the Sunne. Some alſo make an oile of the ſeeds preſſing it forth of them.

Orpin groweth for the moſt part in moiſt and ſhadowie places: the countrey people doe by their good wils plant it vpon Saint Iohns night in diſhes or vpon trenchers of wood, in ſome cleft of a wall, the foote being thruſt into clay, and there they ſet it, where it abideth a long time greene, growing and flouriſhing if it be now and then watered. The liquor of the decoction of the leaues is a ſoueraigne remedie to heale wounds and ſtay fluxes of bloud: for inward wounds and vlcers, and for burſtings and ruptures. *Orpin.*

Goats-beard groweth very well in a moiſt ground and ſhadowed, and craueth to be oft watered. The Latines call it *Vlmaria*, becauſe the leaues are like to the leaues of elme. The root & leaues made in powder, do cure the flux of the belly and bleeding: the diſtilled water being drunke, is ſingular good for wounds both inward and outward. *Goats-beard.*

Ground-iuie groweth likewiſe in a moiſt and ſhadowed place. The decoction of the leaues hath great power to take away the obſtructions of the liuer and ſpleene, to prouoke vrine, and the termes in women: there is made of it an excellent balme for newe cuts and wounds: alſo for the collicke miniſtred in clyſters, or taken in drinke, putting the ſmall chopt leaues into a glaſſe-viole well ſtopt with gummie wax, and ſtrong parchment, & ſetting the ſaid viole in horſe dung for the ſpace of fortie dayes. The iuice thereof with the ruſt of braſſe is a fit medicine for fiſtulaes and hollow vlcers: the decoction thereof with betonie, pimpernell, mouſe-eare, biſtort, horſetaile, tormentill, red colewoorts, and dittander, is ſingular for wounds in the principall and inward parts, if it be oft vſed. *Ground-iuie.*

Hounds-tongue groweth eaſily in pebly and vntilled ground. The leaues pouned and applied vnto burnings, the wilde-fire, old vlcers, woundes, and inflammations, aches, fluxes, and hemorrhoides, doe very much good: there is made a ſingular ointment for wounds, *Hounds-tongue.*

of

of the iuice thereof, with honie of roſes and turpentine: there are alſo made thereof pilles, to ſtay vehement and violent rheumes.

Adders-toong. Adders-toong doth require aboue all other things a fat place well tilled and moiſt: it groweth alſo in medowes, but it is deſtroyed by and by and ſpoiled. The leaues ſtamped and applied vnto burnings, inflammations, burſtings, and principally vnto wounds and maligne vlcers, are of a maruellous effect: there is a balme made of the leaues thereof for the ſame effects: whereunto ſome put turpentine: redde wine wherein this whole herbe hath beene ſteeped, is good to ſtay rheumes falling downe vpon the eies.

Gooſe-graſſe. Gooſe-graſſe doth grow in any kinde of ground, and hath no need of great tillage. Some do diſtill the water of it, which is ſingular good againſt the pleuriſie and other paines of the ſide, being taken in the beginning of the diſeaſe, as alſo againſt the bitings and ſtingings of venemous beaſts, and to coole the heate of cankers.

Of corne-roſe or wild-poppie. Corne-roſe craueth a fat ground and well tilled, ſuch as are corn grounds, wherein we may ſee them grow faire and verie well blowne. The flowres of corne-roſe aſwell the great as the ſmall, either in decoctions or the diſtilled water, or in ſyrups, or in powder, the weight of halfe a french crowne, are ſingular means to prouoke ſpetting in pleuriſies, and to cure the ſame.

Baſtard dittanie. Baſtard dittany in like manner requireth a fat ground and well tilled, and therewith a diligent care to water it, and to keepe it from the coldneſſe of the aire. The ſeed, root, leaues and flowres, aſwell in powder as in a decoction, do prouoke vrine, breake the ſtone, prouoke the monethly termes, caſt out the dead conception and afterbirth: being eaten with rubarbe, they kill and caſt out the wormes: the iuice applied outwardly, doth draw foorth thornes and thiſtles, and ſtumps of ſplints.

Knot-graſſe. Knot-graſſe is called in Latine *Polygonum*, it groweth by the edges of vineyards and fieldes that are badly tilled, eſpecially when it is a moiſt yeere. Amongſt the principall vertues thereof, the diſtilled water is ſoueraigne againſt the difficultie of vrine, as I haue oft prooued by experience.

Salomons-ſeale. Salomons-ſeale muſt be ſet in a drie ground, and raiſed high: the roote whiles it is new being pouned, or the iuice of the ſame, wipeth out freckles, ſpots, blew markes of blowes, falles, or other ſuch like thing, whether they be in the face or in any other part of the bodie: ſome diſtill the water which is very good for the paintinges of women.

Great and ſmall dragons. Great dragons muſt be planted in a ſhadowed place, and good earth, the ſmall dragons loue a moiſt ground and wateriſh, as neere vnto the fountaine in the garden. Their rootes boiled, or roſted and mixt with honie, and afterward taken as an eclegme, do profit greatly

for

for shortnes of breath, difficult and hard coughes, and painfull getting vp of the spettle : in such sort as that they cut ripen and waste the grosse humours and slimie : being powdred and mixt with hony, they heale maligne and corroding vlcers, especially the Polypus : their leaues spread vpon cheese, doe keepe them from spoiling and rotting.

As concerning the nettle, it hath no neede either of sowing or setting, for it commeth vp in gardens more than one would haue it : notwithstanding it is not without his great vertues, as well the Greeke nettle, as the Hungarian or dead nettle. *Stinging and dead nettle.*

The leaues and especially the roores of dead nettle stampt and put vpon the nostrils, doe stay the bleeding of the nose, and their iuice rubd vpon the brow doth as much : the leaues of the stinging nettle stampt with a little myrrhe, and applied vnto the nauell in forme of a cataplasme, haue great power to prouoke the termes of women. Their iuice drunke a certaine time prouoketh vrine and breaketh the stone. A liniment prepared with the leaues of nettles, salt and oile, doth defend the partes of the body from all cold and staruing, how great so euer it might proue to be, if so be that you rub the ridge of the backe, the soles of the feete, and the wrests of the hands therewith : likewise the iuice of this nettle mixt with a little populeon, and applied vnto the wrestes, appeaseth the great heate of agues : the leaues beaten and mixed with oile of violets of poppies, and applied vnto the wrests doe alike : the vapour of the decoction of nettle seede, doth take away the stuffing of the nostrils. Such as haue the cough with a great ratling in the throate, cannot meete with a better medicine to make them spet out lustily, than to take with some pectorall syrupe or decoction, the waight of halfe a French crowne of nettle seede finely powdred : you must furthermore obserue this vertue in nettles, as that if it bee put into a pot wherein is flesh boiling, it will cause the flesh to be the sooner boiled. *Dead nettle.* *Haste in boiling of flesh.*

Staueſacre must be sowen in a place reasonably drie and shadowed. The seed chawed and held in the mouth, draweth vnto it by his heat, great quantitie of moisture ; stampt and mingled with oile, it drieth vermine out of the head and other parts of the body, it cureth skurinesse and itch ; steept in vineger and held in the mouth, it asswageth the tooth-ach. *Staueſacre.*

There is not any neede of great care to be taken in sowing the great, small or middle plantaine, for they grow euery where ; and yet they must be esteemed by reason of their vertues. The iuice of plantaine leaues or roores presſed out, and drunke two howres before the fit to the quantity of two ounces, doth asswage the tertian feauer ; the leaues of plantaine stampt with the whites of egs doe heale burnings. An emplaister made of the iuice of plantaine, the white of an egge, and *Plantaine.*

and bole armoniacke, applied vnto the browes, doth ſtay the bleeding of the noſe.

Horſe-taile. Horſe-taile as well the great as the ſmall requireth a very moiſt ground, as neere to ſome poole or ſhadowed place. The decoction thereof in wine or water doth ſtanch bleeding and all other fluxes, whether it be the bloudy, or any other ſuch: the iuice put into the noſtrils doth ſtay the bleeding of them, and with a peſſarie put vp into the necke of the matrix, it ſtaieth the fluxe thereof.

Pellitory of the wall. Pellitory craueth no great care or tillage, for it groweth naturally neere vnto wals: a cataplaſme made of pellitorie, and the greaſe of a male or female goat, is a ſingular remedy for the gout and ſlidings or fals: the leaues of pellitory fried with freſh butter or capons greaſe, and laid in forme of a cataplaſme vnto the belly, doth aſſwage the paine of the colicke: the iuice mingled in like quantity with white wine and oile of ſweet almonds newly drawen, doth aſſwage the paine and torment of the ſtone. A cataplaſme made of greene pellitorie, ſtampt with crums of bread, and oile of lillies, roſes, or cammomill, doth reſolue apoſtemes hapning in the breaſts: it is good for mollifying clyſters and bathes that are deterging.

Shepheards pouch. Shepheards pouch, groweth in all ground, but principally vpon the ruines of old wals and neere vnto wals. The decoction of this herb in raine water with plantaine and bole armoniake, being drunke certaine mornings, or taken in clyſters, doth ſtay the bloudy flux, and the ſpetting of bloud: a bathe prepared with the decoction of the leaues ſtaieth the exceſſiue fluxe of the termes. The iuice doth heale greene wounds, and being dropt into the eares doth drie vp the vlcers of the ſame: the leaues ſtampt and applied in forme of a cataplaſme, doth kill inflammations and the wilde fire: the leaues eaten do ſtay all ſorts of bleeding being put into the noſtrils, as alſo holden in the hand, they ſtay the noſe from bleeding.

Sow-bread. Sow-bread deſireth a ſhadowed groũd, as vnder ſome tree or buſh, which muſt notwithſtanding be fat, and well tilled to feede the roote thereof, which is full, groſſe, ſolide, and as it were like vnto the turnep: the forreſt of *Orleance* is well ſtored and repleniſht with this herbe.

The vertues. This is a thing to be maruelled at, that the iuice of the roote of ſowbread, ſnuffed vp into the noſe purgeth the head; and the diſtilled water thereof, ſnuffed vp alſo into the noſtrils, doth preſently ſtay their bleeding: the ſame water drunke to the quantity of ſixe ounces, with an ounce of ſugar, doth preſentlie ſtay the bloud running downe from the breaſt, ſtomacke or liuer, and knitteth together the veſſels therein if any be broken, which I my ſelfe haue prooued and tried: two drams of the iuice drunke with honied water doe looſen the belly, and free the liuer from obſtructions, as alſo the ſpleene: in reſpect whereof it is ſingular good for the dropſie and iaundiſe, but

you

you muſt mixe with it a little maſticke or nutmeg, or rubarbe, for to correct the vehemencie thereof: it is incredible what eaſe the iuice thereof worketh in the colicke, and other ſuch like griping pangs, if it be put into clyſters, how greatly alſo it profiteth in ointments, liniments, and cataplaſmes, appointed for the hardnes and ſwellings of the ſpleene and liuer: if you infuſe the roots chopt ſmall in the oyle of roſes or cammomill, or ſweet almonds, and afterward boile them together, putting thereto a little wine, in the ende you ſhall preſſe them out: this oyle dropt by two or three drops into the eares, doth driue away the noiſe and deafenes of the eares, eſpecially if vpon the eares, you apply the droſſe of theſe rootes at night at the parties going to bed: or elſe chop ſmall the rootes, ſtamp them with peaches & bitter almonds, ſteep them all in aqua vitæ: afterward ſtraine them, and drop certaine drops of that which ſhall be preſſed out into the eares: this is verie ſoueraigne for deafnes and the noiſe of the eares.

Crowfoote, although there be ſixe kinds of it, yet they all loue a moiſt and marriſh ground, and whereas the frogs delight to liue, which alſo take pleaſure in and tumble themſelues about this herbe: it is true that ſome of the ſorts doe loue theſe moiſt places more then other ſome: for the crowfoote that hath a double flower, not very yellow, but ſomewhat red, and which appeereth only in autumne, cannot grow in a verie moiſt place, ſo as it doth in the drie medowes, and in places a little moiſt: contrariwiſe that which beareth a ſingle floure of a yellow and golden colour, cannot grow but in ſome waterie medowplot, and neere vnto ſtanding water. The other which beareth a double flower not very yellow, hath a bulbous and whitiſh roote, of a ſharpe taſte: this ſame (as well the leaues, but ſpecialy the roote) being applyed vnto any part, is as cauſticke as pigeons dung, or the cauſticke ſtone, or any other the moſt violent cauterie that may be found: for though you put betwixt the fleſh and the herbe a linnen cloth fiue or ſixe duble, yet it will not leaue to cauterize and pearce deep euen vnto the fleſh: this is the herb which being ſteept in dragons blood, the curſed rogues and wicked rouers vp and downe, doe rub their armes, legs, and thighes withall, thereby to exulcerate them, that ſo they may moone the people with remorce, and ſo get the larger almes: this is the herbe which *Siluius* calleth Crowfoot, and which is ſo much eſteemed for the plague and plague ſore called a Carbuncle. Take (ſaith he) crowfoot (hauing a roote like vnto a ſmall flat onion:) this root either alone if it be big ynough, or two or three of thē ſtamped & laid vnto the thomb of the hand that is on that ſide in the arm, whereof the plague is broken out; or vnto the great toe of that foot, that is on the ſame ſide that the grine is that hath the plague ſore, and there leaue it fower and twentie howers, and it will make bliſters, which breaking of themſelues do let run out the matter of the plague

Crowfoote.

drawen thither by a veine common vnto both parts: but because that this roote is very strong, you must put betwixt it and the thombe, fowre or fiue doubles of new and strong cloth, or sixe or seuen of thinne and worne cloth, and so couer it and binde it vp: and afterward you shall heale the vlcer of the thombe with the yelkes of egges and fresh butter, bet together with a litle of the middle comfrey stamped with them, or a little washt aloes. And if you cannot haue it new, the drie is also good for the same purpose, but then you need not so many doubles of cloth betwixt them: this operation and worke is quickly done and certainely, without bloud letting or other euacuation.

Pettie-whin. Pettie-whin, groweth in euerie ground, whether it be medow, plowed land, drie, scorched, moist, tilled or not tilled. The husbandman doth greatlie abhorre this herbe, whereof he cannot by any meanes rid his grounds: the roote is singular as well in powder as in a decoction, or in the water distilled from it (so that before it be distilled the roote be steept in malmesey twise so much as it weigheth) for to prouoke vrine, womens termes, and to procure the opening of the obstructions of the spleene and liuer: but aboue all to breake into powder and driue foorth the stone, as also to waste such carnosities as may be begotten in the bladder and conduit of the yard. The powder must be taken with white wine. There is also made a kinde of wine of this roote during the vintage time, with new wine and white grapes put into a vessell adding thereto a certaine quantitie of winter cherries.

Dittanie. The dittanie of this country groweth in a drie ground being also stony and open vpon the sun. The roote is much commended against poisons and venoms, wormes in children and cold diseases of the matrix: being taken inwardly by decoction, or in powder with wine the weight of two drams, or applied, or ministred in a fume, it moueth the termes in women: it bringeth foorth the afterbirth and dead child: it also driueth out the stone from the reines: but principally it is good for the pockes, taking it euerie morning a long time, the weight of a dram with the decoction of *Guaiacum*: it is profitable also against the plague, euery way that one can vse it.

Germander. Germander (called of the Latines *Chamædrys*, that is to say, a small oake, because the leaues are like to those of the oake) requireth no other ground or manner of ordering than dittanie. This herbe is called the feauers scourge, because the decoction therof being drunke in the morning for a certaine space, doth driue away and make an end of tertian agues: the leaues eaten in a sallade in the morning fasting, it preserueth from the aire and pestilent contagion, no lesse effectually than water germander, of which we haue spoken before. The decoction thereof is singular good against the iaundise, and be-

ing vſed a long time for the falling ſickneſs, headach, and other diſeaſes of the braine, and for the wormes.

Rupture-woort groweth in a grauelly or ſandie ground which is drie and vnhusbanded: there is likewiſe great ſtore of it found in the wood of *Bolion*, neere vnto *Paris*. This herbe made in powder and drunke with wine, prouoketh vrine that hath beene long detained, and breaketh the ſtone of the raines and of the bladder, if for ſome long time the partie take the weight of a dram. *Fallopius* a great and famous Chirurgion in *Italie*, affirmeth that he had cured an infinite number of perſons of the rupture therewith, giuing it them in drinke for a verie long time together. *Rupture-wort.*

Mouſe-eare will grow in the ſame ground that rupture-woort doth: it hath a verie ſtrong aſtringent qualitie: and that is the cauſe why ſhepherds haue no great affection to draw their ſheepe into ſuch fields, as haue ſtore of mouſe-eare in them, becauſe it bindeth them in their bodies, which for the moſt part worketh in them vnto death: likewiſe Phyſitions are wont to make their benefit of this herbe in the bloodie fluxe, and abundance of termes: as alſo to heale vp both inward and outward wounds, the ſpetting of blood, and falling downe of the fundament. *Mouſe-eare.*

Dogs-graſſe without ſetting or ſowing, groweth more then one would wiſh both in gardens, and alſo in corne grounds that are fat. It ſerueth in Phyſicke to coole and drie indifferently: and withall (notwithſtanding this) to open and take away obſtructions, and to expell and breake the ſtone: it is true that the ſeed drieth more, but it bindeth ſomewhat. *Dogs-graſſe.*

Water betonie groweth in moiſt, watery, and marſhie places. Of the roote thereof gathered in autumne and made verie cleane, and ſtamped with freſh butter, all being cloſed vp in an earthen veſſell well leaded and ſtopt, and the ſame veſſell ſet in ſome moiſt place, and let ſtay there ſome fifteene or twentie daies; after let the butter be melted vpon a ſoft fire and in the ende ſtrained: is made an ointment that is ſingular good to rub and annoint the kings euill withall, and the hemorrhoides: this roote is ſet about with many ſmall knots, hauing the reſemblance of hemorrhoides or the ſwelling of the kings euill. *Waterbetonie.*

It groweth without anie great paine in gardens, and being ſowen groweth more aboundantlie then one would haue it. The ſeede purgeth thoſe that haue the dropſie verie much, if they be giuen in whay: it is true that they maie be vſed without annoiance done to the ſtomacke, if it be parched and dried, as alſo mixt with aniſe and fennell ſeede: furthermore it is good to ſet in gardens, to kill and driue away moules. *Palmachriſti.*

This herbe is of two ſorts, male and female: both of them will grow in all manner of earth, but principally in that which is moiſt. *Ferne.*

The vertues Neither the one nor yet the other doth beare any seede, as writers record : notwithstanding it hath beene tried, that the male beareth seede, and that it cleaueth to the hindermost part of the leaues, but yet so little, that hardly can a man see it, and which cannot be acknowledged, or gathered but in the end of Iuly, which is the time when it is ripe : for to gather it you must cut the leafe neere vnto the roote, and then hang them vp in your house, spreading a linnen cloath vnder them, or else some faire cleane white paper : I knowe well that the common sort doe verily thinke and auerre, that this seede cannot be gathered but on the night of the wakes of *S. Iohn* in sommer, and that more is, not without great ceremonies and mumbling and muttering of many words betweene the teeth, which haue power to driue away diuels, which haue the custodie of the same seede : but all this is nothing but fables.

The decoction thereof is good to prouoke womens termes, to cast out the dead childe, to kill wormes, and some doe vse it to heale the frettings or hurts that may be in the fundament fallen downe: but especially the female.

Herbe two-pence. Herbe two-pence (so called because the leaues resemble small peeces of siluer) requireth no great peece of husbandrie about it, saue onely that it would haue a moist ground. The whole herbe either in decoction or powder, but especially the water thereof distilled in a limbecke, is very singular good for the falling downe of the fundament.

Fleawort or fleabane. Fleawoort (being called of the Latins *Psyllium*) craueth a very fat, well manured and battled ground, for else there will no good come of it. The seede prepared in forme of a mucilage, and applied in vineger doth kill the wilde fire and tetter : applied vnto the head or browes it taketh away the paine thereof : it taketh away also the rednes of the eies being applied thereunto. The distilled water is of infinite goodnes seruing in the paines of the eies, two or three drops thereof onely being dropt into them.

Fumitorie. This herbe requireth a verie fat place, well manured and tilled: likewise we see it grow abundantly in vineyardes and groundes for wheat and barlie. The leaues are verie singular good for the opening of the liuer, and cleansing away of adust humours, and this also is the cause why physitions prescribe it with whay, in scuruie, scabbed and itchie cases, and where the leprosie is. The iuice thereof is good to cleere bleared eies.

Ground-swell. Groundswell groweth iu euerie ground, and without any great care: we see it growe likewise neere vnto walles, and vpon the townes walles : it is greene all the yeere, and flourisheth as it were in euery moneth, and this is the cause why the Italians call it euery monethes flower. Some thinke that groundswell distilled is very singular good for

for the whites in women : but beleeue it not before you finde it true by proofe, for I haue obſerued by often vſe, that this herbe whether in decoction or otherwiſe, prouoketh the termes that are ſtaied.

Ariſtolochie or birth-wort

Birthwoort as well the long as the round, muſt be planted in a fat and fertill ſoile, ſuch as that where wheate is ſowen and oliue trees planted. Their rootes (amongſt other almoſt infinite vertues) cauſe womens courſes, purge the lungs, cauſe ſpitting, cure the cough and prouoke vrine : which more is, if either of them be taken in drinke eſpecially the round one made in powder with pepper and myrrhe, it driueth forth the afterbirth, the dead conception, and all other ſuperfluities gathered in the matrix: it doth the like being applied in forme of a mother ſuppoſitorie,

Centaurie.

Centaurie or the gall of the earth as well the great as the ſmall, deſireth a fat ground, that is fruitfull and well tilled, and yet in ſuch a ground they thriue not well without the great care and induſtrie of the gardiner. Their roote in decoction, iuice or powder, mooueth womens termes and prouoketh vrine, expelleth the dead childe, purgeth flegmaticke humours which cauſe the ſciatica, openeth the obſtructions of the liuer and ſpleene, killeth the wormes, profiteth and helpeth palſies, conuulſions, and diſeaſes of the ſinewes, it cleereth the ſight, and taketh away all miſtineſſe from them, eſpecially the iuice dropt into the eies doth heale their freſh and new wounds, and cicatriceth old and maligne vlcers.

Woodbind or honye ſuckles.

Woodbinde craueth no great tilling or husbanding, for it groweth euery where and in what place it liſteth. It is true that it deſireth greatly to be neere to broome hedges, and the borders of fields. The fruit of woodbinde drunke with wine the ſpace of fortie daies, taketh away the obſtructions of a hard and indurate ſpleene, it purgeth out vrine with ſuch force, as that the tenth daie the vrine becommeth all bloodie: it helpeth women in their childebirth : the leaues in decoction or diſtilled doe heale wounds and filthie vlcers : wipe away the ſpots and ſcarres of the bodie and of the face.

Pimpernell.

Pimpernell hath red and blew flowers, and craueth a moiſt and ſhadowed ground, ſo likewiſe we ſee it grow in the ſhadowes of hedges and buſhes. Pimpernell with the red flowers, ſtampt and applied vnto the eies, or the iuice thereof dropt within them, taketh away the inflammations, dimneſſe and vlcers of the eies : and healeth the inflammations of the ſecret partes : pimpernell with the blew flower boiled with ſalt and water, is a very good and proper medicine to cure the itch or ſcurfe, and the lice, or wormes in the hands, if you waſh them oft therewith.

Buckwheat or byndcorne.

Buckwheate is a very common herbe, and yet but little knowne by his name : it is very ordinarie in corne and tilled grounds about harueſt time. The peaſants of *Champaigne* doe commonly call it *Vel-*

note, because (in my iudgement) the leaues are hairie: which name I minde not to change, but rather to keepe for the easier knowing of the herbe. They make vse of it by applying it, if at any time in shearing they happen to cut themselues with their sickles. For to know it better therefore (then onely by the name) it putteth forth from the roote, fiue, sixe, seuen or eight small branches, for the most part laid along vpon the earth, of the length of a hand and somtime of a foote, bearing leaues somewhat like vnto the little bindweede, but indeede they be lesse and more round, very hairie, and a little fattie. The flower is small and of diuers colours, drawing very neere vnto a pale yellow, but in greatnesse it commeth neere vnto the flower of eiebright, but in shape and fashion vnto the nettle flower.

The vertues of buckwheat.

The water of the leaues and branches distilled (whiles it is in force) in a limbecke in Maries bathe, is singular and maruellous good to stay the spreading of the cancer in the brestes and the creeping polypus, howsoeuer some hold them as incurable. The same applied to the browes taketh away the heate, and asswageth the paine of the head. In an iniection it mundifieth first, and afterward conglutinateth wounds, and drieth vp fistulaes very readily, and maligne vlcers which are easily prouoked, and become woorse by other remedies: being dropt into weeping eies it healeth them, and staieth such rheumes as fall downe vpon them and cause inflammation and dazeling of the same: being applied with a linnen cloth vpon itchings, wheales, scabs, poukes, the wilde fire, S. Antonies fire or shingles, it cureth and healeth them in a very small time, as also all other burning inflammations. Being drunke for certaine daies it staieth all rheumes, vomitings, and fluxes of the bellie, it drieth vp the water in those that haue the dropsie, appeaseth the paines of the colicke: it cureth tertian and quartan agues, and I am verily of minde that it may be giuen to good and profitable purpose to other agues, the temperature thereof considered and his infinite other secret qualities, which euery day are more and more manifested: being drunke and applied a certaine time it reuniteth the rupture and falling downe of the bowels, the falling downe of the mother, and the excessiue courses of women by suppressing them and whatsoeuer other fluxes of blood. Taken in a gargarisme with a little wine, it drieueth the vlcers of the mouth: and being vsed for a gargarisme it selfe alone, it is singular against the distillations, causing the swelling of the vuula or the inflammation of the throte called the squinancie: likewise taken in the same manner it is good against the blacknes and roughnes of the toong caused of a continuall ague. The iuice and decoction of the leaues worke the very same effectes, whiles as yet the herbe is not too much dried by the heate of the sunne.

The compounding of the water of buckwheat.

Of this buckwheat there is made a cõpound water to make the face faire

faire and beautifull, and vndoubtedly to take away the freckles, and it is thus made: Take of the leaues thereof bruiſed in a mortar two good hãdfuls, of the rootsof Salomons ſeale made clean with a linnen cloth & after braied a quarter of a pound, mingle al together, & infuſe them for the ſpace of twelue howres in white wine, this being done put all into a lembecke, adding thereto the iuice of three limons or orenges, then diſtil & draw out the water in Maries bath, which you ſhall keep very carefully for your vſe: but it is requiſite that before this you haue made prouiſion of the liquor of the brionie roote, which muſt be gathered about the ende of Aprill, or in the beginning of May, whiles the dewes continue, and that in this manner. The head of this roote muſt be cut a little, vncouering the top, and not pulling it vp by the roote, after it is thus pared at the top, you muſt cut a hollow hole in it ſome two or three fingers deepe, and then couer it againe with the cappe you haue cut off from the head, and ſome fewe of the leaues thereof, and ſo to leaue it to the next morning before ſunne riſe, not taking off this cap or couering: then there will be found in this hole a liquor which muſt be gathered with a ſpoone, and put vp and kept in a viole glaſſe, after which the couering muſt be put on againe as it was the day before, and this to be continued euery day vntil mid-May, & longer if ſo be that one be ſo diſpoſed. Now when you would vſe it, take an ounce of this liquor, & mixe it in a viole with two ounces of the abouenamed compounded water; & at night when you goe to bed, you muſt wet a linnen cloth in this mixture, & ſpread it al ouer the face, there letting it reſt a good part of the night, but in the morning you muſt auoid the burning heate of the ſunne: and this courſe ſhall be continued certaine nights.

But although the herbe alone applied, his iuice, water, and decoction hauing great and excellent qualities, as it is eaſie to iudge by that which hath been ſaid before, yet foraſmuch as that one ſimple, or one drugge, or many ioyned together, and to good purpoſe and effect in that thing for which it was compounded and made, is of much more efficacie by the helpe and aſſiſtance affoorded vnto it, I am willing for that cauſe to impart vnto **yon** a marueilous ointment made of the ſame bucke-wheate, and the deſcription of it, is in manner as followeth. Take of the iuice of the leaues of bucke-wheate, laide in ſteepe in a little white wine the ſpace of fower and twentie houres, one pound of the iuice of veruaine (which is as yet but a little ſhot vp into branches) in like manner ſteeped as before, and that by it ſelfe a quarter of a pound, of the iuice of the leaues of yellowe henbane (commonly called ſmal nicotian, or the Queenes herb) halfe a pound, oile oliue a pound: mixe all theſe together in a skillet, & boile thẽ vpon a ſmall fire, ſtirring it often with a ſpatule of wood, vntill the iuices be almoſt conſumed: then adde thereto of new waxe, broken into

An ointment of bucke wheat.

peeces, and of perrosine of each a quarter of a pounde, and melt the whole by little and little, still stirring it with a spatule, and keeping a low fire without increasing of it: which being done, take the skillet from the fire, and put into it at that present instant of venice turpentine a quarter of a pound by little threds as it were, and stirring it continually with a spatule: then when the ointment shall begiune to waxe colde, put in masticke and frankincense mixt together in powder, of each the weight of two french crownes, and cease not to stirre it as before, vntill it be all well incorporated. The marke to knowe when the ointment is well made and fully finished, is, if a drop thereof being put vpon your naile do congeale and clutter together, or that it cleaueth vnto the spatule stirring it. Then put you vp this composition in gallipots, for to serue you as shall be declared hereafter.

This ointment aboue all other remedies is singular good in the curing of the canker, aswell of the dugs as of other parts, in the curing also of the polypus, *Noli me tangere*, the kings euill, brused or squat nailes, wounds old and new, fistulaes, and maligne vlcers, be they neuer so rebellious. It quencheth all sharpe inflammations, the shingles, and burnings either of water or fire. It rooteth out all sortes of ringwormes, scabs, itches, pustules, the wilde scab, and the wilde fire. It filleth vp chaps which happen in the hand or fundament. It is good for cuts of sinewes if there be added to it pouned wormes. It cureth the moth, or falling of the haire, if before you annoint the head, the haire be puld and taken away. It taketh away the swelling and paines of the hemorrhoides. Being applied with mans grease and a little oile of roses, it likewise taketh away the paines of the gout. It mundifieth & draweth out mightily the gunshot out of the bodie, and healeth the woundes vp without any other thing applied: it taketh away the blewnesse of dry blowes. To be briefe, it is a most sure and infallible remedie by reason of his temperature in all impostumes either hot or cold, and resolueth and discussеth all tumours that need not to be suppurated and ripened. But this must be obserued, that before you apply it, you must discerne of the offending humour, to the end that you may vse some either generall or particular euacuation, according to good order, and that by the aduise of some Physition.

The foure and fortieth Chapter.

A discourse of Nicotian, or the male petum.

Nicotiana the chief of physick herbes.

NIcotiana though it haue beene but a while knowne in France, yet it holdeth the first and principall place amongst Physicke herbes, by reason of his singular and almost diuine vertues, such as you shall heare of hereafter, whereof (because none either of the old or new writers that haue written of the nature of plants, haue said

anie

any thing:) I am willing to lay open the whole hiſtorie, as I haue come by it through a deere friend of mine, the firſt author, inuentor, and bringer of this herbe into France: as alſo of many both Spaniards, Portingals, and others which haue trauailed into *Florida*, a country of the Indians, from whence this herbe came, to put the ſame in writing, to quite ſuch of griefe and trauell, as haue heard of this herbe, but neither know it nor the properties thereof.

Why it was called Nicotiana.

This herbe is called Nicotiana of the name of an ambaſſadour which brought the firſt knowledge of it into this realme, in like manner as many plants do as yet retaine the names of certaine Greekes and Romans, who being ſtrangers in diuers countries, for their common-wealthes ſeruice, haue from thence indowed their owne countrie with many plants, whereof there was no knowledge before.

The herbe of Queene-mother.

Some call it the herbe of Queene mother, becauſe the ſaid ambaſſador Lord *Nicot* did firſt ſend the ſame vnto the Queene mother, (as you ſhall vnderſtand by and by) and for being afterwarde by her giuen to diuers others to plant and make to growe in this countrey.

The hearbe of the great Priour.

Others call it by the name of the herbe of the great Prior, becauſe the ſaide Lord a while after ſailing into theſe weſterne ſeas, and hapning to lodge neere vnto the ſaid Lord ambaſſadour of Lisbone, gathered diuers plants thereof out of his garden, and ſet them to increaſe heere in France, and that in greater quantitie, and with more care then any other beſides him, he did ſo highly eſteeme thereof for the exceeding good qualities ſake.

Tabaco.

The Spaniards call it Tabaco,

The holie hearbe.

ſome call it the holy herbe, becauſe (as I thinke) of his holy and marueilous effects: very many haue giuen it the name of Male petum, to knowe it from the Female petum, which is in truth the proper name of the herbe, vſed by them of the countrie from whence it was brought: notwithſtanding it were better to call it Nicotiana, after the name of the Lord which firſt ſent it into France, to the end that we may giue him the honour which he hath deſerued of vs, for hauing furniſhed our land with ſo rare and ſingular an herbe: and thus much for the name, now liſten vnto the whole hiſtorie.

Monſier Nicot ambaſſador for the king in Portingall.

Maſter *Iohn Nicot*, one of the kings counſaile, being ambaſſadour for his Maieſtie in the realme of Portingall, in the yeeres of our Lord God, 1559. 60. and 61. went on a day to ſee the monuments and worthie places of the ſaide king of Portingall: at which time a gentleman keeper of the ſaid monuments preſented him with this herbe as a ſtrange plant, brought from Florida. The noble man ſir *Nicot* hauing procured it to growe in his garden, where it had put foorth and multiplied very greatly, was aduertiſed on a daie by one of his pages, that a yoong boie kinſman of the ſaide page, had laide (for triall ſake) the ſaid herbe ſtampt, the ſubſtance and iuice and altogether, vpon an vlcer which he had vpon his cheeke, neere vnto his

noſe,

A matter of experience in the case of a noli me tangere.

nose, next neighbour to a *Noli me tangere*, as hauing alreadie seazed vpon the cartilages, and that by the vse thereof it was become meruelous well: vpon this occasion the noble man *Nicot* called the boie to him, and making him to continue the applying of this herbe for eight or ten daies, the *Noli me tangere* became throughly kild: nowe they had sent oftētimes vnto one of the kings most famous phisitions, the said boy during the time of this worke & operation, to marke and see the proceeding and working of the said Nicotiana, and hauing in charge to do the same till the end of ten daies, the saide physition then beholding him, assured him that the *Noli me tangere* was dead, as indeed the boie neuer felt any thing of it at anie time afterward.

Proofe of it in wounds.

Some certaine time after, one of the cookes of the said ambassadour hauing almost all his thombe cut off from his hand, with a great kitchin knife, the steward running vnto the said Nicotiana, made him to vse of it fiue or sixe dressings, by the ende of which the wounde was healed. From that time forwarde this herbe began to become famous in Lysbone, where the king of Portingals court was at that time, and the vertues thereof much spoken of, and the common people began to call it the ambassadours herbe.

The ambassadours herbe.

Now vpon this occasion there came certaine daies after a gentleman out of the fieldes being father vnto one of the pages of the saide Lord ambassadour, who was troubled with an vlcer in his legge of two yeeres continuance, and craued of the said L. ambassadour some of his herbe, and vsing it in manner afore mentioned, he was healed by the end of ten or twelue daies: After this yet the herbe grewe still in greater reputation, insomuch as that many hasted out of all corners to get som of this herb. And amōgst the rest, there was one woman which had a great ringworme, couering all her face like a maske, and hauing taken deepe roote, to whom the said Lord ambassadour caused this Petum to be giuen, and withall the manner of vsing of it to be told her, and at the end of eight or ten daies, this woman being throughly cured, came to shewe herselfe vnto the saide Lord ambassadour, and how that she was cured. There came likewise a captaine bringing with him his sonne diseased with the kings euill, vnto the saide Lord ambassadour, for to send him into France, vpon whom there was some triall made of the said herbe, whereupon within fewe daies he began to shewe great signes and tokens of healing, and in the ende was throughly cured of his kings euill.

Proofe for ringwormes.

Proofe for the kings euill.

Madome of Montigny dead of a noli me tangere in her brests.

The said Lord ambassador seeing so great proofe & trial of the said herb, & hauing heard say that the late deceased madam of Montigny died at saint Germans in *Laye*, of an vlcer growne in her brests, which was turned to a *Noli me tangere*, for which neuer any body could finde any remedie: and likewise that the Countesse of Ruffe had sought for all the famous physitions of the realme to cure her of a ringworme

which

which she had in her face, and that they could not all heale it, he resolued with himselfe to sende of it into France, and thereupon accordingly sent it vnto king *Frauncis* the second, and vnto Queene mother, and many other Lords of the court, together with the manner to order it and applie it to the abouenamed diseases, as he himselfe had found by experience: as also vnto the Lord of *Iarnac*, gouernour of Rochell, with whom the saide ambassadour had intercourse of letters by reason of the king his affaires: which Lord *Iarnac* also tolde him one day sitting at table with the Queene mother, that he had caused of the said Nicotiana to be distilled, and had caused the water thereof to be drunke being mixt with the water of eiebright by one that was stuffed in his lungs, and that he was cured thereby.

How Nicotiana was first brought into France.

The distilled water of Nicotiana good for a short breath.

This

The figure of Nicotiana. This herbe reſembleth in figure, faſhion, and qualities, the great comfrey, in ſuch ſort as that a man woulde deeme it to be a kinde of great comfrey, rather then a yellow henbane, as ſome haue thought.

The ſtalke. It hath an vpright ſtalke, not bending any way, thicke, bearded or hairie and ſlimie: the leaues are broad and long, greene drawing ſomwhat toward a yellow, bearded or hoarie, but ſmooth and ſlimie, hauing as it were talants, but not either notched or cut in the edges, a great deale bigger downeward toward the roote then aboue: whiles it is yoong it is leaued, and as it were lying vpon the ground, but riſing to a ſtalke and growing further, it ceaſeth to haue ſuch a number of

Leaues.

Braunches. leaues below, and putteth foorth branches from halfe foote to halfe, and ſtoreth it ſelfe by that meanes with leaues, and ſtill riſeth higher from the height of fower or fiue foote, vnto three or fower or fiue cubits, according as it is ſowen in a hot and fat grounde, and carefully tilled. The boughes and branches thereof put out at ioints, and diuide the ſtalke by diſtances of halfe a foote: the higheſt of which

Flower. branches are bigger then an arme. At the tops and ends of his branches and boughes, it putteth foorth flowers almoſt like vnto thoſe of Nigella, of a whitiſh and incarnate colour, hauing the faſhion of a little bell, comming out of a ſwad or huske, being of the faſhion of a ſmall goblet, which huske becommeth round, hauing the faſhion of a

Seede. little apple, or ſwords pummell: aſſoone as the flower is gone and vaniſhed away, it is filled with very ſmall ſeedes like vnto thoſe of yellow henbane, and they are blacke when they be ripe, or greene, whiles they are not yet ripe. In a hot countrie it beareth leaues, flowers, and ſeeds at the ſame time, in the ninth or tenth moneth of the yeere,

Rootes. it putteth foorth yoong ſciences at the roote, and renueth it ſelfe by this ſtore and number of ſciences, and great quantitie of ſprouts, and yet notwithſtanding the rootes are little, ſmall, fine, threddie ſtringes, or if otherwiſe they grow a little thicke, yet remaine they ſtill very ſhort, in reſpect of the height of the plant. The rootes and leaues do

Smell. yeeld a glewiſh and roſiniſh kinde of iuice, ſomewhat yellowe, of a

Sauour or taſt. roſinlike ſmell, not vnpleaſant, and of a ſharpe, eager and biting taſte,

Temperature. which ſheweth that it is by nature hot, more then in the ſecond degree, and dry in the firſt, whereupon we muſt gather that it is no kind of yellow henbane as ſome haue thought.

Nicotiana craueth a fat ground well ſtird, and well manured alſo in this cold countrie, that is to ſay an earth, wherein the manure is ſo well mingled and incorporated, as that it becommeth earthie, that is to ſay, all turned into earth, and not making any ſhewe any more of dung: which is likewiſe moiſt and ſhadowie, wide and roomie, for in

How to refreſh and cheere vp Nicotiana. a narrow and ſtraite place, it would not grow high, ſtraight, great and well branched. It deſireth the South ſunne before it, and a wall behinde it, which may ſtand in ſteed of a broad paire of ſhoulders to keepe

keepe away the northren winde and to beate backe againe the heate of the ſunne, it would alſo be defended from the toſſing and force of the winde by reaſon of his weaknes and height: it is true that it will be out of the danger of the winde, if the roote be deeply taken in the ground. It groweth the better if it be oft watered, and maketh it ſelfe ſport and iolly good cheere with water when the time becommeth a little drie. It hateth the cold, and therefore to keepe it from dying in winter, it muſt either be kept in cellars where it may haue free benefit of aire, or elſe in ſome caue made of purpoſe within the ſame garden, or elſe to couer it as with a cloake verie well with a double mat, making a penthouſe of wicker worke from the wall to couer the head thereof with ſtraw laid thereupon: and when the ſouthren ſunne ſhineth, to open the doore of the couert made for the ſaid herbe right vpon the ſaid South ſunne.

To water Nicotiana.

How to handle Nicotiana in winter.

For to ſow it, you muſt make a hole in the earth with your finger and that as deepe as your finger is long, then you muſt caſt into the ſame hole ten or twelue ſeeds of the ſaid Nicotiana together, & fill vp the hole againe: for it is ſo ſmall, as that if you ſhould put in but fower or fiue ſeedes the earth would choake it: and, if the time be dry, you muſt water the place eaſily ſome fiue daies after: it may be ſowen alſo after the manner of lettuſes, and ſuch other herbes, mingling the mould verie well with the ſeede, and afterward couering it moſt carefully. Some mixe with the ſaid earth verie cleane aſhes, being well ſifted and made ſmall, but in a ſmall quantitie, It is a long time in ſpringing and putting foorth, and after that it is put foorth, you muſt keepe it from the cold and froſt, couering it in the night, euen whiles it is yet yoong and ſmall: and ſo it will be preſerued and kept continually greene and beautifull. And when the herbe is growen out of the earth, in as much as euerie ſeede will haue put vp his ſproute and ſtalke, and that the ſmall threadie rootes are intangled the one within the other, you muſt with a great knife make a great circle or compaſſe within the earth in the places about this plot where they grow and take vp the earth and all together, and caſt them into a bucket full of water, to the end that the earth may be ſeparated, and the ſmall and tender impes ſwim aboue the water: and ſo you ſhall ſunder them one after an other without breaking of them, & thus hauing freed them one of an other, you ſhall plant them along the ſaid wall ſome three foote from it, and fower foote euery one from an other: and if the earth neere vnto the wall be not ſo good as it ought, you ſhal helpe it by ſuch manner of batteling as hath beene ſpoken of, and ſhal cloſe vp all your care about the plants ſo remooued with watering them oft. The time to ſow them is about mid-Aprill or in the beginning: or elſe earlier, if the ſpring-time begin earlier: the Indians and Spaniards ſow it in autumne

To ſow Nicotiana.

The waie to remoue Nicotiana.

At what time Nicotiana muſt be ſowen.

As

As concerning his vertues seeing it is hot and drie in the second degree, as his byting and sharpe taste doth declare: we cannot doubt but that it is good to cleanse and resolue, as also good for the effecting of the things which it hath beene tried to haue wrought, that is to say, for the healing of the *Noli me tangere*, all old wounds, & inueterate & cancred vlcers, hurts, ring wormes, and exulcerated scabs, what maligne qualitie soeuer is in them, kings euill, cloudes of the eies, conlusions, impostumes, stingings of liuing creatures, rednes of the face, and many other accidents which we will runne ouer hereafter particularly. But in respect of the vertues thereof the best and most to be esteemed part are the leaues, and for want of them the seed, though it haue no such vertue as the leaues: the leaues thereof are vsed, either as they are greene at the time of their ripenes, or being kept dry in the time of winter, or in powder, when they are dried and made in pouder: as for the way to keepe them we will speake thereof hereafter.

The leaues of Nicotiana are the best part of the same.

Ache of the head, armes and legs.

And to speake particularly of the effects of Nicotiana. The cold and windie paine of the head, armes, and legs will be holpen, if you lay vpon the griefe oftentimes the greene leaues of Petum somewhat dried ouer the fire: the tooth-ache is staied by rubbing the teeth with a linnen cloath that hath beene dipt in the iuice of the said herbe, and by putting into the tooth a pill of the leaues of the same herbe. The wounds of the armes, legs, and other parts of the bodie how olde soeuer they be, will be throughly cicatrized, if you wash them first with white wine or vrine, and afterward wipe them verie cleane with a linnen cloath, and by and by after put thereupon one or two greene leaues well stamped with the iuice, or the iuice alone, and vpon it some fine white lint, or white linnen cloth, continuing the same daily vnto the end of the cure: and, if you haue no greene leaues, take drie ones and powder them, and put of this powder into the wounds, after you haue washt them as hath beene said, and wiped them with cleane linnen.

A weake stomack not able to digest.

The Indians vse it to comfort the feeble and not digesting stomacke, first rubbing it with oile oliue, and then applying thereupon one or two leaues somwhat dried and made pale ouer the fire: it is in vse also among the Indian Canibals against poison, wherewith they vse to annoint their arrowes to shoote, and this poison will kill by and by if blood be but drawen: for when they goe to war, they carrie in one harts foote of that poison, and in another of the iuice of *Petum* to remedie the mischiefe: and if they haue no greene, they carrie drie with them: and so soone as they haue applied it to the wound, they account themselues out of all danger of death, how great soeuer the wound be. This remedie was tried by the Indian Canibals by reason of a battell where they were hurt in a prouince called *Saouican*, and as their custome was to cure their poisoned wounds with sublimate, so they not finding store thereof sufficient, were made to applie vnto

their

their woundes, the iuice drawne out of the leaues of this herbe, which shortly after tooke away the paine and venome thereof, and so they became whole: the proofe of this thing hath also beene made in Spaine sundrie times; and amongst others by the catholike King himselfe, who to make triall of this herbe, caused the wound of a dog to be rubd with sublimate, and presently after to be applied the iuice of Petum the substance and all. This same remedy may serue against the bitings of mad dogs, so that it be vsed within a quarter of an howre after. The leaues or their iuice applied together with their drosse, do heale the hurts of beastes comming by striking, it taketh away the bruises of all manner of beastes, and from horses such swellings as happen in the ioints, of grosse humours, as also it asswageth the paine of the sciatica, spauins, the place being first rubd with oile oliue, and a leafe of Petum scorched ouer the fire and laide thereupon: by the same meanes it asswageth any paine in any part of the body. The decoction of the leaues boild in water, and made into a syrupe with sugar, or into a iuleb or apozeme, and taking euery morning the quantity of two or three ounces, remedieth the difficulty of breath, old cough, and causeth to spet out grosse and slimie humours, so that the party before he vse this decoction, haue beene vniuersally purged, by some purgatiue medicine: the iuice and drosse of the said leaues stamped in a mortar, doth open the obstructions of the spleene, and soften the hardnesse of the same, applied vnto the region of the spleene in the morning: for want of the leaues the powder may be applied, being mixt with some ointment appropriate vnto such diseases. The same remedy serueth for the paine of the stomacke, the paine of the belly, and the colicke, as also such other griefes comming of coldnesse and windinesse, being applied warme, and vsed oftentimes, till at length the paines be asswaged. It is not of the least seruice for the paines of the matrix, the saide leaues applied vnto the nauell in maner aforesaied: as also if the fume thereof be put into the nose of a woman grieued with the suffocation of the mother. This is the reason why the women that are subiect vnto the disease of the mother, should haue of the same alwaies readie. Some hold it for a singular remedie against the gowte, to chaw euerie morning fasting the leaues of Petum, because it voideth great quantitie of flegme out at the mouth, hindering the same from falling vpon the ioints, which is the very cause of the gowte. If you put the leaues amongst hot embers for some space, and afterward taking them forth, applie them (without shaking of the ashes from them) vnto his bellie that hath eat and drunke much, you shall asswage his swelling fulnesse and keede him from surfetting. The iuice of the leaues of Nicotiana stamped, clarified and mixt with melted sugar of the forme of a syrup, being taken in the morning killeth and casteth out wormes: but therewithall you must lay vpon the parties nauell some of the leaues bruised,

Sciatica.

Difficulty of breathing.

An old cough.

The spleene stopt and hard.

Paine of the stomacke.

Colicke.

Paine of the matrix.

Surfetting.

To kill the wormes.

bruiſed, ſtampt in a mortar, and wrapt in a linnen cloth, and let it be preſently after he hath taken a clyſter of milke and ſugar. All aches of the ioints comming of a colde cauſe, all ſwellings, tumours and impoſtumes comming likewiſe of colde and windie cauſes, all kibes on childrens heeles, as alſo exceeding great itches are healed by applying the leaues of Petum. The iuice of Petum laide vpon a carbuncle how peſtilent or venemous ſoeuer, do h heale and cure the ſame preſently: it doth the like in olde vlcers, though they pearſe vnto the bone, if you continue the vſe of it ſo long as there ſhall be any neede: for it maketh the fleſh to grow againe, and conſumeth the filthines of the vlcers: which I my ſelfe haue prooued in two vlcers of the noſe, cauſed of the French diſeaſe, out of which the iuice of this herbe cauſed great ſtore of wormes to come. Greene wounds (prouided that they be not very deepe) are healed in a day, by putting into them of this iuice, and applying of the droſſe vpon them: and if it happen that they ſhould be deepe, then it is but the further waſhing of them with wine, and then to put this iuice into them, and the droſſe thereof aboue and vpon them with a linnen cloth dipt in the iuice: alſo for the more briefe and ſpeedier curing of them, it were good that they were waſhed within and without with the ſame iuice.

Swellings.
Rheumes.
Cold impoſtumes.
Carbuncle.
Vlcers of the noſe.
Greene wounds.

Nicotiana dried hath the like operation in the diſeaſes and accidents aboue ſpoken of: the way to drie them is this: you muſt take the faireſt leaues and thoſe alſo that are indifferent faire, and put them vpon a file, and afterward drie them in the ſhadow, hanging vnder ſome chamber floore, not in the ſunne, winde, or fire, and ſo you may keepe them whole, to vſe them afterward thus dried or elſe in powder. And that I may particularly touch the diſeaſes which the dried leaues are good for, if you burne the dried leaues of Nicotiana vpon a chafingdiſh, and take the fume at your mouth through a pipe, the head being well couered, you ſhall auoide at the mouth ſuch quantitie of ſlimie and flegmaticke water, as that your bodie thereby will become leane, as if you had faſted long: by which one may coniecture that the dropſie not confirmed may be holpen by taking the ſame fume: the ſame fume taken at the mouth is ſingular good for them that haue a ſhort breath, olde cough or rheumes, in which caſes it maketh them to auoide infinite quantitie of thicke and ſlimie flegme. The diſeaſe of the mother, otherwiſe called the ſuffocation of the mother, is healed by taking this fume into the ſecret parts. For the headache comming of a cold or windie cauſe, if you cannot come by the greene leaues, then take the drie, moiſtening them firſt with a little wine, and after drying them at liue aſhes, then afterward ſprinkle vpon them ſweete water, and ſo applie them vnto your head, or any other ſuch place where you feele any paine: you may doe as much with the powder of the leaues dried, mingling therewithall things

Wherefore the dried leaues of Nicotiana are good.
To drie Nicotiana.
The dropſie.
The ſuffocation of the mother.
Headache.

appropriate

appropriate vnto the diſeaſe. Such as are ſubiect vnto ſwounings are by and by brought againe, by taking at the mouth or noſtrils, the fume of the ſaid leaues burnt, in reſpect wherof Indian women keepe this herbe very carefully, becauſe they be ſubiect to ſwounings. Which is more, the inhabitance of *Florida* doe feede themſelues a certance ſpace with the fume of this herbe (whatſoeuer a certaine new Coſmographer ſay to the contrary, who ſeeketh by his lies to triumph ouer vs in this reſpect) which they take at the mouth, by the meanes of certaine ſmall hornes, the picture whereof you may ſee by the figure of the herbe. And the truth hereof we gather from them which haue beene in *Florida*, and by mariners comming daily from the Indies, which hanging about their neckes little pipes or hornes made of the leaues of the date tree, or of reedes, or of ruſhes, at the endes of which little hornes there are put and packt many drie leaues of this plant, writhen together and broken. They put fire to this end of the pipe, receiuing and drawing in with their breath at their mouth wide open, ſo much of this fume as poſſibly they can, and affirme therupon that they finde their hunger and thirſt ſatisfied, their ſtrength recouered, their ſpirites reioyced, and their braine drencht with a delightſome drunkenneſſe: as alſo to auoide out of the mouth an infinitie quantitie of flegmaticke water. But in that the fume of this herbe maketh men ſomewhat drunke, ſome men haue thought it to be very cold, and by that reaſon a kinde of yellow henbane, which it reſembleth much in his ſtalkes, leaues, cups and ſeede, as we haue ſaid before: but we muſt know that the fume of this herbe doth not make drunken ſo quickly, and withall that this drunkenneſſe doth not proceede of exceſſiue colde, ſuch as is found in henbane, but rather in a certaine aromaticall vapour which doth fill the ventricles of the braine. All which vertues and properties, beſides that we haue prooued and tried them in many diſeaſes here in Fraunce, to the great comfort of the ſicke: they alſo which come from the Indies, and newe world of *Florida*, haue confidently auouched vnto vs to haue prooued and tried the ſame in themſelues, hauing beene wounded and hurt, when they made warre in the countrie againſt the rebellious Indians: who likewiſe affirme that much good is ſpoken of this herbe, euen of all the prieſts of theſe barbarous nations, whereof they make vſe in their magicall practiſes and diuinations, imagining that by the vertue thereof the things which they deſire to knowe are reuealed vnto them. And that it is ſo, the ſauage Indians being accuſtomed to aske of their prieſts the ſucceſſe and euents of things to come, is prooued by the prieſtes: for then they to fulfill the deſires and requeſts of the Indians, take the leaues of this plant and put them in a pipe, or hollow end of a cane and being mixt with wine, they ſup in and receiue it all at the mouth, and by and by after they fall in a

Swouning.

The fume of Nicotiana aſſwageth hunger and thirſt.

That Nicotiana doth not make drunke.

trance, and become as men without life so long, as vntill the herbe haue ended his operation: and then they rise vp halfe giddie, and so make answer vnto whatsoeuer any man hath demanded of them: but wee must thinke that it is more probable, that such like diuination doth proceed of some diuelish arte, rather then by any vertue of this plant, seeing withall that this barbarous and heathenish nation is ordinarily giuen to call vpon the wicked feend in all their necessities, and he againe doth so dazle their eies, that he maketh them to conceiue an infinite number of ambiguous and doubtfull things, and false superstitions: representing vnto them a thousand diuelish and dreadfull visions and apparitions: thus is the simplicitie of this poore people deluded, by the company of the said priests, holding for a true and certaine oracle their vertue proceeding from this plant. Furthermore when they are throughly disposed to see strange and fantasticall visions, they burne the leaues of the said plant, and take the fume at their mouth and nostrils, and very presently after they become as it were depriued of sense, falling to the ground in a trance. It is certaine that many Philosophers do deliuer that there are certaine plants which haue the like force & properties, making men to dreame of an infinit sort of things, and those well pleasing to the spirit & vnderstanding of man: furthermore they assure vs that if a man take of the iuice of it in any quantitie, he shall become beside himselfe for the space of three daies. *Dioscorides* likewise saith, that there are diuers plants which haue the same vertue, as mad nightshade, a dram of the roote whereof, as he saith, drunke with wine, doth bring dreames of vaine things; but not altogether vnpleasant: but taken the double quantity it maketh mad, and taken fowerfold it killeth: if any man eate anise seed going to bed, he shall haue pleasant dreames in his sleepe: but and if he eate turneps, they will procure him noisome and troublesome dreames.

Diuination by Nicotiana.

Mad nightshade.

Anise seed. Turneps.

Furthermore, the vse of the leaues of Nicotiana, as well greene, as dry and made in powder, are distilled in a glasse lembecke, the water whereof is not lesse singular then the iuice in wounds, swellings, kibes, and the falling of the nailes of the fingers, if you powre of this water vpon the griefe, and afterward couer it with linnen clothes dipt in the same.

Some likewise draw an oile out of it by descension (to speake after the manner of Chymists) in a glasse retort: some also doe make thereof a chymicall salt: both the one and the other, are a great deale more excellent in the foresaid diseases, then the leaues, iuice, powder, or distilled water of Nicotiana, forasmuch as quintessences drawn out of simples, are the subtile spirits thereof, wherein lieth the pure force and sincere qualities, of the matter from whence it is drawne: we will not speake heere of the manner of distilling of the Chymicall oile,

and

and ſalt of Nicotiana, but reſerue the ſame for our booke of ſecret remedies.

The ointment of Nicotiana are made diuers waies, notwithſtanding that this onely ſimple taken and applied as we haue alreadie ſpoken at large, be of greater vertue and efficacie. I will onely make mention of two which ſeeme to me the moſt artificially deſcribed. The firſt is: take of the faireſt, greateſt, greeneſt, and moſt roſiniſh leaues of Nicotiana that can be choſen, a pound, wipe them as cleane as is poſſible with a linnen cloth from all duſt, earth, and whatſoeuer other filth, not wetting them any thing at all, braie them in a mortar of wood or marble, with a wooden peſtell: afterward melt halfe a pound of ſweete ſeame prepared (that is freed from all manner of filmes and skins) in a braſen veſſel, putting to the ſaid ſeame the droſſe and iuice of Nicotiana ſtampt, as hath beene ſaide, let it all boile togither in a braſen veſſell at a ſmall and ſoft fire, ſet vpon a triuet, or in Maries bath (that is to ſay, a cauldron full of boiling water) vntil you ſee all the watrie part of the iuice euaporated, and that the reſt haue got the conſiſtence or iuſt thicknes of the forme of an vnguent. The ſecond ointment is ſuch: melt and boile togither perroſin, new waxe, and turpentine vpon a coole fire in a braſſe skillet, of each three ounces, and when it is all melted and ſhall begin to froth, take a pounde of the droſſe and iuice of the leaues of Nicotiana, ſo purged, choſen, and ſtamped, as hath beene ſaid: ſet them to boile with the waxe, perroſin, and turpentine, the ſpace of fiue or ſixe howers more or leſſe, at a ſmall and gentle fire of coales, vpon a treuet, or in a double veſſel (that is to ſay, in a cauldron full of boiling water) ſtirre the ſame continuallie, vntill the watrie parts of the iuice be conſumed and ſpent, and the reſt boild thick like an ointment: after that ſtraine it through a thicke canuaſſe, and put it againe into the skillet, with halfe a pound of Venice turpentine, not ſuffring it to boile, but ſtirring it very well: let it coole, & put it into pots for your vſe. Some in diſpenſing the firſt and ſecond ointment, put not in the droſſe of the ſtamped herbe, but ſtraining it through a thicke ſtrainer, reſerue onely the iuice, which ſeemeth to me to be the better. As concerning the properties of theſe two ointments, the firſt is better for wounds onely cancrous vlcers, ringwormes, skurfs, and fire faces, becauſe it hath more force to cleanſe and reſolue, which is the principall and chiefe propertie of Nicotiana, not being hindered or reſtrained by the mixture of other ingredients. The other ointment is better to incarnate and conſolidate all ſorts of wounds, to reſolue impoſtumes and ſwellings, to mitigate paines and other effects.

What is ment by Maries bath.

The ſecond ointment.

Beſides theſe two ſorts of ointments, there may be made a very excellent balme of Nicotiana: diſtill the leaues of Nicotiana with the iuice preſſed out (the droſſe being caſt away) put it into a glaſſe viole,

An excellent balme made of Nicotiana.

with like quantity of common oile, set this viole well stopt with gummie wax in the sun a long time, and tie vpon the toppe of it a strong parchment, or else set this viole in a cauldron full of boiling water, or burie it in horse dung, and let it stand there full forty daies, changing the dung sometimes; the forty daies expired, you shall find a balme in the viole which is of no lesse efficacie than the quintessence of Nicotiana aboue mentioned, as concerning all the properties that may be desired in this plant.

See heere (friendly reader) the historie of Nicotiana euery where so much spoken of and esteemed, and that according to the very truth so farre as possibly I could finde it out, following the report and intelligences which I haue receiued of the Portugals, Spaniards, and our owne country men, which haue come hither these last yeeres past from out of *Florida*, (which is the naturall soile of the same) as also such experiments as haue been made heere in France of the faculties and vertues thereof, altogether like vnto those, which that plant (which *Florida* as the natural country thereof) doth bring forth and nourish: which if you haue not alwaies found in euery point correspondent and answering vnto such effects, as we attribute and giue vnto it, yet you must not therefore condemne the plant, as though those were but fained and counterfaited properties and vertues, which we haue deliuered and reported of it; but rather accuse the small care which is had in the planting of it heer amongst vs: assuring your selues that if you prouide for it such a soile and other comforts, as it hath where it naturally groweth, or somewhat neere thereunto (for such in all respects cannot possibly be procured heere in France, by reason of the coldnesse and inequality of the aire) and that you husband it likewise as carefully as the Indians, that then you shall perceiue that what I haue heere set downe of it, is very faithfull and true.

The fiue and fortieth Chapter.

Of female Petum.

THe experience (which is the mistresse of arts and sciences) which hath beene had of the faculties and vertues of this herbe which are almost like vnto those of male petum: the shape of the root, stalk, leaues, flowres, & seed of the same, which is but a very little one, and in littlenesse onely differing from the figure and colour of male Petum, do giue vs some light & reason why we should call this herb by the name of female Petum, & yet the more boldly, for that of the seed of the male Petum this female doth oftentime spring and grow. For if when the male Petum is in seede, it happen to shed the same vpon the ground where it is planted and hath put foorth, then this ground the yere following will not faile to bring forth the female Petum. And

Female petum groweth of the seede of the male.

which

which more is, if you sow the seede of male Petum in a ground that is not hot, fat, well turned, and well manured, but rather which is leane and sandie, in steede of bringing forth male Petum, it will bring forth the female Petum, and that in such abundance, as that you shall hardly rid the ground of it, but that it will grow euery yeere without being either sowne or planted: which must be an argument vnto vs, that there is in Petum two sexes, a male and a female: like as we are accustomed to doe in many other herbes and plants, hauing betwixt them some resemblance and affinity as wel in their vertues as in their figure, proportion and colour. It is true that the female Petum hath a lesse stem and lower, the leaues not so great and shorter, not so rosiny, nor so many: the flowres not so much vpon carnation, nor so large spread: the seed more red: the branches not so long nor so high, neither yet so many as the male Petum putteth forth. And to vtter my iudgement and make a particular description, this small female Nicotiana hath his stem or stalke of two foot height or thereabout, cornered, slimie and woolly, set by distances with long leaues, large, pointed and sharp, soft, vnctuous, hoary, not notched, and of a browne colour. It bringeth foorth as it were a nosegay at the top of the stalke, and vpon the branches from betwixt the leaues two flowres of a pale yellow, which are like vnto the cowslip flowres: and when they be fallen there remaine and stay behinde cups, and as it were greene pots, inclosed in small hoarie skins, open aboue, and hauing fiue or sixe points, but such as pricke not. Within the cup is contained a seed, which is very little, of a brown tawny colour: the root is tender and fibrous. Where the seed hath beene once sowne, it soweth it selfe againe, and increaseth and multiplieth mightily. This sheweth manifestly how greatly they are deceiued, which call this herbe Priapeia, as though it were a kinde of Satyrion, which commeth neere to that which is called male royall Satyrion: for this herbe which we call female Petum, doth nothing resemble Satyrion, neither in roote, colour, figure, disposition, nor properties. For female Petum hath many small rootes, a iointed stalke, many branches, many long and large leaues, being hot and dry as is the male Petum: but Satyrion hath fewer roots but grosser, a stalke without any ioint, no branches, fewer leaues, flowres only at the top of the stalke, without cods and seed, hot and moist in the third degree, and good for nothing but to stirre vp carnall heate. Monsieur *Goupill* and *Dodonæus* haue spoken more wisely, saying that it is a kind of henbane bearing a yellow flowre.

Female Petum is not Priapeia.

As concerning the vse and remedies which female Petum affoordeth, they are as it were like vnto the vertues of male Petum, for it serueth in steed of the other when the other cannot be gotten, and that in such sort as we haue declared, that is to say, in his leaues greene or drie, powder, seede, iuice, drosse and distilled water in ointments

The vertues of Female Petum.

and balme prepared after the manner that we haue ſpoken of: but you muſt obſerue that the female Petum hath his particular properties, as that the leaues put in a decoction for clyſters, are ſingular for bloudie fluxes, and that the balme made thereof according to manner aforeſaid, is a remedy not ſecond to any other, in the curing of the cancers of the breaſts and other parts, and that the iuice thereof applied is ſingular againſt the falling of the haire called *Tinea*, the head being firſt ſhauen, and that the iuice mingled with mans greaſe and applied, aſſwageth the paine and inflammation of the goute: and that taken inwardly it purgeth vehemently, and that therefore it is to be auoided and ſhunned, vntill ſuch time as his correctiue be knowen, and the vſe thereof in purgations receiued.

The leaues of female petum for the bloudy fluxe.

The ſixe and fortieth Chapter.

A briefe diſcourſe of the roote Mechoacan.

WIthin certaine yeeres paſt, the Indians, Portugals and Spaniards haue ſent vs the roote of an herbe, which they call Mechoacan, which hath vertue to purge the humours, in the ſame ſort that our vſuall purging medicines. Our country men giuen to admit of and eaſily receiue new things, do greatly eſteem of it, euen vntill this preſent: we will lay down the hiſtory thereof in briefe, and as truly as poſſibly we could come by it, to the end it may the better be diſcerned, whether it deſerue to be had in ſuch eſtimation as we haue it in or no.

The reaſon why it is ſo called.

The root is called Mechoacan, of the name of the region or countrie where it groweth, which is a prouince of new Spaine (ſituate in the weſt Indies or new world) called by the inhabitants *Chinciela*, and by the commandement of the Catholike King, Mechoacan, which prouince aboundeth with gold, ſiluer, cattell, corne, fruites, exquiſite plants, mines of mettall and ſtones, and all ſorts of good things, where alſo the people are well coloured, full of vigour, ſtrong of body, and of a perfect health, and that by reaſon of the aire, which is more wholeſome there, than in any other place of the Indies. The occaſion of the name roſe thus: The Spaniards Lordes of this prouince, and being deſirous to plant it with Chriſtians, did erect and ſet vp a couent of Friers Cordeliers, liuing monaſtically: whoſe prouinciall father being extreame ſicke, was quickly cured by an Indian Phyſition, who cauſed him to vſe oftentimes the powder of this well proſpering and happily ſucceeding medicine, when as therefore they fell ſicke, they tooke with good ſucceſſe of this powder: and thus this roote came in great requeſt throughout the whole prouince, and from thence the praiſes thereof were carried and publiſhed throughout all Spaine and Portugale: and thereupon it hath kept the name of the

prouince

prouince of Mechoacan: the fame thereof is likewiſe come into Fraunce, by the meanes of merchants deſirous of gaine, who haue brought it vs hither from thence. Some call it Rhamindicke, becauſe it ſeemeth that it hath the like propertie of attracting and purging flegmaticke and ſerous humours; which the Eaſt rubarbe hath to attract and purge cholericke humours. *Rhamindicke.*

This roote is not brought vnto vs whole, but in pieces and round ſlices, whereunto it is diuided with kniues or with hands, ſo ſoone as it is drawen out of the earth, that ſo it may the better drie in the ſhadow (although in drying it grow but little leſſe) and that it may keepe better in theſe round ſlices, than either whole or in powder: but the powder which is brought from the Indies, is of leſſe operation, than that which is made into powder amongſt vs: it is thicke and of a weightie ſubſtance, and the rinde thereof of an aſh-like colour: the inward ſubſtance white and marked with many circles, without any taſte, except ſuch as meale is woont to haue: for it is neither ſharpe, nor ſweet, nor bitter: and ſmell it hath none, neither is it any thing pithie. *The markes of mechoacan.*

The beſt is that which is whiteſt, moſt cloſe in it ſelfe, well ſet and ioined together, ſomewhat heauie, not full of holes or rotten: it becommeth, in time, of white, ſomewhat grayiſh or blackiſh, and thus by his colour is diſcerned whether it be new or old: for the new is white, but the olde grayiſh or blackiſh, and as it were wrought with diuers colours. *To chuſe the beſt mechoacan.*

This is the roote of a plant, which is a kinde of great bindweede, called in French *Lizeron*, which windeth it ſelfe about reedes or ſtakes along vp to the top of them, helping it ſelfe in this compaſſing ſort to climbe without any manner of aide, it hath a ſtalke or trunke mixt of diuers colours, as deepe yellow, greeniſh, reddiſh, ſomewhat of the colour of aſhes and medlay, commonlie called the lions colour: the leaues are ſomewhat moiſt (there being within the flowers as it were clappers with round knots at the vpper ende, the ſharpe pointed end being toward the ſtalke of the foote) round and of a darke greeniſh colour: it beareth a fruit like a grape, as big as a coriander ſeed, and it is ripe in the moneth of September and in the Spring following: it putteth foorth neere vnto the rootes ſmall ſciences and ſproutes, which fall to creeping vpon the earth, if they be not borne vp with ſome pole, about which they may writhe and caſt themſelues rounde. The ſeede is like vnto that of bindeweede. For your better aſſurance in all this that hath beene ſayde, you may viſit and ſee the Phyſicke-gardens of Maſter *Nicholas Raſe*, that learned and well experimented Chirurgion, and of Maſter *Peter Cuth*, a skilfull and painfull Apothecarie, both which dwelling at *Paris*, haue enriched our countrey of *Fraunce* with an infinite num-

ber of rare, exquisite and verie singularly qualified simples. This root is very like to the root of wilde vine, as well in colour, rinde, and wrinkles, as in thickneſſe: in consideration whereof, some haue called this plant white vine: but and if you taſte the one and the other root, you shall finde them somewhat differing: for mechoacan if you chaw it is found without any taſte, except it haue a mealy taſte, for it is nothing sharpe, but hath some small astringent and binding qualitie: Brionie greene or drie is biting, and leaueth behinde it in the palate and roofe of the mouth, a sharpe and displeasing taſte: it agreeth much better with the blacke vine, or with turbith, at the least in facultie, and becauſe they are both of them gummie.

The vertues of Mechoacan.

And concerning the vertues and faculties thereof, they are of two sorts: the one proceedeth of his manifeſt qualities, as for that it is hot about the second degree, and drie about the third degree, compounded of airie, subtile, and somewhat earthie parts, and by this last it hath some binding and astringent qualitie, from whence it riseth, that in purging it comforteth. Furthermore, it openeth the obstructions of the inward parts, chiefly when it is taken in infusion. The other vertues that it hath come of a secret and hidden propertie, by reason whereof it purgeth speciall and choise humours, that is, it purgeth by some similitude and familiaritie of substance, flegmatike and serous humours, but flegmaticke especially, then secondly cholericke, and last aduſt and melancholicke humours, and those not onely from the stomacke, liuer, spleene, and guts: but also from the head, parts about

the

the breast and ioynts : in regard whereof, it is good against olde agues, and long diseases, but especially the iaundise, dropsie, gout, kings-euill, woolues, flegmaticke tumours, head-ach, obstruction of the lungs, shortnesse of breath, the suffocation of the mother, colicke, paine in the flancks, retention of vrine, costiuenesse, agues of diuers humours, that is to say, proceeding of flegmaticke and cholericke causes mixt together, quotidian, tertian, and bastard agues : to be short, against all diseases comming of a cold humour. Wherefore it is not meet to be vsed in hot burning agues, nor yet in cholericke agues, nor yet in any other such sicknesses, as are ioyned with great heat and inflammation, nor yet where adust humours doe offend : for although it purge them, yet it leaueth behinde it some notable heat : but it is very true, that in continuance thereof it would doe seruice, as namely when the thinnest part is purged, and nothing remaineth but the thicke and grosse behinde. This is the cause why this root is not fit for the beginning of cholericke diseases, if it be not first steept a night in endiue or succorie water, with a very little white wine, and in the morning straining of it, to drinke the liquor strained from it.

Mechoacan is not fit for cholericke diseases.

The preparing of Mechoacan for to vse.

The way to prepare it is on this maner : you must take the weight of a dram, or a dram and a halfe, or two drammes, more or lesse, according to the disposition of the bodie, the aptnesse of it to purge and the age and strength of him to whom you giue it : and afterward beat it in a mortar, and make it into powder, neither too grosse nor too fine : then afterward put this powder in three ounces of white wine, (when there is no ague) or water, or the decoction, or broth of endiue, or succorie, or of a chicken, or some other such liquor, which is meet and fit for the present disease, as in the water of betonie, for the headache : or in the water of motherwoort for the diseases of the matrix, and so foorth of others : afterward the next morning you must drinke it, the liquor and powder all together : there may further at your pleasure, any sirupe that you wil, be mixed therewith, if so be you know it meete and conuenient for the disease in hand : it is true, that we haue often prooued, namely, that it endureth no mixture of sirups or such other things, no nor of cinnamom (if the ill disposednesse of the stomacke do not require it) for in such mixtures it maketh no operation, and therefore it is better to take it altogether simple. It may be giuen also in infusion, when we desire to take away the obstructions of the spleene or liuer, in steeping all night the powder thereof grosly beat (as we command to be done with rubarbe) in some wine or liquor fit and appropriate : afterward straining it the next day in the morning, and giuing the liquor onely (wherein it was infused) to drinke : but in this case the quantitie of the powder must be increased vntill it come to three or foure drams, for otherwise it will worke no effect, inasmuch as experience hath taught vs that the purging

The infusion of Mechoacan.

qualitie

qualitie of this root lieth not so much in the subtile parts thereof, as in the substance. Which thing *Mesues* may seeme to haue found likewise in rubarbe of the East, when he wisheth vs to take two drams only of rubarbe in substance, and the double in infusion: this thing may happen vnto this roote, and to that rubarbe of the East, vpon their longer staying in the stomacke being taken in substance then in infusion, and thereupon make a stronger and a longer continuance of their purging. This powder may be also prepared in another manner: as namely, by making marchpanes of the saide powder with stamped almonds and sugar, which will be very fit to purge yoong children after a gentle manner: there may pilles also be made of this powder, which may be as small as coriander seedes, to the end they may be the sooner dissolued within the stomacke, and not staie long there to heate it: or else they may be made greater, when there is any purpose that the said powder should draw from the ioints and outward places.

Marchpanes of mechoacan.

Pilles of mechoacan.

The commodities of the vse of mechoacan.

The commodities and benefits that rise of the vse of this root are, that it may be taken at all times: it is not lothsome to the taste, nor horrible to the smell, neither yet hath it any displeasing colour, vnto all which the other purgatiues for the most part are more or lesse subiect: it procureth not any loathing vnto the stomacke, it causeth not any wringings in the belly, neither prouoketh it any vomit: it purgeth so gently as that it worketh not any weakenesse or relaxation, or any other such passion vnto the stomacke: it resolueth not or looseneth the naturall power, neither doth it trouble or put the body to paine: but contrariwise it maketh it strong and lustie, as though indeed it were no purgatiue or medicine, but a familiar and acceptable thing to our natures: which thing falleth not out ordinarily in other medicines, so that yoong children, olde folke, and all such as haue taken anie great checke and dislike at other medicines, may safely, pleasantly, and profitably take and vse this.

That the body and humours must be prepared before the taking of mechoacan.

It is true that before it be taken, it will be needfull to prepare and digest the humour that is to be euacuated, attenuating and making thinne and small the same, because it is colde and clammie: and opening the passages after the counsell of *Hippocrates*, with clysters and other conuenient meanes, for otherwise the powder profiteth nothing: as we see it fall out euerie daie in such as vse it rashly and without preparation, and so also with them the thing that of it selfe is very good, doth get an ill name, but against all right and equitie, seeing it worketh good and laudable effects, being taken the body first prepared. When it is taken, the partie must keepe himselfe from colde, winde, much eating or drinking, and other excesse: he may sleepe an howre presently after he hath taken it, but not after that it beginneth to worke: there is no neede for him to take any broth two

The day of the taking of it.

or

or three howres after he hath taken it: for it is so worthie a medicine, that it causeth not anie paine in the guts: the day following if the bellie be bounde, you must procure it to stoole by clysters or otherwise: and put case it hath not sufficiently purged, you must then goe ouer it againe, so oft as till it hath wrought your wished intent. As concerning the symptomes or accidents which may follow the taking of it, they are easily reformed, although in deed the greater part of them growe rather of the qualities of the humours or of the euill dispositions of the bodies of them that take it, then of any maligne qualitie in the roote it selfe. For as for vomiting that may come by reason of the stomacke being easie and inclined to vomit, as hauing a verie sensible orifice; or of the abundance of superfluities and fretting humours contained in the same, rather then of the powder which doth strengthen and comfort the stomacke by his astringencie: notwithstanding it shall not be amisse to meete with this vomiting, to put into the infusion of this powder a little cinnamom. It is held for certain that if any be desirous to stay the working excessiue or not excessiue of this powder, that he needeth but take some small quantitie of broth, and the eating of it will stay the attraction of the medicine; although I haue prooued this not to be alwaies true. I further confesse that it leaueth some heate and drines behinde it when it hath wrought, which appeareth by the great alteration that is remaining; but this is no other thing, then that which other purging medicines likewise haue, for they being al of them hot doe shew themselues therein, but this heate may easily be corrected by the mingling of cold things: suppose likewise that such heate may as soone come of the hot and drie humour, as it happeneth in hot burning agues and true tertains, especially if the sicke partie be of youthfull and flourishing yeeres, of a hot and drie temperature, in sommer, in a hot region, and when the present constitution of the aire is hot, and being such a one as hath a leane and thinne bodie: and then in this case I could wish such a partie not to vse this powder without the deuise of a learned and wise Physition, for feare of running into a greater mischiefe. I confesse further that it leaueth a costiuenes behinde it, in such sort as that some are sixe daies before they can goe to stoole after: but herein it deserueth no more blame then other like purging medicines, and especially rubarbe: notwithstanding to meete with this, you must take a clyster the day following, or eate some broth or plum pottage, which may loosen the belly.

The day after the taking of it.

Costiuenes.

Symptomes happening vpon the vse of mechoacan.

Loe here (friendly Reader) what thou art to iudge of the roote of Mechoacan, and what opinion thou art to haue of the properties thereof, and how thou canst not faile therein, if first thou knowing the good by his tokens and markes, dost prouide thy selfe for thy vse accordingly: as namely, if thou buy that which is new, sliced into round

pieces,

pieces, white, dustie, and which, quantitie for quantitie, doth ouerweigh other roots. And if thou findest any one to be somewhat black and worme eaten, by that thou maiest know that it is olde, and that therefore thou oughtest not to vse it: it is somewhat hard and quickly rotteth, for it will hard and scant indure thtee yeeres, if it be not hidden in millet, or wrapt in a linnen seare-cloath, or couered ouer with pitch or rosen.

The garden of pleasure or flower garden.

The seuen and fortith Chapter.

Of the profit, pleasure, situation, working or tilling, and disposing of your garden of pleasure.

The flower garden.

THE most pleasant and delectable thing for recreation belonging vnto our French farmes is our flower gardens, as well in respect that it serueth for the chiefe Lord whose the inheritance is to solace himselfe therein, as also in respect of their seruice for to set Bee-hiues in. It is a commendable and seemely thing to behold out at a window many acres of ground well tilled and husbanded, whether it be medow, a plot for planting of willowes, or earable ground, as we haue stood vpon heretofore: but yet it is much more to behold faire and comely proportions, handsome and pleasant arboures and as it were closets, delightfull borders of lauender, rosemarie, boxe, and other such like: to heare the rauishing musicke of an infinite number of prettie small birdes, which continually day and night doe chatter and chant their proper & naturall branch songs vpon the hedges and trees of the garden: and to smell so sweet a nosegaie so neere at hand: seeing that this so fragrant a smell cannot but refresh the Lord of the farme exceedingly, when going out of his bed-chamber in the morning after the sunne rise, and whiles as yet the cleere & pearlelike dew doth pearch vnto the grasse, he giueth himselfe to heare the melodious musicke of the Bees: which busying themselues in gathering of the same, do also fill the aire with a most acceptable, sweet & pleasant harmonie: besides the borders and continued rowes of soueraigne, thyme, balme, rosemarie, marierome, cypers, soothernwood, & other fragrant herbes, the sight and view whereof cannot but giue great contentment vnto the beholder.

The garden of pleasure (as hath beene said) must be cast and contriued close to the one side of the kitchin garden, but yet so, as that they be sundred by the intercourse of a great large alleye, as also a hedge of quickset, hauing three doores, whose ground must be of a like goodnes, and vouchsafed the like labour, tilling and husbanding, that the kitchin garden hath bestowed vpon it: and as the kitchin

garden

garden is to be compaſſed and ſet about with lattiſe worke, and yoong common bordering ſtuffe to be made vp afterward and contriued into arbours, or as it were into ſmall chappels, or oratories and places to make a ſpeech out off, that many ſtanding about and below may heare: in like ſort ſhall the garden of pleaſure be ſet about and compaſſed in with arbours made of Ieſamin, roſemarie, boxe, iuniper, cyper trees, ſatin, cedars, roſe-trees, and other dainties firſt planted and pruned according as the nature of euery one doth require, but after brought into ſome forme and order with willow or iuniper poles, ſuch as may ſerue for the making of arbours. The waies and alleyes muſt be couered and ſowen with fine ſand well bet, or with the powder of the ſawing of marble, or with the fine duſt of ſlate-ſtone and other hewen ſtone: or elſe paued handſomely with good pit ſtone, and tyles that are well burnt: or with faire pieces of ſtones ſuch as ſtaires be made of, the whole laying of them being leuelled and made eeuen with a beater or mall made for the purpoſe. *The alleies of the garden.*

This garden by meanes of a large path of the breadth of ſix feete, ſhall be deuided into two equall parts: the one ſhall containe the herbes and flowres vſed to make noſegaies and garlands of, as march violets, Prouence gilloflowres, purple gilloflowres, Indian gilloflowres, ſmall paunces, daiſies, yellow and white gilloflowres, marigolds, lilly conually, daffodils, canterburie bels, purple veluet flowre, anemones, corne-flag, mugwoort, lillies, and other ſuch like, and it may be called the noſegaie garden. The other part ſhall haue all other ſweet ſmelling herbes, whether they be ſuch as beare no flowres, or if they beare any, yet they are not put in noſegaies alone but the whole herbe with them, as ſoothernwood, wormewood, pellitorie, roſemary, Ieſamin, marierom, balme, mints, penniroyall, coſtmarie, hyſſop, lauander, baſill, ſage, ſauory, rue, tanſey, thyme, cammomill, mugwoort, baſtard marierom, nept, ſweete balme, all-good, anis, horehound and others ſuch like, and this may be called the garden for herbes of a good ſmell.

Theſe ſweet herbes, and flowres for noſegaies ſhall be ſet in order vpon beds and quarters, of ſuch like length and breadth, as thoſe of the kitchin garden: and ſome of them vpon ſeats, & others in mazes made for the pleaſing and recreating of the ſight: other-ſome are ſet in proportions made of beds interlaced and drawen one within another, or broken off, with borders, or without borders: the greateſt part of which ſweete herbes, as alſo for noſegaie flowres, though they grow naturally and of their owne accord, without any labour or trauell of the gardener, eſpecially herbes for noſegaies, yet ſuch of them as ſtand in need of dreſſing and ordering, ſhall be ſowen, planted, remoued, gathered, and kept, no otherwiſe than the potherbes; but yet notwithſtanding regard muſt be had of the nature of euery particu-

lar

lar one, as shall be declared heereafter in the particular description of some of them.

The eight and fortieth Chapter.

Of herbes for flowres or nosegaies.

March-violets.

MArch violets as well the single as the double must be set of whole plants in a well manured ground, and digd the depth of a foote before the Kalends of March: if you will sow them, you may doe it in autumne and the spring. But especially you must beware not to set violets euery yeere in one and the same place, for otherwise it will beare a yellow flowre and haue very little or no smell in it: you may make that one and the same violet shall beare all the colours that others do, that is to say, white, pale, yellow and red, if you mixe together the seeds of all and tying them in a linnen cloth, put them in that sort into a well manured earth. The violet must be gathered in the morning before the sunne rise, and when it raineth not, if so be that you will haue it to keepe his vertues and sweet smell.

The vertues of violets. A blow on the head.

The flowres of March violets applied vnto the browes do assuage the headach which commeth of to much drinking, and procure sleep. He that shall haue taken a blow vpon the head, so that it hath astonished him, shall not haue any greater hurt if presently after such a blow he drinke violet flowres stampt and continue the same drink for a certaine time. There is made of the flowres of violets, syrups and conserues, good for the inflammation of the lungs, the pleurisie, cough, and agues.

White, yellow and red gilliflowres.

White, yellow and red gilliflowres, do craue the like ordering that the March violet doth, and grow better vpon wals, house tops and old ruines of stone, then planted or tilled in gardens, especially the yellow, which come neerer to the resemblance of a shrub than of an herb, hauing hard and wooddy stalkes, and set ful of branches, commonly called of apothecaries Keyry. The seed of gilliflowres stampt and drunk with white wine, is soueraigne to prouoke womens termes, and to further deliuerance in them that trauell.

Daisies.

Daisies must not be sowen but planted after the maner of violets, this is the least kind of the cumfreies, which is likewise found in the fields without being tild, it flourisheth all the yere long if it be well ordered. Daisies stampt with mugwoort resolueth the kings euill. A caplasme made of daisies is good for the palsie, and all maner distillations. For wounds in the breast, whereinto tents may be put, it is good to drinke by and by a drinke made of stamped daisies: they heale the pustules of the toong if they be chewed, as also of the mouth: being braied they assuage the inflammation of the priuy members: eaten in salades or broth of flesh they loosen the belly.

Kings euill. Palsey. Gowte.

Purple

Purple veluet flower, called in Latine *Aramanthus*, doth recreate more with his colour, then with any ſmell that it hath, for it ſmelleth nothing at all: notwithſtanding who ſo will haue it in their gardens, muſt plant it in a dry and ſandy place. The flower ſupt in pottage doth ſtay the fluxe of the belly, the termes and white flowers of women, the ſpetting of bloud, eſpecially if there be any veine broken in the lungs or breſt. The flower infuſed in water or white wine the ſpace of an howre, maketh the colour of the wine redde, and thus one may helpe himſelfe the more eaſily to beguile any that are ſicke of ſome ague, and cannot abſtaine from wine. *Purple veluet flower.* *The white flowers of women.*

Canterburie bels, aſwell the ſimple as the double, require a fat ground and well inriched. The Latins call it *Viola Calathiana*. *Canterbury bels*

Their flowers mingled with wheate flower make a good cataplaſme againſt ſcuruines and other ſorts of ſcabbes, likewiſe their rootes boiled in white wine, to the conſumption of the halfe, and a linnen cloth dipped therein, and applied to ſcabs and ſcuruines doth heale them: the roots boiled in wine and taken in a potion, do heale all the rnptures of the inward parts of the bodies, do clenſe the exulcerated lunges, and ſpetting of bloud: braied & grounde in manner of meale and druncke in wine the weight of a french crowne, with two or three graines of ſaffron, are ſingular good againſt the iaundiſe, if the partie ſweate thereupon preſently: the like vertue is in the diſtilled water of the flowers: the iuice drawne out of their roote and flowers applied vnto wounds doth heale them preſently: a peſſarie drencht in this iuice, prouoketh womens termes, and draweth out the childe dead in the mothers wombe: being dropt into the eare, whereinto there hath ſome flea or ſuch other vermine crept, it killeth them. *The vertues.*

Gilliflowers of all ſorts are ſeldome ſowne, but oftentimes planted of rootes or branches pluckt from the plants: the roote ſhall be planted in the beginning of Autumne, in a fat moulde, and ſo put in pots of earth, that it may be remooued and ſet vnder ſome couert in winter for feare of the froſtes: ſommer being come before the great plant haue caſt foorth his ſprouts, you may breake off ſo many ſmall branches from about the roote, as will almoſt ſerue to ſet and plant a whole bed withall, and ſo you may breede new plants of them. *Prouence, purple and Indian gilliflowers.*

You may make gilliflowers ſmel like cloues, if you lay bruſed cloues round about their rootes. In like manner you may make them haue faire flowers, large, pleaſant, and ſweete ſmelling; if you plucke away their leaues often, and take paines to digge and water their earth: furthermore ſuch gilliflowers are commonly called gilliflowers of Prouence, of the place where gilliflowers ſo ordered do growe, large, tufted, and ample: thoſe which haue not their flowres ſo large nor ſo ſweete, neither yet are ſo carefully looked vnto and dreſſed, are called purple gilliflowers. *To make gilliflowers to ſmell like cloues.* *Gilliflowers of Prouence.* *Purple gilliflowers.*

The

The flowers of gilliflowers of Prouence, as also their roote, are soueraigne against the plague. And for this cause such as are well aduised, in the time of the plague do make conserues or vineger of the flowers of gilliflowers, to keepe themselues from the euill aire.

Indian gilliflowers.

Indian gilliflowers, called of the Latins *Flos perillius*, and *Ocellus Indicus*, although it refuse no ground, notwithstanding if you plant it, of the whole plant, or of the branches thereof, or else sowe it in a fat and well manured ground, especially in the beginning of Iuly, it will grow vnto such a height, as that it will seeme to be a thing degenerated into the bignes of a tree, and will put foorth of his stalke manie boughes, after the manner of a tree or shrub: and by the same meanes there will put foorth flowers induring vntill winter.

The Indian gilliflower doth cause the headach and an ill and vnholesome aire.

Who will be counted careful of preseruing his health, must not smel vnto the flower of the gilliflowers of India. for the smell thereof doth procure headach & giddines, & is a meanes to breede the falling sicknes: further also which is more dãgerous, som haue found it by experience, that it ingendreth an infectious aire: lekewise Physitiõs giue special prohibition to smel vnto the Indian gilliflower in the plague time, because the flower thereof is venemous, and of temperate much like to the hemlocke, which may easily be perceiued by the vnpleasant smell it yeelde h, being both most strong and stinking. That it is so, namely that it is venemous, I haue giuen thereof sometimes vnto a cat the flower of the gilliflowers of India beaten and mixt with cheese to eate: and she hath thereupon become very much swelled, and within a short time after dead: I sawe likewise a little yoong childe, who after hauing put these flowers in his mouth, his mouth and lips did swell, and within a day or two after became very scabbed.

Wild gilliflowers.

Wilde gilliflowers aswell white as red, although they growe in the edges of fieldes and along the waies, may notwithstanding be planted and set in gardens, where if they be oft remooued, they will grow to haue a double flowre. Their seede, flower, and whole herbe is good against the stinging of Scorpions: and indeed haue so great vertue this way, that the herbe onely cast among scorpions, taketh from them al power to hurt: their seede taken to the quantitie of two drams purgeth hot and cholericke humours.

Dame violets.

Dame violets haue great leaues somewhat blacke, notcht round about, and broad: the flowers are white and incarnate, and in shape like vnto the Auens: they grow sometimes so high, as that they degenerate into a tree.

Goates beard.

Goates-bread, that it may haue faire, double, and full flowers doth craue a fat and moist ground. The leaues thereof open at the sun rise, and they close at noone: the roote boiled in mudde doth appease the paines and pricking of the side: taken in forme of a lohoch with sirupe of violets, it helpeth obstructed lungs, and the pleurisie: boiled

in

in water and preſerued with ſugar, it is a ſingular preſeruatiue againſt the plague, poiſons, venome, and deadly ſtinging: the iuice or diſtilled water of this herbe doth heale greene wounds, if you dippe linnen clothes therein and applie them to the woundes: ſome vſe the roote of this herbe in ſalades, where daintie and fine fare is: the ſame boild in a pot with veale and mutton, and afterward prepared and made ready betwixt two diſhes with butter and vineger.

Marie, or Marians violets for the beautifulnes of the flowers, deſerue to be ſowen in a fat & wel laboured ground: the flowers are good to make gargariſmes, for the inflammations and vlcers of the mouth. *Marians violets.*

Lillie conuallie, called of the Latins *Lilium conuallium*, notwithſtanding that it groweth in ſhadowed woodgrounds, yet it deſerueth to be tilled in gardens, aſwell in regard of the faire little flowers, white as ſnow, which it beareth, being alſo of a moſt amiable ſmell, ſomwhat like vnto the lillies; as alſo in reſpect of his vertues: bicauſe the diſtilled water of the flowers being taken with ſtrong and noble wine, doth reſtore the ſpeech vnto them which haue loſt it vpon an apoplexie: it is good likewiſe for the palſey, diſtillations and fainting of the hart. *Lillie Conuallie.*

Water lilly as well the white as the yellow deſireth a wateriſh and marſhie place: we ſee it grow likewiſe in pooles and fiſhponds. The roote of white water lilly boild with groſſe red wine and drunke, ſtaieth womens whites: the flowers, rootes, and ſeeds, as well in decoctions as in conſerues, are verie ſingular to procure ſleepe, and to preſerue chaſtitie. *Water lillie.*

Hyacinth groweth verie well in a ſandie ground. The roote and ſeed boild in wine and drunke, doth ſtay the fluxe of the belly. *Hyacinth.*

Narciſſus (ſo called of a Greeke word, becauſe the ſmell of it comming vnto the noſe doth cauſe an inclination vnto ſleepines and heauines) would be ſowen in a fat ground that is hot and moiſt: it groweth alſo abundantly in *Languedoc* and *Italy*, and but a little in this countrie. *Narciſſus.*

The roote thereof boild or roaſted, and taken with meat or drinke doth procure vomit: the ſame braied with a little honie and applied doth heale burnings: taketh away the freckles and ſpots of the face, being mixt with the ſeed of nettles.

Corneflag (called in Latine *Gladiolus*) as well the blew as the white, would be planted of new plants in March and Aprill: or elſe of ſlips, but ſuch as haue roots, for they are neuer ſowen, neither doe they require any great tylling. Their flowers differ from the flowers of marigolds in this, in that the flowers of the marigold doe open at the ſunne-ſhine, but the flowers of corneflag doe ſhut and cloſe vp themſelues then, not opening againe but when it is cold and moiſt weather. The roots muſt be pulled out of the earth in the beginning of the *Corneflag or Gladin.*

ſpring, that they may haue a pleaſant ſmell, and after dried in the ſhadow of the ſunne. Some to take away the ſuperfluous moiſture thereof, which putteth them in danger to be conſumed with wormes, doe wet them with lee of aſhes, as well whiles they are in the earth as when they are out, and ſo dry them and keepe them for to procure the linnens and woollen garments to ſmell well.

The vertues of corneflag.
Sciatica.
Vlcers.
Dropſie.

The iuice of the roote put in a clyſter, doth appeaſe the paine of the ſciatica: the roote dried and made in powder, doth cleanſe and conſolidate hollow and filthie vlcers: being held in the mouth it cauſeth a good breath: laide amongſt clothes, it preſerueth them from all vermin, and maketh them ſmell pleaſantly. The iuice of the roote taken at the mouth ſundrie times, purgeth water in ſuch as haue the dropſie, eſpecially if it be taken mixt with the yelke of an egge halfe boiled. The roote mingled with the root of ellebor and twiſe ſo much honie, doth wipe away freckles, red pimples, and all ſpots of the face, if it be annointed thereupon. The decoction of the roote taketh away the obſtructions cauſed of a groſſe humour, prouoketh vrine, killeth wormes, and caſteth out the ſtone. The Italians make a preſerue of this roote whiles it is new with ſugar or honie, and vſe it in all the caſes aforeſaid: ſome make an oyle of the flowers infuſed in oile: which hath power to reſolue, ſoften, and appeaſe the griefe of colde rheumes or diſtillations.

Lillies.
Lillies of diuers colours.

Lillies muſt be planted in the moneth of March and Aprill in theſe countries: and in hot countries in the moneths of October and Nouember, as wel the white as the orange colour, in a fat and well digged ground: you ſhall make their flowers of what colour you will, if before you ſet them, you ſteepe their roots in ſuch coloured ſubſtance as ſhall beſt like you, and afterward likewiſe t o water the rootes when they are ſet and planted in their trench with the ſame liquor, and that after this manner. Some ſay that the flowers of lillies become red and purple, if their rootes before they be planted be ſteept in the lees of red wine or in diſſolued cinnabrium, and after watered with the ſame in the little pit or trench wherein it is ſet. Or elſe when lillies are in flower in the moneth of Iune, you muſt take ten or twelue plants and tying them togither to hang them in the ſmoake, for ſo they will put foorth ſmall rootes like vnto wilde garlicke, and when the time of ſetting is come, which is in the moneth of March and Aprill, ſteepe the ſame plants in the lees of red wine vntill they be prettily well coloured, as being become red when you take them out, afterward ſet them in prettie pits contriued in good order and water them ſufficiently with the ſaid lees: for by this meanes the flowers that will come of them will be purple coloured. You ſhall likewiſe haue yoong and freſh lillies all the yeere long, if before they be open you gather them and after cloſe them vp in ſome bottell or well ſtopt veſſell, that ſo

Purple coloured lillies.
Freſh lillies.

they

they may come by no aire. Or elſe cloſe them vp in ſome oaken veſſell well pitched, ſo that there can no water get in, and after ſinke the veſſell in ſome well, ceſterne or running water, for ſo they will keepe yoong and freſh all the yeere. And if at any time during the whole yeere you would vſe them, ſet them in the ſunne, that ſo by the heate thereof they may open. And to the end that lillies may flower at many times, when you ſet their roots, you ſhall ſet ſome of them twelue fingers within the ground, others eight and ſome fower, for thus you ſhall ſtill haue flowring lillies for a long time.

Lillies in flower at diuers and ſeuerall times.

A cataplaſme made with the onion of the rootes of lillies, hogſ-greaſe and the oyle of cammomill doth maturate and ripen buboes. An oinſment made of the ſaide roots, oile of bitter almonds, and white waxe, hath ſingular vertue to poliſh and ſmooth the face, and to take away the wrincles of womens faces. The water of lillies diſtilled out of an alembeck, doth take away the wrincles of womens faces, & make them looke very faire & white. The roote boyled or roſted in hot embers, and ſtampt with oile oliue, is a ſingular remedie againſt all ſorts of burning, as well of fire as water. Being boyled with garlicke and ſtampt in the lees of red wine, cleereth womens faces and countenances, which haue but ill colours after their lying in bed, if they beſmere their faces therewith at nights, and in the morning waſh them with barely water. This roote roaſted and ſtamped with olde ſwines greaſe, and applyed to the cornes of the feet, doth wholy ſpend them, if they be kept thereto but three whole daies together: the diſtilled water of the flewers with a little ſaffron and ſweete zylocaſſia, helpeth women in childbirth and deliuereth them alſo of their afterbirth: the oyle that is made of the flowers by infuſion, is good to ſoften all manner of hardnes in ſwellings or otherwiſe: if you chafe the priuie parts with oile of linſeed, and apply woolle wet in theſe oiles vpon the belly, women that are in trauell will finde great eaſe in the ſame.

The vertues of lillies.

Wrinkles.

Water of lillies.

Burning and ſcaldings.

A ſmooth and gliſtring hew.

Small paunces (otherwiſe called autumne violets) deſire a dry and ſandie place: they are to be planted in the ſpring time, and beare flowers continuing to autumne, yea to winter, if ſo they be oft watered and carefully handled. The leaues or iuice of ſmall paunſes taken at the mouth or applied outwardly, are ſingular good to conglutinate wounds: the leaues of ſmall paunſes boyled and druncke doe ſtay the falling ſicknes in children when they froth and ſome: the ſame flowers boiled with their herbes and drunke, doe cleanſe the lungs and breaſt, and are good for inward inflammations. The leaues dried and made in powder and drunke with red wine to the quantitie of halfe a ſpoonfull, haue great force to ſtay the falling downe of the fundament.

Small paunces.

The nine and fortieth Chapter.

Of sweet smelling herbes.

Basill.

BAsill as well the great as the small is sowen in Aprill and May in a fat ground, and commeth vp quickly, if so be that by and by after it is sowen, it be watered with water somewhat heated: It may be sowen likewise in autumne, and the seed would be watered with vineger, for so (though it be but a very little) it wil grow forth into braunches. If you sow it in a drie ground lying open vpon the sunne, it will by and by turne and become either mountaine tyme or cresses. When you haue sowen it you must draw vpon the ground some rouler to fasten and set it close together, for if it should lye light & hollow, the seede would easily corrupt. It must be watered at noone-tide, cleane contrary to other herbes which would be watered at morning or euening. To cause it to grow great, it is good to crop it oft with your fingers and not with any yron thing. Some report a maruellous strange thing of basill, as namely that it groweth fairer and higher, if it be sowne with curses and iniuries offred vnto it: and further that there is a deadly hatred betwixt amber and basill: for whereas amber or blackeier is giuen to draw strawes vnto it vpon the touching of them, it driueth and putteth farre from it the leaues and stalkes of basill.

Basill neuer shrinketh better, then when it is cursed.

Hatred betwixt amber and basill.

Such as are subiect vnto headache, or feare to be troubled therewith, must shun the smell of basill altogether: for the smell thereof begetteth paine and heauines of the head, yea sometimes it ingendreth in the head little small wormes, like vnto scorpions: as we reade to haue hapned to a certaine Italian in our time (as Monsieur *Houlier* D. in Physicke doth testifie in the beginning of his *Practica*) in whose braine the oft smelling of basill did beget a scorpion, which caused him to endure extreame paine, and brought him to his death in the end. The greatest vertue that this herbe can haue is, that if a woman doe hold the roote of basil in her hand, together with a swallowes feather when she is in trauell, she shall be deliuered by and by without any paine.

The smelling of basill doth cause great paine and scorpions in the head.

M. I. Houlier.

To be deliuered of childbirth without paine.

Rue.

Rue as well that of the garden as the other which is wilde, doth not loue either a moist or cold ground, neither yet a ground made very fat with dung: but rather a hot and drie ground free from winde, and where the sunne shineth much, in respect whereof it must be couered with ashes during the winter time: for the naturall heate of the ashes doth cause it to resist the cold. It may be sowne in March, August and September, although in deede it grow better set of rootes or branches, then sowne. When it groweth old it degenerateth into a wooddie substance, and therefore you must cut the stalkes twise euery

yeere

yeere euen to the root, to recouer his youth againe: it muſt not be ſuffred (if poſſibly it may be let) to flowre, for if it be ſuffred to put forth flowres, it groweth ſo much the more drie. Some report that this herb hath a maruellous property, as that if it be toucht or come neere vnto, be it neuer ſo little, by a woman that hath abuſed her body, or that hath her termes, that it dieth by and by. *The bewraier of women.*

To cauſe that it may grow faire and haue a more pleaſant ſmell, it muſt be planted vnder the ſhadow of a figge-tree, or grafted in the rinde of a fig-tree: for the warmth and ſweetneſſe of the fig-tree doth temper the ſharpneſſe and acrimony of the rue. Some ſay likewiſe that rue will grow fairer, if the branches thereof be ſet in a beane or onion, and ſo put into the ground. It is likewiſe reported, that it groweth fairer, if one curſe and hurt it when they ſet and plant it. But looke how friendly and kinde it is to the figge-tree, ſo much it is enemie vnto and hateth the hemlocke; likewiſe gardiners when they would pull vp rue, for feare of hurting their hands, rub them with the iuice of hemlocke. *Rue thriuing beſt when it is moſt curſed.* *Rue and hemlocke are enemits.*

Wilde rue is of greater force than the garden rue, and of a more vnpleaſant ſmell, and alſo a more dangerous ſmell: furthermore of ſo ſharpe a vapour, as that if it come neere vnto the face neuer ſo little, it will breed the wild fire in it. The ſeed both of the one and the other by the hot and drie temperature it hath, drieth vp the ſeed of man, and maketh him barren: the ſame ſeed in decoction is good for diſtillations and the moiſture of the matrix.

Rue hath a ſingular vertue and force againſt all manner of venome. Likewiſe we read that the king *Mithridates* was accuſtomed to vſe an opiate made of twenty leaues of rue, two drie figs, two olde walnuts and a little ſalt, to preſerue his ſtate againſt all manner of poiſon. For this cauſe you muſt plant in your gardens and neere your ſheepecoates, houſes for your fowle and other cattell, great quantity of rue: for adders, lizards, and other venemous beaſtes, will not come neere vnto rue, by the length of the ſhadow of it. Some alſo hold it as a tried thing, that to driue away cats and fulmers from hen houſes and doue houſes, there is nothing better, than to ſet rue at the doores thereof or round about them. And that to free a roome of fleas and gnats, it is good to water the ſame with water ſprinkled about with a branch of rue. In the plague time it is not good to put rue neere vnto your noſe (contrarie to that which wee ſee many men practiſe) becauſe by the ſharpeneſſe of the ſent there is cauſed a heate and excoriation of the part which it toucheth: notwithſtanding to draw out the venome that is in a bubo or peſtilent carbuncle, there is nothing better than to apply thereupon a cataplaſme made of the leaues of rue ſtampt with leauen, hogs greaſe, onions, figs, vnquencht lime, ſope, cantharides, and a little treacle. If a man haue eaten of hemlock, ceruſe, mandrakes, *Mithridates his opiate for the plague.* *Rue an enemy to venomes and poiſons.* *Rue an enemy to cats and fulmers.* *That rue ſhould not come neere to the noſe.* *For a bubo or plague ſore.*

blacke poppie, or any other herbes, which through their great coldneſſe haue cauſed them to be ſleepie and blockiſh, they may profitablie vſe the the iuice of rue, to drinke it for the deliuering of them from ſuch danger, or elſe the wine wherein it hath beene boiled. The diſtilled water of rue powred into wine and roſe-water of each as much, is good for the weakeneſſe of the ſight.

Mints. All ſorts of mints whether garden or wild, doe nothing deſire the ground that is dunged, fat, or lying open vpon the ſunne, but rather a moiſt ground neere vnto water, for want thereof they muſt be continually watred, for elſe they die: it is more ſowne than ſet; but if it be ſet, then it may be either of roots or branches, in autumne or in the ſpring time, eſpecially about the twelfth of March or September. Who wanteth the ſeed to ſow it, may in ſteed thereof ſow the ſeed of field mints, putting the ſharpe point downward, thereby to tame and reclaime the wildneſſe of it. When it is growne it muſt not be toucht with any edge toole, becauſe thereupon it would die. Neither need you take care to ſow it euery yeere, for it will grow of it ſelfe without being ſowne or ſet in great abundance.

The vertues of mints. Mints ſtampt and applied to breaſts too hard and ful of milke doe ſoften them, and hindreth the curding of the milke: ſtampt with ſalt, it is good againſt the bitings of a mad dog: ſtampt and put into a cataplaſme it comforteth a weake ſtomacke, and ſtrengtheneth digeſtion: two or three ſprigs of mints taken with the iuice of a pomegranate, ſtaieth the hicket, vomiting and ſurfets. It is good to help them which haue their ſmelling, by putting it oft to the noſe. The leaues dried, made in powder, and drunke with white wine, doth kill the wormes in yong children. *Wormes.* Such as loue milke, after they haue eaten it, muſt by and by chaw of the leaues of mints, to ſtay the quailing of the milk in their ſtomacks: for mints haue the ſpeciall propertie of keeping milke from curding, as alſo to keepe cheeſe from corruption and rottenneſſe, if it be ſprinkled with the iuice or decoction of mints: being applied vnto the browes, it aſſwageth headach comming of cold. The water of the whole herbe diſtilled in Maries bath, in a glaſſe alembecke, and taken the quantity of fowre ounces, doth ſtay bleeding at the noſe, which is a very ſtrange thing: they that would liue chaſtly, muſt not ſmell vnto nor eat any mints: and therefore in ancient time it was forbidden captaines in warre to eat any mints.

The curding of milke. *To keepe cheeſe.*

Calamint. Calamint, (otherwiſe called *Mentaſtrum*) delighteth in the ſame ground that mints, we ſee it likewiſe grow in vntilled grounds neere vnto high waies and hedges. It prouoketh the termes in women, whether it be taken at the mouth or in fomentation, and that with ſuch violence, as that women may not in any caſe meddle with it, if they take themſelues to be with child: it is ſingular good vſed in fomentation for the paines of the ſtomacke, for the colicke and diſtillations: the

the iuice thereof taken at the mouth killeth wormes in the bellie, and bing dropt into the eare, it killeth them there also.

Thyme as well of Candie as the common, doth grow better planted then sowen, and craueth a place open vpon the sunne, neere vnto the sea and leane, and it must be planted at mid-March in a well tilled ground, that so it may the sooner take: as also that it may growe the fairer and fuller of leafe, it will be good to water the ground oft with water wherein hath beene steeped for the space of one whole day drie thyme somewhat bruised. If you be disposed to gather the seede, you must gather also the flowers wherein it is contained, seeing they cannot be sundred. *Thyme.* *Goodlie thyme.*

A cataplasme made of thyme boiled in wine, appeaseth the paine of the sciatica, and the windinesse of the bodie and matrix. The smelling of thyme is soueraigne to raise them that haue the falling sicknes out of their fit, and also to keepe them from their fit, by decking their bed about with the leaues thereof. The oft vsing of thyme with wine or whay, is good for melancholicke persons. *The vertues of thyme.*

Winter sauorie craueth no fat, manured, or well tilled ground, but rather an open, stonie and light ground, lying so as the sunne may shine full vpon it. Both thyme and winter sauorie are good for the nourishing of bees, and for the preseruing and seasoning of meates: they are also called fine, sebtill, or small and slender herbes. *Winter sauorie.*

Organie, otherwise called bastard margerome, loueth a rough, stonie, peble, weake and yet well furnisht ground, and withall craueth a manured ground, as also to be watered, vntill it be growne vp to his full bignes, notwithstanding it be seene to grow in many places without watering or dunging. It may be remoued of little sproutes or sciences, and the lower end set vpward, to the end that it may put forth new springs & shutes; & be sown of his seed, the which the elder it is, so much the sooner it will put forth of the earth, although that organie do not ordinarily shew it selfe before the thirtith or fortith day after the sowing of it: in many places it is sowne neer vnto bees, because they willingly loade themselues from thence and make singular honie. *Organie.*

Organie boild in wine and laid vpon the region of the raines, doth take away and vndoe the difficultie of making water: being boiled in wine and druncke, it is good against venemous beasts, or the stingings of scorpions and spiders. A cataplasme made of Organie and barly meale boild together, resolueth the tumours vnder the eares. The decoction thereof is good to comfort the sinewes, and the relaxed and weake partes: the seede thereof drunke with wine doth prepare aad dispose a woman to conceiue: the flowers and leaues of the saide organie dried at the fire in an earthen test or melting pot, and being wrapped vp verie hot in a cloath, and applied vnto the head, and kept fast tied thereunto, doth cure the rheume comming of colde. *The vertues of organie.*

Hissope.

Hissope affecteth a place free from shadow, and lying open vpon the sunne: it may be set or sowen about the twelfth of March. It must bee cut in the moneth of August, and dried to put in pottage in winter.

The vertues of hissope.

Amongst other principall vertues that it hath, it is of great vse for the affects of the lungs, and to prouoke womens termes; if there be a broth made thereof to suppe fasting in the morning. Some say that the sirupe of hissope, taken oftentimes with fowerfold so much of the water of pellitorie of the wall, causeth the stone and much grauell to auoid from the reins: hissope with figs, rue, and honie boiled together in water and druncke, is good for those that are short breathed, & for old & hard coughes: stampt with salt, cumine, and honie, and applied, healeth the stingings of scorpions: stampt with oile and rubd, it killeth lice: pilles made of hissop, horehound, and pionie rootes do heale the falling sicknes.

Sommer sauory.

Sommer sauorie doth delight in an open sunne shining place, and therefore must be set or sowne in such a one, not in a fat or manured ground: for it is often seene growe of it selfe in leane groundes and neere vnto the sea. It groweth more delightfully and of a better taste, if it be sowen amongst onions. It is very good for sauce to meat.

The vertues of sauorie. The drousie disease. The sciatica.

The leaues and flowers applied vnto the head in forme of a cappe or garland, doth awake the drowsily inclined. A cataplasme made of sauorie and wheate meale doth cure distillations.

Coriander.

Coriander sorteth well with any kinde of ground, notwithstanding in a fat and newe ground it groweth a great deale more aboundantly, and it seeketh for an hot aire: againe, that which groweth in a sunnie place doth ouerthriue that which groweth in a shadowed place: when you go about to sowe it, choose the oldest seede you can get, for by how much it is the elder, by so much it is the better, so that it be not mouldie and foughtie: sowe it also in a fat and moist ground, and yet despise not a leane ground: and to cause it to spring vp the sooner, you must steepe the seede in water two daies before you sowe it. If you must dung the grounde where it is to be sowen, it must be with sheepe or goates dung rather then any other.

The vertues of coriander.

The excessiue heate thereof bringeth headach, and the trembling of the braine, being eaten after meate, it comforteth digestion, and dispelleth windines so that it be prepared. The way to prepare it is as followeth: you must hauing dried it well cast vpon it very good wine and vineger mixt together, and leaue it thus sprinkled and wet the space of fower and twenty howers, then dry it vp, and keepe it for Physicke vse: being stamped in vineger and cast vpon flesh, it keepeth it from corrupting. It prouoketh womens termes, and some say, that looke how many seedes a woman drinketh with white wine, so many daies shall her termes continue. The seede drunke with the iuice of

Digestion. Windines.

To keepe flesh. It prouoketh the tearmes.

pomegra-

pomegranats, killeth the wormes in children. The iuice thereof with ceruſe, litharge of ſiluer, vineger, and oile of roſes, healeth the wilde fire and all rednes: the ſeede ſtampt in vineger, doth keepe the fleſh from corrupting in ſommer. *Wormes.* *Wild fire.*

Sage, aſwell the little as the great, is planted of branches writhen at the foote, and alſo of rootes in the ſpring and Autumne. It is ſowen alſo at the ſame time: the roote delighteth to be laide about with lee aſhes. It muſt be ſet neere vnto rue, to keepe it from adders and lizardes: which vſe to take vp their lodging neere vnto ſage, as may be knowne by the leaues, which haue their tops oftentimes withered and dried, the ſame comming of hauing beene toucht by ſerpents. Sage refuſeth neither hot nor cold aire, howbeit naturally it groweth in a barren, ſtonie, and ill conditioned ground: and that in ſuch ſort as that in ſome places of Spaine, the mountaines are all ouergrowen therewith, and the country inhabitants burne no other woode. Notwithſtanding, to growe faire it would be well digged about, and kept cleane from leaues and ſtalkes that are dead. *Sage.*

It hath a ſingular vertue to comfort the ſinewes that are hurt by being troden vpon, or otherwiſe become weake. And for this cauſe ſome make ſage wine for to drink, and a fomentation with the decoction of ſage for the trembling of the handes, and other partes. It comforteth the mother being taken in a fume at the ſecrets parts: by ſuch fume it alſo ſtaieth the whites: ſuch as cannot beare their conception out their time, but miſcarie vpon ſlight cauſes, muſt oftentimes in the morning eate ſome ſage leaues, for they ſtrengthen the retentiue faculty, keepe aliue and ſtrengthen the childe, and make women very fruitfull. And this is the cauſe why the Egyptians after a great mortalitie conſtrained their wiues to drinke the iuice of ſage with a little ſalt, keeping thēſelues fower daies from hauing to do with their husbands, & then afterward to lie with them, that ſo they might cōceiue & bring foorth many children. To ſtirre vp appetite, and cleanſe the ſtomacke full of ill humours, ſage muſt be vſed oftentimes in pottage and otherwiſe: it aſſwageth the paine of the head, and cleanſeth the teeth and gums: it maketh a ſweete breath being boiled in wine: the diſtilled water thereof doth cleare the ſight: the conſerue of the flowers of ſage hath the like vertues. *The vertues of ſage.* *Weakenes of the ſinewes.* *The trembling of the partes.* *To cleanſe the ſtomacke.*

Oake of *Ieruſalem* (called of the Latines *Botrys*) craueth a drie and ſandy ground, or elſe a waterie ground, but ſuch a one as is ſandie or grauelly: we behold it alſo now and then to grow in ſwift running brookes: being once ſowen it needeth not to be ſowen againe afterward: for it groweth againe euerie yeere and that as it were in manner of a ſhrub. It hath vertues much like vnto thyme, that is to ſay, it is good againſt the ſuppreſſion of the termes and vrine: being dryed and laid in wardrobes, it giueth a verie good ſmell vnto the garments, *Oake of Ieruſalem.* *The vertues.*

and

and keepeth them from vermin. The decoction thereof with licorice is woonderfull good for such as haue a short breath, and are stuffed in their lungs, if you put thereto a little sugar or syrupe of violets, yea and furthermore to such as spet matter, vpon no other penaltie, but that it be vsed a long time. The herbe parched vpon a hot tyle, and besprinkled with malmesey and applied vnto the belly asswageth the paines of the matrix, yea and more too, if you adde thereunto the leaues of mugwoort, and the flowers of cammoill, all fryed with oile of lillies and the yelke of an egge.

Horehound. Horehound (called in Latine *Marrubium*, or *Prassium*) as well the blacke as the white groweth in euery ground, but rather in an vntilled then in a tilled ground: you may also see it grow neere vnto wals, hedges, waies, and borders of fields: it is true that the wilde desireth watrie places, as ditches, little riuers, moist and low places. It is verie good in decoction for the cough and difficultie of breath, because it cleanseth the lungs and causeth spetting: it prouoketh womens termes and bringeth forth the afterbirth.

Wormwood. Sea, Romaine, and common wormwood is not so much sowen or set because of his smell, as for the profit that it bringeth vnto the health. The Romane groweth in a sandie ground: the sea wormwood groweth in a salt and ashie ground: the common in hilly, stonie, drie and vntilled grounds; for to set them you must writhe the roots.

The vertues of wormwood. A weake stomacke. Wormwood amongst other his vertues almost infinite and admirable, doth especially comfort the ffomacke laden with cholericke humours, but not the stomacke oppressed with flegmaticke humours, and for that cause there is a wine made of wormwood, and called by the same name. The decoction of dogs-grasse his roots and the crops of wormwood, doe heale the *Iaundise.* *Iaundise.* The conserue of the crops made of a pound therof, and three pounds of sugar doth cure the old, inueterate, and desperate dropsie if it be oftentimes vsed after purging: it doth preserue likewise from drunkennes. It is an antidote in case a man haue eaten venemous mushroomes, or taken downe any other venom especially the hemlocke, as also in bitings and stingings of spiders and other venemous beasts. The iuice mingled with the kernels of peaches doth kill the wormes. The leaues made into ashes, and mingled with oyle of roses doth make the haire blacke. The leaues laide in wardrobs, do keepe the garments, and doe driue away flies and gnats.

Wormes. To make the haire blacke.

Sothernewood and his vertues. Sothernwood groweth best being planted of rootes or shootes, for it doth not so well being sowen of seede. It cannot abide much colde, nor much heate, and therefore it must be planted in some such place of the garden as is temperate. The seede the weight of a French crowne stampt with some of the leaues in white wine, adding thereto an old nut, and a little bole armoniake, all being strained and drunke,

is

is a singular drinke against the plague, and all manner of poison. The crops of the tops of the leaues, and the flowres being beaten & stampt in oile, and made into the forme of a liniment, do serue to shift off the shiuerings of agues, if so that the soles of the feet and vertebres of the backe of him that hath the ague be rubd therewith. Sothernwoode taken inward, or applied outward, doth kil wormes in yong children. It is true that *Galen* forbiddeth the taking of it at the mouth, because it is an enemy to the stomacke.

The plague. *Poison.* *Shiuerings of agues.* *Wormes.*

Rosemary loueth chiefly a reasonable fat grounde: it groweth in any aire, but best by the sea sides, and thereupon it beareth his name. It must be planted in the Spring and Autumne, of rootes or branches writhen and set fast in the earth, and that in a warme place, or at the least lying open vpon the sunne, and not such a place as is very moist or subiect vnto the northren winde, because this plant can hardly endure the colde, and therefore it must be planted vpon the South vnder some wall, and the good time of planting of it, is, when it will pricke, and then you must take off the small yoong sprigs, and set them three inches within the earth, making the earth fast and close vnto them aboue: or els of some part of the most leauy branches thereof, which being afterward helped by making the ground light, doth spread and continue fresh, hauing no need to be watred, except at the very time of setting of it, if the ground be fat: and yet notwithstanding if it be watered, it will prosper the better, and flourish the more. So long as it is yong, it would be diligently weeded and picked: it requireth no dung, but onely a good mould, and to be compassed about the roote with good earth: the lees of wine and the scraps broken off from bricks, laid at the foote thereof do cause it to grow maruellously. There are two sorts of rosemary: the one bearing seed, and the other not. Some plant it for foode neere vnto hiues, because it flowreth betimes, and for that the bees do greatly delight in it, and by it do better continue in health, as also make better honie than those which feed not vpon it at all: the flowres of it will keepe a yeere or two without being spoiled, if you gather them cleane and not mixt with any filthy thing, hauing also dried them a little in the sunne, vntill they haue lost their newnes and freshnes: afterward drie them vp throughly in the shadow, and put them not vp to keepe till they be perfectly dried.

Rosemarie.

It is good in the plague time to perfume the house with rosemary, for the fume thereof driueth away the ill aire. The leaues and flowres are good against headach, especially to stay the whites, if a woman doe vse them long time euery morning: but more speciallie to make the sight better, if the party that hath the weake sight doe eate fasting both the leaues and the flowres of rosemarie ioint together, with bread and salt euery morning. The flowres thereof made in conserue

The vertues of rosemarie. An euill aire. Headach.

doe

do comfort the stomacke, and are good in melancholike passions, the falling sickneſſe, conuulſions and palſies. The ſeede drunke with pepper and white wine, do heale the iaundiſe, and take away the obſtructions of the liuer. The decoction of the leaues in white wine do comfort weake and oppreſſed ſinewes: if you waſh your head therewith it will make a hard skin, and comfort the little braine, and keepe the haire from falling ſo quickly. Some do make tooth-picks of the woodie parts thereof, and thoſe very good, as alſo coales to draw the firſt lineaments and ground-worke of pictures and ſuch other things to be painted.

Iaundiſe.

Weake ſinewes.

Ieſamin.

The ordering of Ieſamine is like vnto that of roſemary, ſaue that Ieſamine doth continue alwaies greene, & not ſo ſubiect to froſt as roſemary, and is much in requeſt for arbours and ſhelters, and for the ſetting forth of a quarter. There may be made an oile of his flowres, infuſed a long time in oile of ſweete almonds, ſtrained in a bag from betwixt a preſſe, which will be ſoueraigne to comfort the weake ſinewes and other parts of the body troubled with cold diſtillations: and to appeaſe the frets of yong children.

Weake ſinewes.

Cold diſtillations.

Mountaine thyme.

Mountaine or wild thyme delighteth to be planted or ſowen in grounds neere ſome fountaine, ſmall rundle or well, and ſuch as is ill tilled, being drie in ſommer, and full of water in winter: and thus placed, it yeeldeth a great deale the fairer leaues. It requireth notwithſtanding a ground that is neither fat nor dunged, but open to the ſun, and would be oft tranſplanted. Sometimes it commeth of baſill that is ill husbanded.

Headach.

Mountaine thyme boiled in vineger and oile of roſes, aſſwageth the headach if the temples be rubd therewith: boild in wine and drunke, it prouoketh womens termes, bringeth forth the afterbirth and dead child: with hony it cleanſeth the lungs: helpeth the falling ſickneſs. the decoction is good for the windines, ſwellings, and hardnes of the matrix. The perfume of mountaine thyme killeth ſerpents and other venemous beaſts, and driueth away fleas. The weight of a French crown of the powder of mountaine thyme, drunke with water, aſſwageth the belly ach, and deliuereth the party which is troubled with difficulty of vrine.

To kill ſerpents.

Belly ach.

Difficulty or painfull making of water.

Penny-roiall.

Penni-roiall groweth well either ſowen or planted, wherein this muſt be marked, that if it be planted of the roote or branches in Autumne, it will bring foroth leaues and flowres in mid-Nouember: it being once planted, continueth alwaies, ſo that it be wel wed and pickt euery yeere: it muſt be watred very diligently. Penny-roiall is excellent good againſt the dropſie, for the ſpleene, iaundiſe, and furthering of womens deliuerance in trauell, as alſo to bring forth the afterbirth, and to procure the termes being drunke with white wine. The perfume of penny-roiall killeth fleas and venemous beaſts. A cataplaſme made

To prouoke womens tearmes.

To kill fleas.

made of penny-royall boiled in wine, doth asswage the paine of the sciatica. *The sciatica.*

Dill loueth better to be planted than sowen, and craueth chiefly a ground somwhat warm but more inclining to cold. If you would haue it to grow faire, you must water it oftentimes: when it is sowen, it is not needfull that the seed should be couered with earth, because it is not subiect to be eaten of birds. Dill hath power to take away belchings, and inward gripes, vomit, and hicket, and that only with smelling to it, to prouoke vrine and helpe the digestion of the stomack: it causeth a spring of milke in nurses, healeth the suffocation of the matrix, and ripeneth all manner of tumours. *Dill. Belchings. Gripes. Difficulty of making water.*

Anise craueth a well batled, tilled, fat and manured ground: it must be sown in march and oft watered. Euery man knoweth how good and profitable the seed thereof is, eaten in the morning: for such as are subiect to the gripes of the stomack and guts, to the hicket, belchings, stinking breath, and which desire to haue a beautiful and comly countenance: after meat, it also helpeth digestion: it is good for nurses to cause them to haue much milke. *Anise. A stinking breath. A faire face.*

Bishops-weed craueth such ground and such tillage as anise, which being once sowne, doth lightly grow there euery yeere by the seed falling from it: it groweth chiefly in rested grounds. The seed is excellent good against wringings and gripes, to prouoke womens termes, and vrine, if it be dunke with wine, so that it be vsed but seldom, for otherwise it causeth a pale colour: the perfume doth mundifie and clense the matrix, and maketh barren women fruitful, if together with this suffumigation, the barren woman do take euery second morning the waight of a dram of the powder of this seed, three howres before she eat any thing, continuing it for fowre or fiue times: but in the mean time the husband must lie with his wife, vpon such daies as she shall vse this powder: a thing prooued diuers times. *Bishops-weed.*

Caraway is sowen in the moneth of May, in a good, cleane and manured ground, in such sort as we haue said in the kitchin garden. The seed helpeth digestion, prouoketh vrine, expelleth windines, and hath the same vertues that anise hath, being made into powder, it is with good successe mixt amongst such remedies as are vsed to be giuen for drie blowes. *Caraway.*

Cumin doth grow faireſt when it is sowen in a fat and hot ground, or in a ground lying open to the eastern sunne amongst the potherbes (for so it groweth better) in the beginning of May. Some likewise say that for to make it grow faire and well, it must be cursed and railed vpon: it must not be watered so presently after it is sowen; but after it is put forth of the earth, it must be oftentimes watered. *Cumin.*

The seede taken at the mouth, scattereth the winds which breake vpward, it mendeth the inward gripes, and taketh away the difficulty *Windines. Gripes.*

to

Difficulty in making water. Drie blowes.

to make water, as also the blacknes of drie blowes, the powder thereof being presently applied after it hath beene beat very small and fine, and heated at the fire: being taken in a suffumigation, or put vp into the secret places, it helpeth conception: the fume of this seede taken vpon the face, doth make it pale and deadly: and this do they very well know which are giuen ouer to counterfait holines, syncere and vpright dealing, or the subduing or bringing vnder of the body.

Fennell.

Fennell findeth not it selfe agrieued with any aire or soile, howbeit naturally it is more inclining vnto a hot than vnto a cold aire, and vnto a grauelly ground, rather than vnto a better: onely it flieth and refuseth a sandy and altogether barren ground, as not thriuing any whit therein. It is sowen in the spring and autumne, and it is planted likewise at the same times, the stalks are remoued hauing put forth a tuft, euery one from another, or else the whole tuft only, notwithstanding the sweet fennell loueth rather to be sowen than planted, and that rather in the spring than in autumne, for so it groweth more sweete and beareth the greater seed. It must be sowen in and remooued vnto a ground open vpon the sunne and reasonably drie, and seldome sown, as not aboue one yeere. It must be kept very cleane so long as it is in growing, and vntill it be come vnto his full growth, for otherwise bad weedes would choake it.

Sweet fennell.

To haue very sweet fennell, put your seed in a Marsellis fig, and so sow it, or else mix hony with the earth wherein you sow it, or else steep the seed in hony one or two nights before you sow it, or else in the water of hony or in milke, changing the same and putting new in steed in such sort as we haue said in the handling of melons.

Cleare sight.

Fennell as well the leafe as the seed, is wholly dedicated to the clearing of the eies, and for this cause some draw the iuice of the leaues and stalks while they are yet tender, and drying it, keep it for the same effect. Sometimes the water of fennell is distilled all alone and by it selfe, or else mixt with hony. The seed of fennell is good to restraine wind, taken after meat, notwithstanding that it is hard of digestion, and bringeth but little nourishment vnto the body. It may be eaten green after the beginning of August, as also the buds and tender stalks may be preserued, and likewise the branches as they beare their seed, with salt and vineger in earthen pots to vse at all times, and especially whiles there is raigning any excessiue heat. The vse of fennell causeth women to haue great store of milke.

Windinesse.

Abundance of milke.

Margerome.

Margerome groweth of seede, rootes or shootes, as sage doth: it desireth shadowed places and that fat, well manured, and oft watered. It will be the fairer if it be remoued in the beginning of sommer. The roots must be defended from rats and mise: for this kinde of vermine doth it more iniurie than any other, which you shall finde and proue true, if it please you but to make trial thereof. The iuice presled

out

out of the leaues, and drawne vp into the noſtrils, doth purge the head: made into a lee, it drieth the rheumes, and ſcoureth away the filthines of the head. The broth wherein it hath boiled, is good againſt the beginning of a dropſie, as alſo for them that cannot make water well, and which are ſubiect to gripings. *To purge the braine.* *Dropſie.*

Mugwoort, whether it be ſet or ſowen, craueth a drie and ſtony ground, contrarie to another herbe reſembling it, and called herbe S. Iohn, and groweth in marſhes, and is indeed the male ſouthernwood. *Mugwoort.*

Mugwoort hath ſingular force againſt the bitings of ſerpents vſed as well inward as outward, as alſo againſt the plague: that it is ſo the Almaines doe ſufficiently prooue, who account not themſelues to haue any more ſoueraigne remedie againſt the plague then mugwoort made into aſhes, and afterward boiled into a chymicall ſalt to vſe ſo ſoone as they perceiue themſelues ſtriken with the plague, with fower or fiue ounces of good wine or malmeſey, and afterward to go lay themſelues downe in bed, to cauſe themſelues to ſweate two or three howers: it hath ſingular vertues againſt the diſeaſes of the matrix: for the leaues put into a bag, or made in forme of a cataplaſme, and applied warme from vnder the nauell vnto the flankes, doe procure the termes, and doe appeaſe in like manner the matrix relaxed, or out of order and place. The leaues ſtamped with oile of bitter almonds and applied vnto the ſtomacke, doe ſtaie the paine thereof. There is made a ſingular peſſarie to bring downe womens termes, with the leaues of mugwoort, myrrhe and figs, all being braied with oile of Ireos. The roote powdred and drunke with white wine, doth ſo purge the matrix, as that it caſteth foorth the mole and afterbirth: the iuice is with good ſucceſſe drunke againſt Opium; the powder of the dried leaues drunke with wine the waight of three drams, is exceedingly good for the ſciatica: ſome ſay that the trueller which carrieth mugwoort the whole herbe, tied vnto his leg or thighes, ſhall not finde himſelfe wearie at all, and that hanged at the entries of houſes, it withholdeth all incantations and witchcraftes. When a woman laboureth of childe, and cannot auoide her afterbirth, there is nothing better, then to applie vnto her vnder her nauell vpon her thighes and flankes, a cataplaſme made of mugwoort leaues boiled with barlie meale, but preſently after the childe or afterbirth is come forth, you muſt take away this cataplaſme, otherwiſe it would draw downe the matrix alſo. If you ſtampe the iuice of mugwoort with the yelkes of egges boild, adding thereto hogs greaſe and the ſeede of cumin, and applie it all in manner of a cataplaſme vpon the matrix, you ſhall remedie all the paine that ordinarily doth follow after childbirth. *The vertues.* *The matrix out of order and vnruly.* *Afterbirth.* *Paines of the matrix.*

Tanſie as well the great as the ſmall groweth in moiſt places as vpon the brinkes of riuers and ſmall brookes, and ſometimes in drie places, as we ſee it grow in waies, and in the edges of high waies. The *Tanſey.*

ſeede

Wormes. seede or flowers drunke with milke or wine, doth kill the wormes, and that is the cause why some call it wormebane. It serueth also to prouoke vrine, and to breake the stone and gravell of the reines, especially in men, as fetherfew doth the same in women.

Stone. Gravell.

Fetherfew. Fetherfew doth require the like ordering and ground that mugwoort doth, and they are also as it were of the like vertues, both of them appropriate vnto the affects of the matrix, but fetherfew surpasseth in this, that the flowers, but principally the leaues, stampt, and applied vnto the teeth or eare of the side that aketh, it wholy asswageth the paine of the teeth. And this is the cause why the Parisiens doe call it *Espargoutte:* because the leaues thus stampt and applied, doe cause to distill out of the mouth drop after drop the flegmaticke humour, which causeth the said toothach. It is good also for them which haue the swimming of the head, as also for them which are troubled with melancholie or with the stone.

Nept or cats mint. Cats mint or nept is a kinde of calamint, whereof we haue spoken before, so called, because that cats doe exceedingly delight in the smell thereof, and doe tumble themselues round vpon the leaues and stalkes: it groweth without any great husbanding in marshie and watrish places, as may easily be seene and tried. It is reported to haue a singular vertue in helping women to conceiue. In like manner physitions are woont to prescribe bathes and fomentations made of this herbe, for women that cannot conceiue and haue children.

Conception.

French lauander. French lauander being an herbe of a very good smell, and very vsuall in *Languedoc* and *Prouence*, doth craue to be diligently tilled in a fat ground and lying open to the sunne. The decoction, syrupe or distilled water doth comfort the braine and memorie, taketh awaie the obstructions of the liuer, spleene, lungs and matrix: but such as are cholericke must not vse it, because it disquieteth them mightily in causing them vomite, and altering them much by bringing a heat vpon all the bodie.

Lauander. The drie, stonie and sunne shining place is very fit for lauander, whether male or female: before it flower, it must be cut and picked very carefully. It s of a sweete smell, and good when it is dried to put amongst linnens aid woollen clothes, imparting of his sweetnes vnto them, and keepingof them from vermine. It is very excellent to comfort weake and wearied sinewes, or otherwise ill affected through some colde cause: and by reason hereof baths and fomentations made of lauander for palsies, conuulsions, apoplexies, and other such like affects, are very sueraigne: the flowers with cinnamome, nutmeg, and cloues, doe stale the beating of the hart: the distilled water of the flowers, taken in the quantitie of two spoonefuls, restoreth the lost speech, healeth the swounings and disease of the hart: the conserue and distilled water thereof doe the like: the oile drieth vp

Weake sinewes. Palsies. Conuulsions. Apoplexies.

rheumes,

rheumes, and being annointed vpon the nape of the necke, it is singular good against conuulsions and benummednes of sinewes.

All-good (otherwise called in French *Orualle*, bicause it is as much woorth as golde) groweth in any ground without seede and with seede: it delighteth notwithstanding to be often watered. The leaues stamped and applied doe draw foorth thornes and pricks that are fastened and ranne into any part of the bodie whatsoeuer: it doth in like manner bring the childe out of the mothers body being in trauell. The wine wherein it hath beene steeped in small quantitie doth make men pleasant and cheerefull and apt to carnall copulation. The seede thereof put into the eie, and turned many times round about the eie, doth clense and cleere it, in wiping away the flegmaticke humour, wherewith you shall well perceiue the seede to be laden, and as it were wrapt in small filmes after that it is taken out of the eies. The flowers and seed put in a vessell full of sweete wine whiles it yet purgeth, giueth it the taste of malmesey: it is true that such wine will quickly make one drunke and cause the headach, as we see that beere doth, wherein bruers boile clarey in steed of hops.

All-good, otherwise clary.

Cheerefulnes.

To cleare the sight.

Nigella of the garden must be sowen in a ground that is fat and well tilled. The fume of the seede taken doth stay the rheume, dry the braine, and causeth the smelling that is lost to come againe: boyled with water and vineger and holden in the mouth, it asswageth tooth-ache.

Nigella.

Sweete balme groweth rather in woods and forrests then in gardens; notwithstanding he that will haue it in his garden must sow it in a fat and well battild ground, where the heat of the sunne commeth not very strongly.

Balme.

It serueth to reioice the heart, and deliuereth the spirit from melancholicke imaginations and fansies: it is good not onely against bitings and stingings of venemous beasts, but also against the plague, in whatsoeuer manner it be vsed: and further if any man doubt himselfe to haue eaten any venemous or poisoned meat, as it falleth out often in them which haue eaten mushroomes and such like things: then this serueth for a singular remedie against the same. Such as esteeme it a fine thing to keepe bees to the end he may preuent their flying away and forsaking of their hiues, as also to cause them to come againe if they be gon away, doe rub the hiues with the flowers of sweete balme: as on the contrary to driue them and to cause them to forsake them they rub them with the flowers of fetherfew.

Cheerefulnes.

To keepe bees from flying from their hiues.

To driue them from them.

Cammomill as well the white as the yellow hath no neede of great tilling: it is sufficient to plant it in a drie, leane, and stonie ground.

Cammomill.

Cammomill is singular good to mollifie, resolue, rarifie and loosen, and in this respect there is no remedie better for lassitudes or

To mollifie, resolue, rarifie.

wearisomnes without iust outward causes then bathes made with the leaues and flowers thereof: the leaues of cammomill stampt with white wine, make a very good drinke to cure all sorts of agues, but especially tertians: for which reason the priests of Egypt did consecrate it vnto the sunne: also the water of cammomill drunke warme in the beginning of the fit, doth throughly heale the tertian by vomit: the leaues of cammomill yet greene, being dried vpon a tyle or hot fire-pan, do by and by appease the headach.

Melilot. Melilot refuseth no ground be it fat or be it drie, and yet it loueth to be watered. Melilot doth mollifie, resolue, and rarifie as doth cammomill, and yeeldeth a verie good smell, especially when it is new or when it raineth in sommer: it asswageth the ache of any part or member whatsoeuer it be.

Apples of loue. Many men being very desirous to adorne and set forth their garden with all sorts of plants, doe amongst the rest prouide to furnish it with apples of loue (which the Latines call *Mala insana*) by reason of the beautie of their fruite, which is as thicke as a cucumber drawing towards a red colour. They must be sowen in the spring in a fat and well battild soile, and where the sunne hath great power, because they cannot abide any cold: they craue the like ordering and husbandrie that the cucumber doth.

Many licorish mouths let not to be eating of these, no more then of mushroomes: they take away their pilling, they cut them in slices, boile them in water, and after frie them in the flower of meale and butter or oile, and then cast vpon them pepper and salt: this kind of meate is good for such men as are inclined to dallie with common dames and short heeld huswiues, because it is windie, and withall ingendreth cholericke humours, infinite obstructions and headach, sadnes, melancholike dreames, and in the end long continuing agues: and therefore it were better to forbeare them.

Mandrakes. Mandrakes as well the male as the female is more acceptable and to be commended, for the beauty of his leaues, fruit, and whole plant, then for the smell it hath: it must be sowen or planted in some shadowed place, a fat and well battild ground, and be kept from the cold which it altogither detesteth and cannot abide.

The vertues. The apples of Mandrakes procure sleepe, if you put but one of them vnder your eare when you are laide in bed: it is all but fables which is spoken of the roote which is not so cooling as the apple, and hath vertue on the contrary to drie, soften, and resolue all the hardnes of the liuer, spleene, kings euill, and such other tumours, how hard and rebellious soeuer that they be. Which is more, *Dioscorides* reporteth that if one boile the rootes of mandrakes with iuorie for the space of six howers, it maketh the iuory so tractable, and softneth it in such sort as that you may set what impression vpon iuorie that you

please:

pleaſe: peraduenture ſuch as bring vs vnicornes horne from thence, doe vſe ſuch deceitfull and wily dealing with vs, ſeeing by ſuch their cunning skill, they are able in ſuch ſort to ſoften iuorie or the harts horne, and thereby likewiſe able to worke it to the ſame forme which we receiue the vnicornes horne in at this day.

Golden apples.

Within this ſmall time there hath beene ſeene a plant ſomewhat like vnto apples of loue, bearing a round fruit like an apple, diuided vpon the outſide as the melon is with furrowes, in the beginning it is green, but afterward when it commeth to ripenes, it becommeth ſomewhat golden, and ſometimes reddiſh. This plant is more pleaſant to the ſight, then either to the taſte or ſmell, becauſe the fruit being eaten it prouoketh loathing and vomiting.

The fiftieth Chapter.

Of the forme of ſetting herbes in order, by proportions of diuers faſhions.

WE haue alreadie deliuered the forme of ſetting herbes in order, as well ſuch as are of a ſweete ſmell, as thoſe which are for noſegaies, and that either vpon particular beds or quarters: now we will ſpeake of the manner of beſtowing of them in proportions of diuers faſhions, and in labyrinthes or mazes. But in this courſe I cannot ſet thee downe an vniuerſall, and as it were inuiolable preſcript and ordinance, ſeeing the faſhions of proportions doe depend partly vpon the ſpirit and inuention of the gardiner, and partly vpon the pleaſure of the maſter and Lord vnto whom the ground and garden appertaineth: the one whereof is lead by the hops and skips, turnings and windings of his braine; the other by the pleaſing of his eie according to his beſt fantaſie. Notwithſtanding that there may not any thing be heere omitted, which might worke your better contentment and greater pleaſure, by looking vpon the beautie and comelines of this your garden-plot: I intend to ſet before you diuers figures of proportions, and the manner of drawing of them cunningly, to the end you may haue the meanes to chuſe thoſe which ſhall moſt delight you and beſt agree with your good liking. In which I deſire you to giue great thankes and acknowledge your ſelfe greatly beholden and bound vnto *Monſieur Porcher*, Prior of *Crecy* in *Brie*, the moſt excellent man in this arte, not onely in *France*, but alſo in all Europe: and not vnto me, who ſhall be but his mouth in deliuering what he hath ſaid, written, and communicated vnto me in precepts, yet extant and to be ſeene with the eie. To come therefore vnto the matter, all the ſweet ſmelling herbes and others for noſegaies, which we haue mentioned before, are not fit and good to make proportions

of. The moſt fit and meet are, penniroyall, lauander, hyſſope, wilde tyme, roſemarie, thyme, ſage, marierom, cammomill, violets, daiſies, baſill, and other ſuch herbes, as well thoſe that are of ſweete ſmell, as thoſe which are for noſegaies: as for example, lauander and roſemary of a yeere old to make borders about the proportions or knots; and as for boxe in as much as it is of a naughtie ſmel, it is to be left oft and not dealt withall. All the reſt of the herbes, as penniroyall, hyſſope, wilde thyme, thyme, ſage, marierom, and ſuch like, are fitteſt to be vſed about the quarters, or elſe in ſome ſuch prettie little deuiſes as are made in the midſt of borders, or whereof proportions of quarters without borders, as well whole as broken, are made.

The herbes whereof borders ſhall be made, muſt be more high and thicker ſet of leaues, then thoſe whereof proportions of quarters either whole or broken are made, or yet the other which are in the middeſt of the borders, that ſo the beautie of the knot or quarter, may be ſeene and diſcerned more eaſily.

I call in theſe places that the border which compaſſeth the proportion or quarter about, as alſo the alleyes of the garden: I call broken quarters, thoſe many ſmall parcels which are ſundred and ſeparate one from another. The proportions either without borders or with borders, are either equally ſquare in widenes and length, or elſe vnequally ſquared, that is to ſay, longer then they are wide, or wider then they are long. Or elſe of the forme and ſhape of an egge: or of a forme and faſhion that is mixt of a round and a ſquare, or of ſome ſuch other forme, as ſhall pleaſe the gardener: as for example the faſhion of a flower-deluce, of a true loues knot, of a lion rampant, and other ſuch like portraitures.

That which ſhall be in the midſt of the proportions with borders, or without borders, ſhall be of a ſquare forme, or of the faſhion of an egge, or round, or mixt of a ſquare and a round, or ſome other ſuch like forme.

If you be diſpoſed to plant any herbe in the midſt of broken quarters, it muſt not be ouer high, but leſſe and ſhorter then thoſe wherewith the proportions are ſet, that ſo it may not hide or hinder the ſight of any part of the quarter. It is true indeed that in this middlemoſt part you may ſet an herbe of a meane and middle height, yea, or ſome ſuch as for his bignes may reſemble a ſhrub or little tree, but it may not be thicke ſet with leaues, nor ſpreading farre abroad, but rather putting foorth his ſtalke vpright as doth the bay and cypres tree.

But in reſpect of the beautie and comelines of the quarter, you muſt not plant any thing in it, or if you doe plant any herbe, you muſt ſee that it be of a ſhorter ſtalke then that which compaſſeth it about: the knot that is made of borders, muſt conſiſt but of two ſortes of herbes: as for example of lauander or roſemarie, or boxe for the border:

der; and of penni-royall or hyſſope within. It is true that in the midſt and fower corners thereof, there may bee ſet ſome cypres or roſemarie, or ſome ſuch other herbe or little tree, which is not thicke ſet with leaues, nor ſpreading farre abroad, but riſing in height vpright.

But the knot made of broken quarters, may bee made of diuers and differing herbes, which notwithſtanding may not grow great and tall, becauſe they would hinder the view of the garden, but they muſt bee ſhort and thinne ſet with leaues, as ſage, penni-royall, margerom, cammomill, daiſies, violers, baſill, rue, and ſuch others, which herbes ſhall be planted in diuers quarters, to the ſetting foorth of greater varietie in the knot, and to giue grace vnto the little quarters. It is true that within ſome round quarters, or ſquares of broken quarters, you may worke ſome ſmall birdes, men, or other ſuch pourtraites made of roſemarie, according to your pleaſure and the inuention of your gardener.

The herbes wherewith proportions are ſet out and deckt, muſt bee planted of rootes or ſlips: the time to plant them is Ianuarie, Februarie, March and April.

It is true that if you plant herbes, eſpecially penni-royall and lauander vpon ſlips: the time of gathering of good plants will be at the end of Ianuary, and in the moneth of Februarie, and not later, becauſe this kinde of ſlip will not be frozen by any froſt that may happen, and withall in the meane time it doth not ſtande in neede of watring, becauſe it hath taken roote before the hot times of the yeere come in.

Againe, if you ſet herbes of the roote, you muſt ſtaie till March & Aprill, and looke well to it that your herbes haue ſound, liuing, and euerie way ſufficient rootes, for otherwiſe they will not be able to proſper, ſpread, and grow in the earth, but will die for the moſt part. It is meete alſo that when they are planted, you ſhould water them often, becauſe of the heat then growing more and more euery day, for otherwiſe they will wither, or grow ſmall and dwarfiſh, or die right out.

Wherfore for the greater aſſuredneſs, I could wiſh you to plant your herbes rather of ſlips than of rootes: for beſides that, it will be more eaſie and of leſſe charge and coſt to purchaſe ſlips, then to purchaſe the whole herbes with their rootes: it will be alſo leſſe labour and trauell for to preſerue and make to growe the one then the other: for the ſlips will aſſuredly grow without watering, and notwithſtanding any froſt, and they will ſhew faire and thicke leaued, by ſuch time as ſommer ſhall begin: to plant within the earth, whether it be roote, or ſlip, you muſt caſt trenches, rather with ſome ſhort handled hand-forke, or hand ſpade, then with a dibble, which you ſhall finde a great deale more eaſie. *Serfouette ſicbe.*

Beholde heere the greateſt part of the things which you are diligently to looke vnto before you put your hande to the worke of ca-

sting your proportions or knots: and whereas their whole beauty and commendation doth consist in a well framed and proportioned form, and in a well caried & appointed order of disposing them, such as may delight the eie: to the end you may attaine this commendable and well pleasing kinde of proportion in the contriuing of your quarters, you must first cast what is the space and whole contents of your quarter, wherein you mean to draw your proportions, that so according to the said contents, you may fit them with such forme as the place will afoord. After that you shall haue in your hand many measures of small cord and yet sufficient strong: many cord-reeles and dibbles, and such other things to finish the proportions which you desire to haue drawn in your quarter.

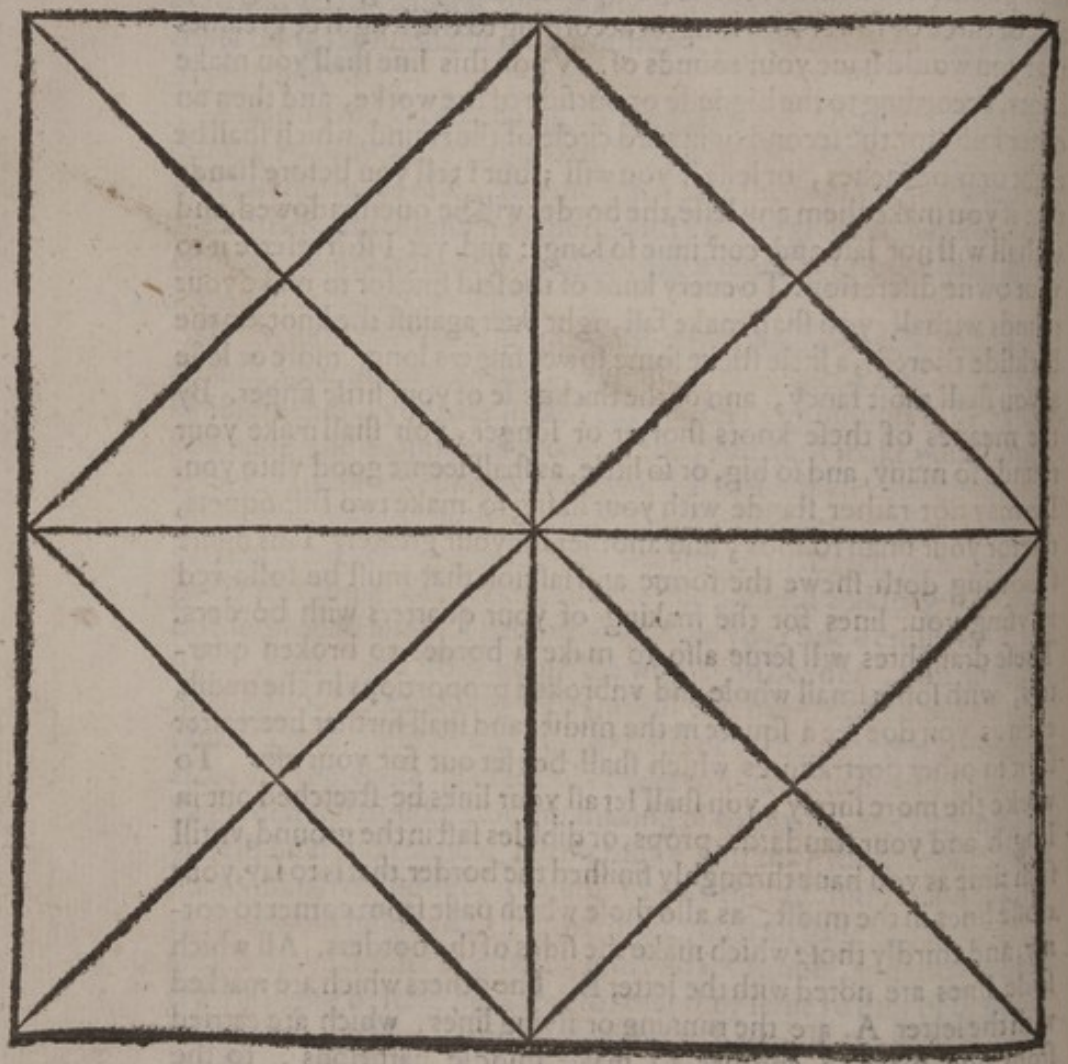
And thus much concerning the meanes which you shal vse in the finishing vp of a knot with borders. Before you stretch your line to draw and cast the shape of it, you must first take the breadth and length of the border, and that such as the quantity of the ground may conueniently and handsomly beare, and so make it more long and broad, or els long and broad accordingly.

It is true that if you haue ground inough, as about some sixtie foot square, after the measure of a common foote, euerie one containing twelue inches, you may make your border large inough; but and if you haue lesse quantitie of ground, then you must make your border lesse, and the proportions at large: you shal so finish vp your borders, as that in the midst of them you may haue some pretty litle knot. When you haue cast your grounde, you shall begin to stretch your line with good and firme line-reeles, to take the breadth and length of your borders round about. Then you shall draw your line a crosse, from the which crosse, and from about the which said borders, you shall not draw vp your line and line-reeles, vntill you haue marked out all your border, or at the least one side, or halfe of it, because this is the direction, for the whole quarter and border to: this is it, whereby you must be guided and directed for the making of compasses and largenesse of your squares and rounds. Furthermore you may stretch your line in the midst of the border, thereby to take the iust midst, and that for to direct and guide you. Furthermore you shall haue two lines of the length of the border or quarter, and two foote ouer, and these are called the flying or running lines, for that they serue to cary or remoue from place to place, for the planting of herbes in the saide borders. Again, you shall stretch out a line from corner to corner, because that without such line you cannot make vp your corners. And this is the manner of making your borders. As concerning the knot contained within the borders: to take the measure of the proportion or squares, you must haue two small rods, of the thickenes of a thombe, of willow, or some other straight wood, the one eight foote long, and the other

betwixt

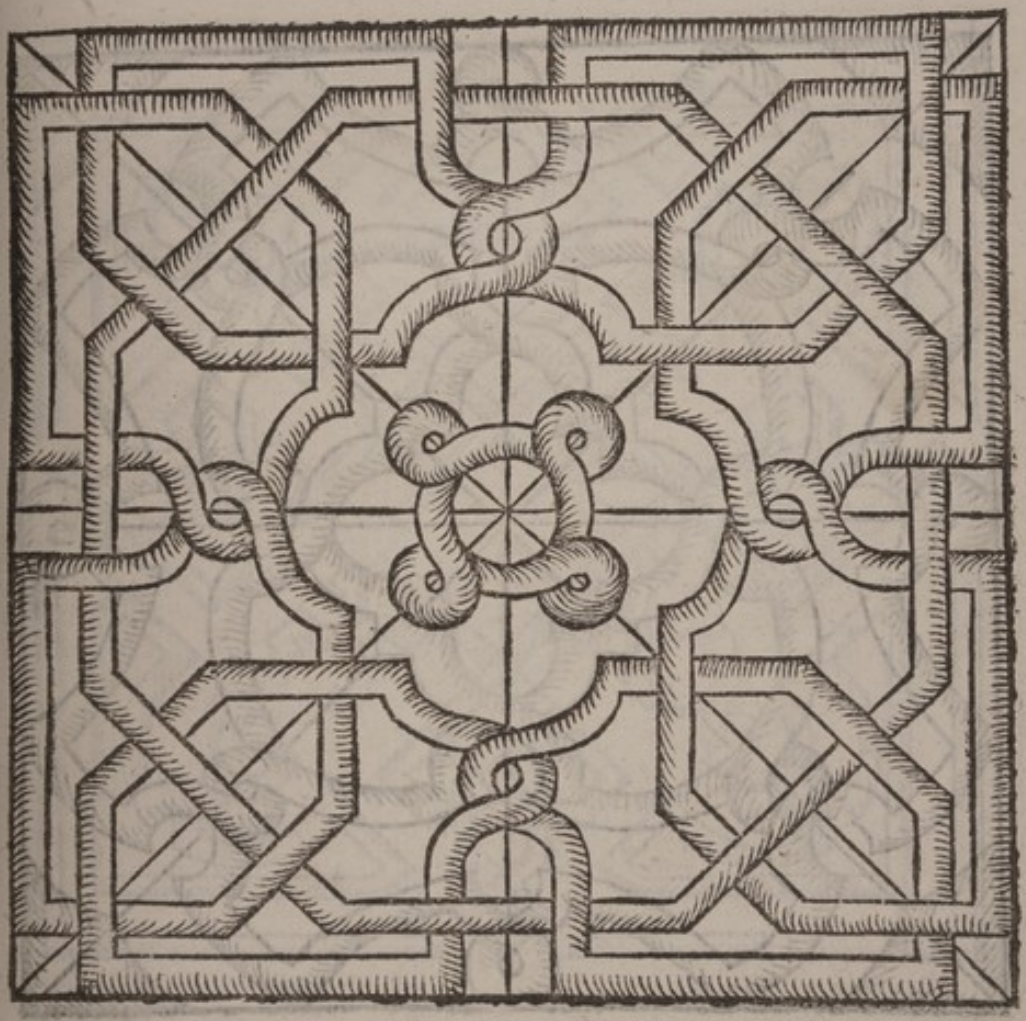
betwixt three and fower, the long one to serue for the largest workes, and the short for the smaller: vpon which rods you must marke out your proportions, whereof you meane to make your squares, or anie other forme that it shall please you to make. For round workes you must haue an instrument, commonly called of the gardiners Bilboquet, the patterne whereof you shall see heereafter, but giue it what name it pleaseth you, but this is the maner of making of it. You shall take a prop or standard, somewhat thicker then your thombe, you shall put thereto a line of the same thicknes that your gardening lines are, of three or fower foot long, or according to the length & greatnes that you would haue your rounds of. Vpon this line shall you make knots, according to the bigneſse or outside of the worke, and then an other knot for the second or inward circle of the round, which shall be eight or nine inches, or lesse if you will; but I tell you before hande that if you make them any lesse, the border will be ouershadowed, and withall will not last and continue so long: and yet I still referre it to your owne discretion. To euery knot of the said line for to make your rounds withall, you shall make fast, right ouer against the knot, on the backside thereof, a little sticke some fower fingers long, more or lesse as you shall most fancy, and of the thickneſse of your little finger. By the meanes of these knots shorter or longer, you shall make your rounds so many, and so big, or so little, as shall seeme good vnto you. If it may not rather stande with your liking to make two Bilboquets, one for your small rounds, and another for your greater. This figure following doth shewe the forme and fashion that must be followed in vsing your lines for the making of your quarters with borders. These draughtes will serue also to make a border to broken quarters, with some small whole and vnbroken proportions in the midst, euen as you doe see a square in the midst, and shall further heereafter see it in other portraitures which shall bee set out for your vse. To worke the more surely, you shall let all your lines be stretched out in length, and your standards, props, or dibbles fast in the ground, vntill such time as you haue throughly finished the border, that is to say, your crosse lines in the midst, as also those which passe from corner to corner, and thirdly those which make the sides of the borders. All which saide lines are noted with the letter B. The others which are marked with the letter A. are the running or flying lines, which are carried from one place to another to make middle partitions, to the treading of the roundes, and to the squaring of the saide border, and when as one side is downe, they are then to be taken vp, and to be pitcht downe elsewhere. And although that heere be fowre, yet two is sufficient, at the discretion of the gardener, who according as his number of workefolkes is more or lesse shall streth and drawe moe or fewer lines.

The maner of vſing, and platforme, ſhewing the practiſe of handling the lines, for the laying out of a ſimple quarter without any border. And how the lines muſt be continued and kept ſtrecht till the whole proportion be drawne out and finiſhed.



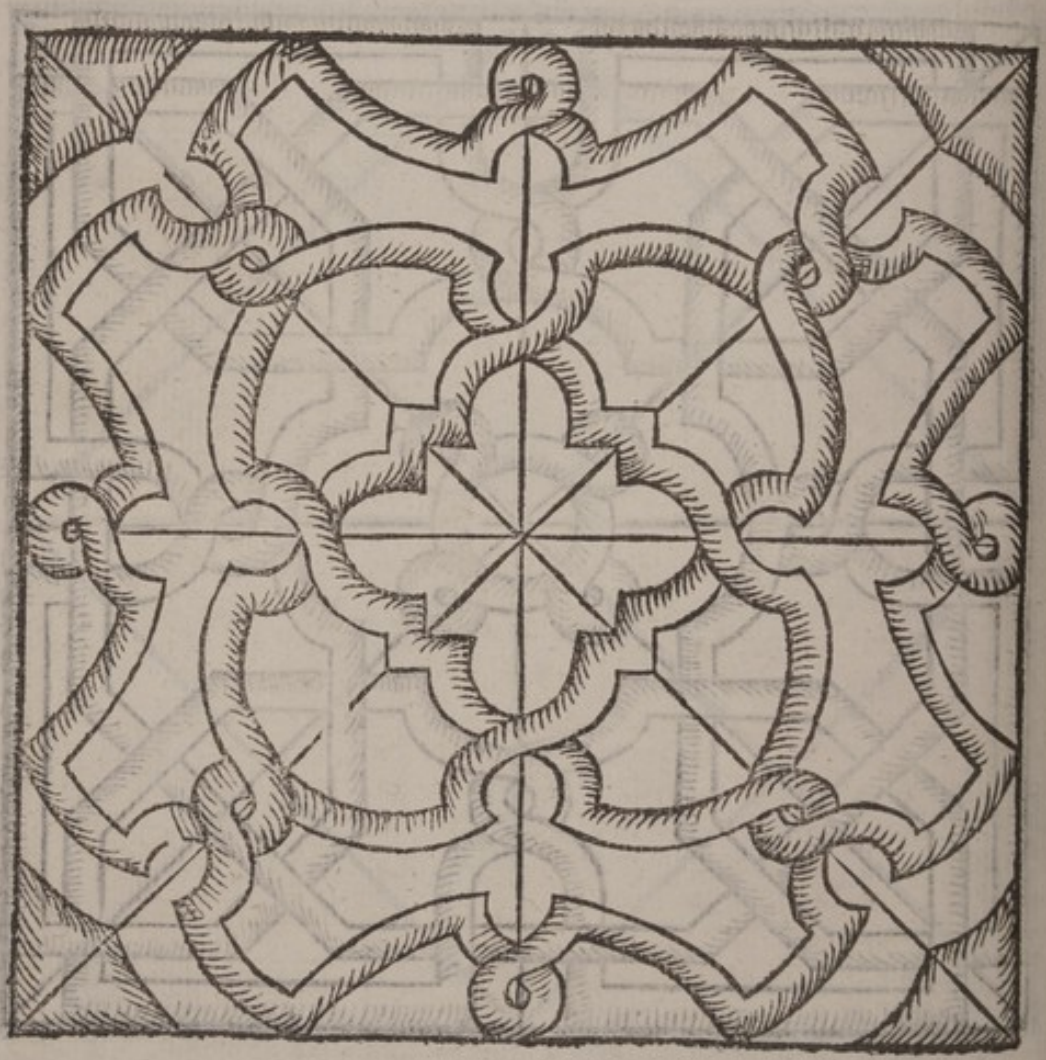
The

The vſe and manner of practiſing by the ſtretched lines.

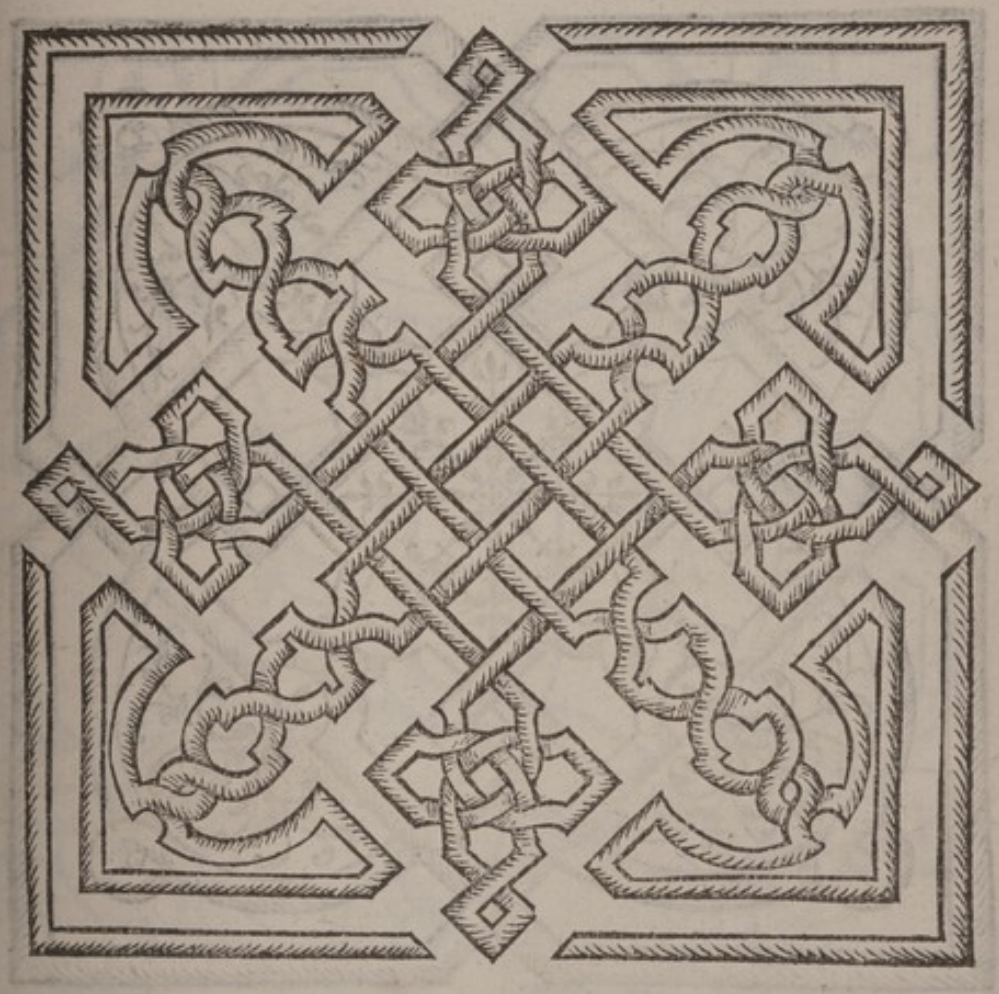


The

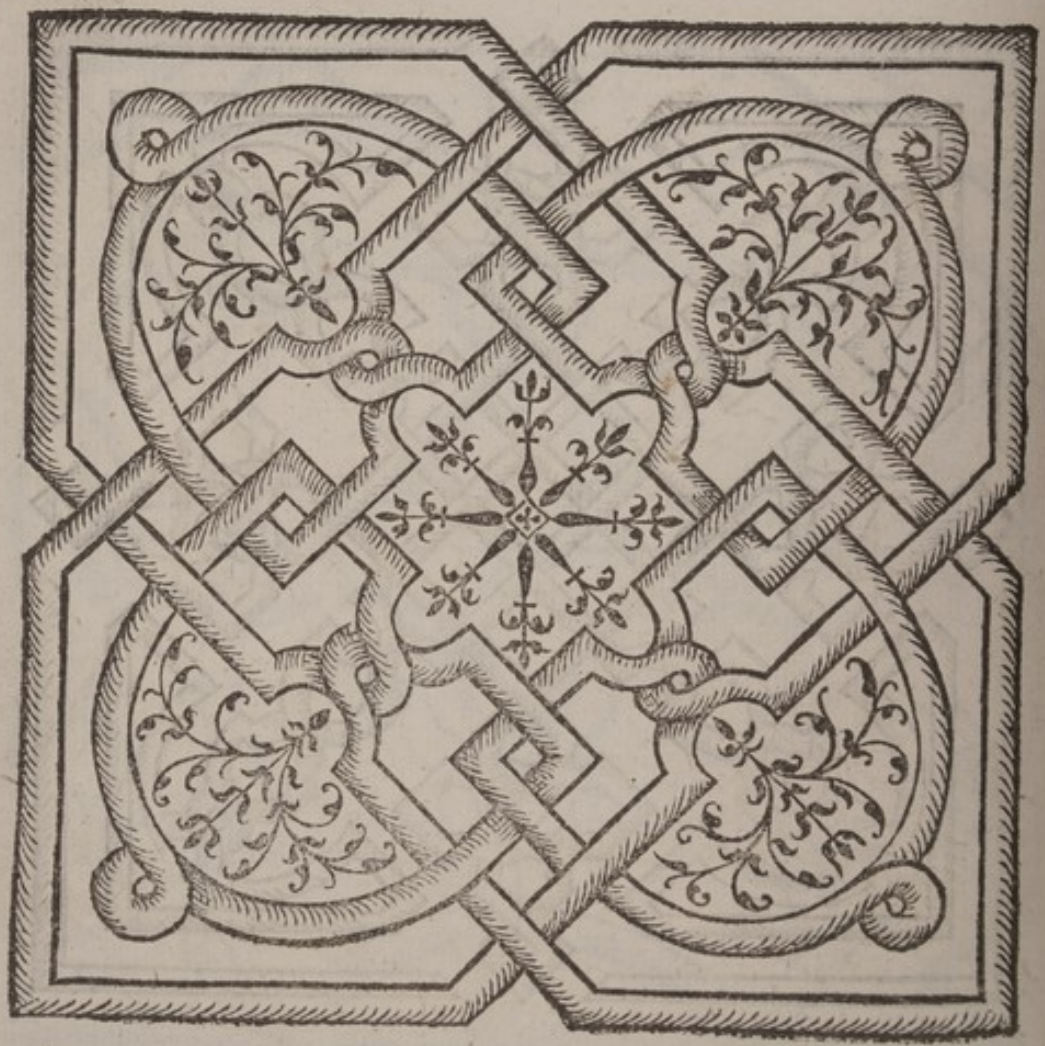
The vſe and manner of practiſing by the ſtretched lines.



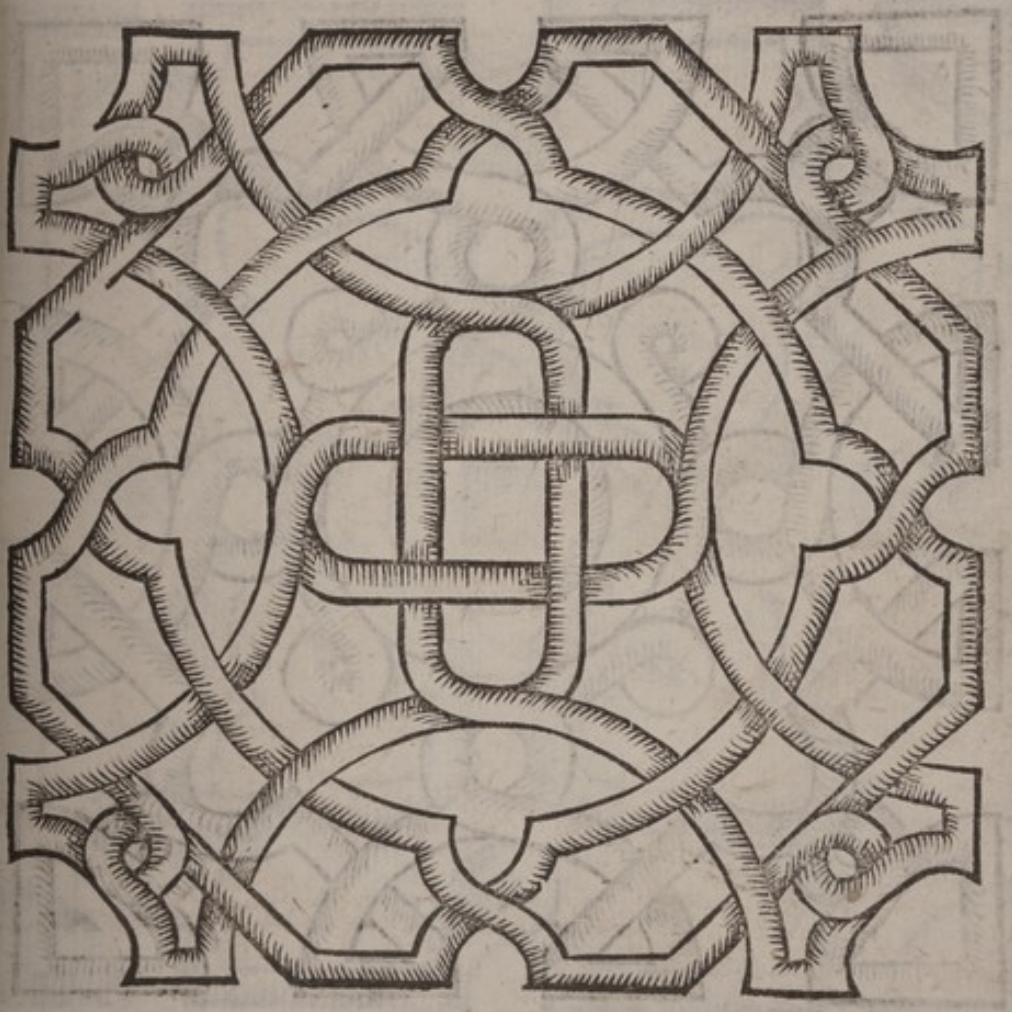
A simple proportion or draught of a knot.



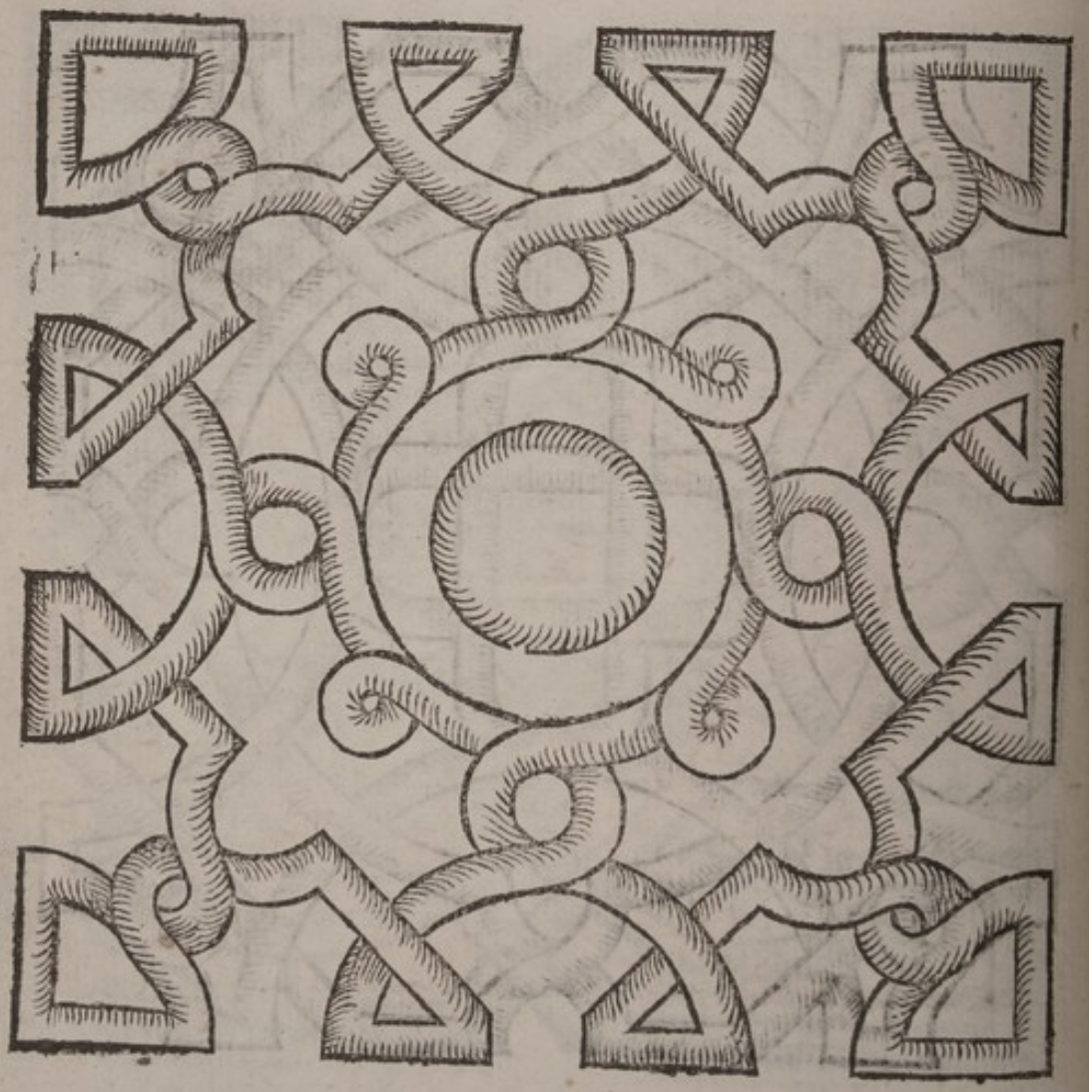
A simple proportion or draught
of a knot.



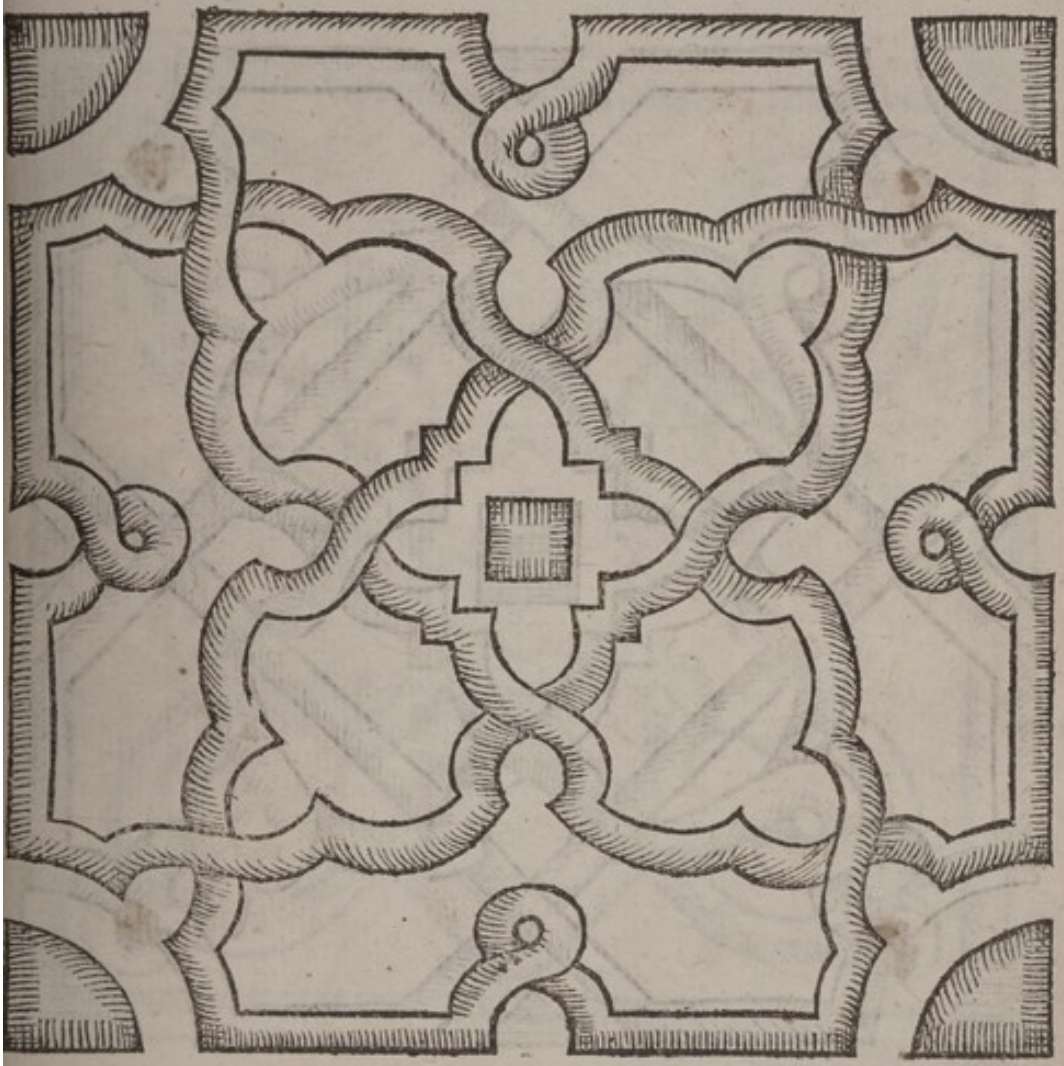
A ſimple proportion or draught of a knot.



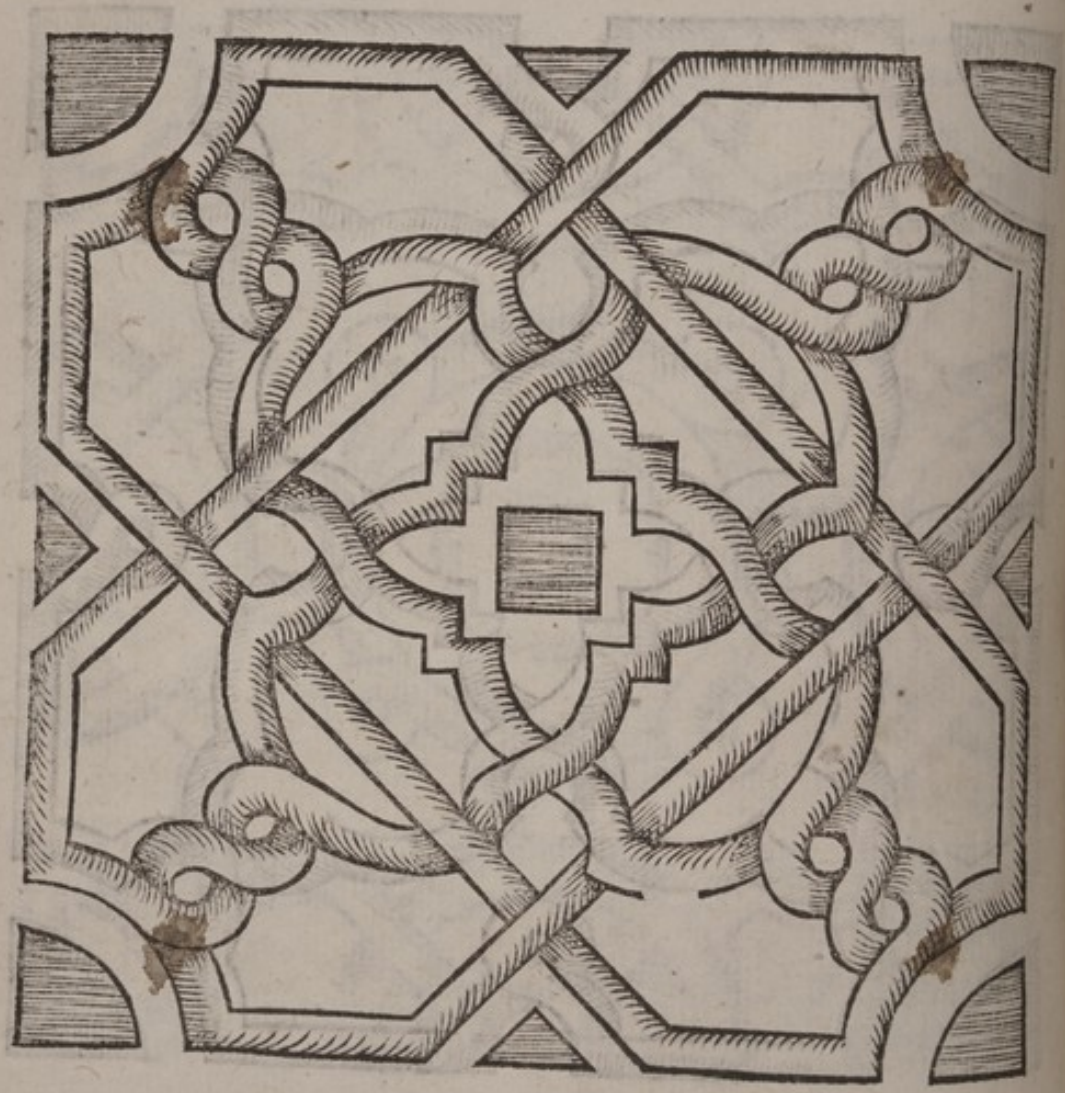
A simple proportion or draught of a knot.



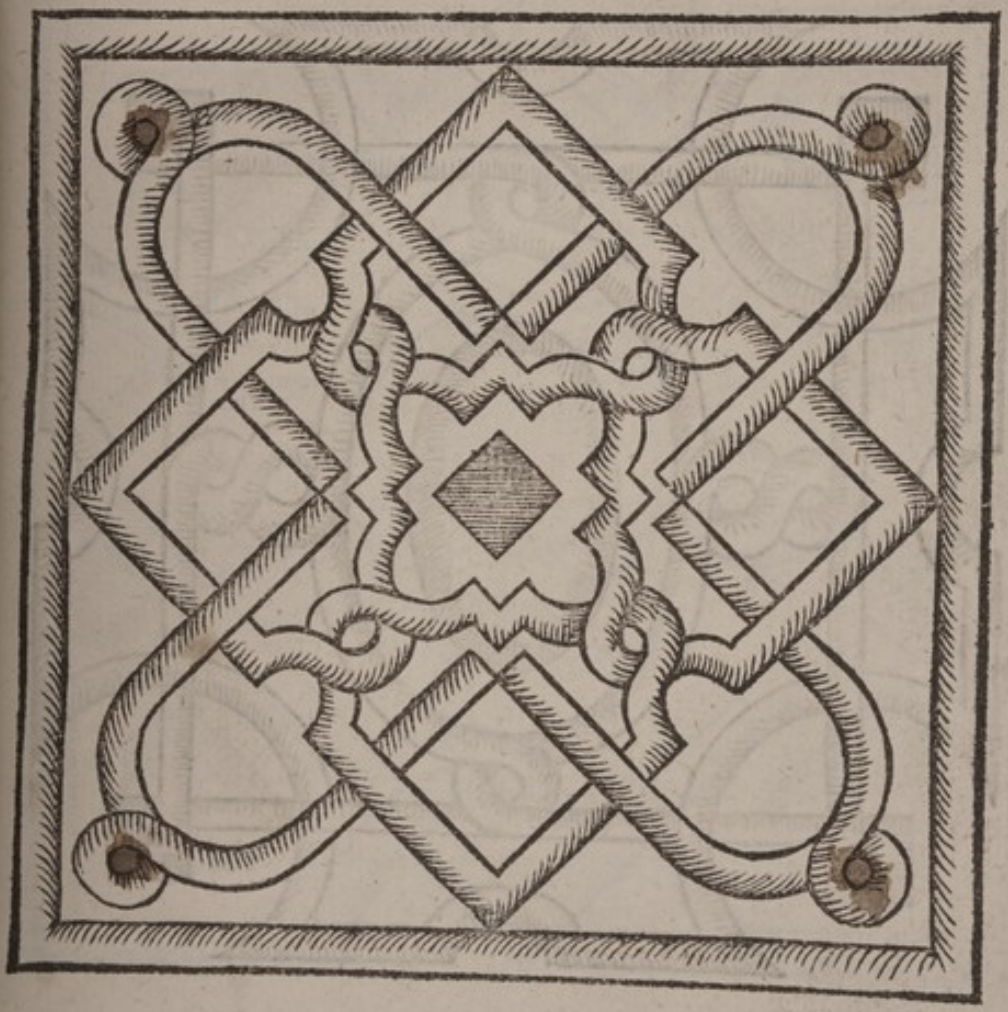
A ſimple proportion or draught of a knot.



A simple proportion or draught of a knot.

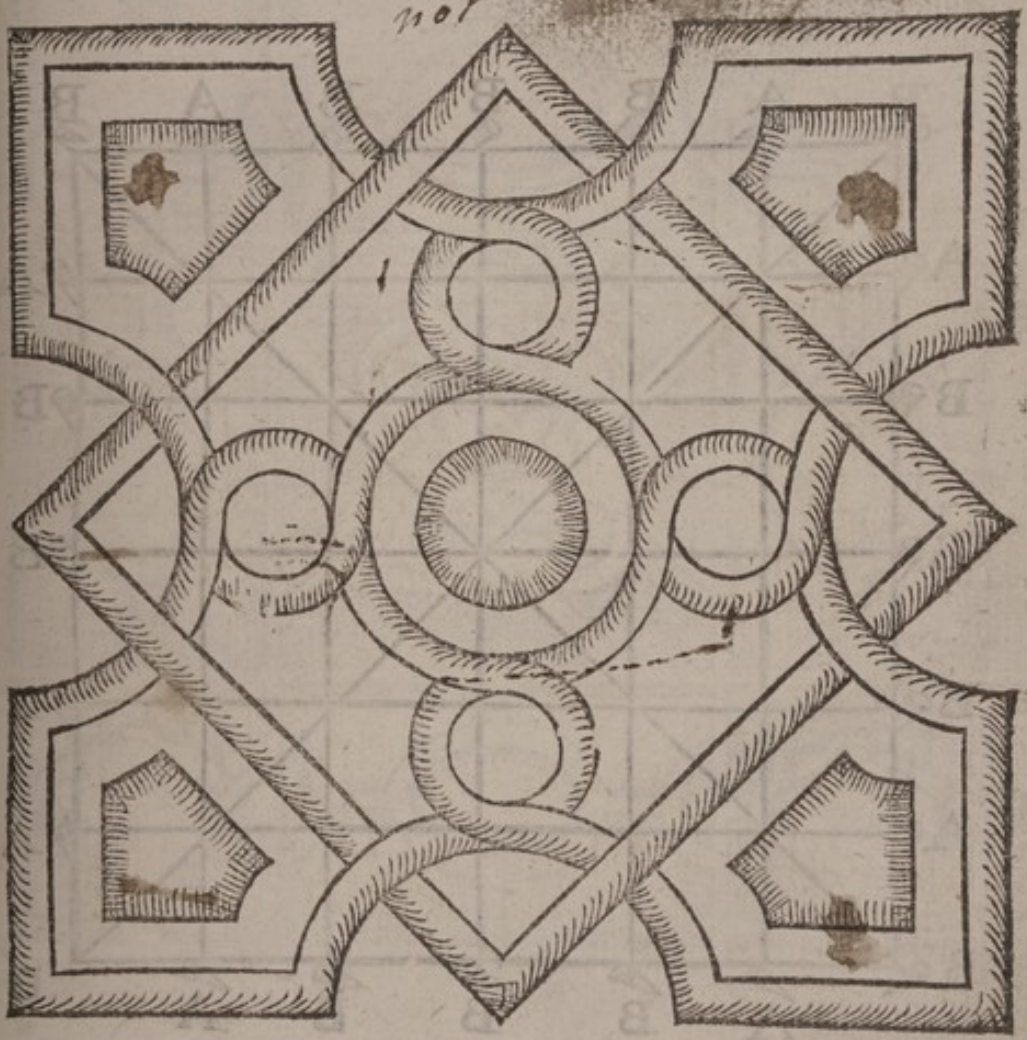


A simple proportion or draught of a knot.

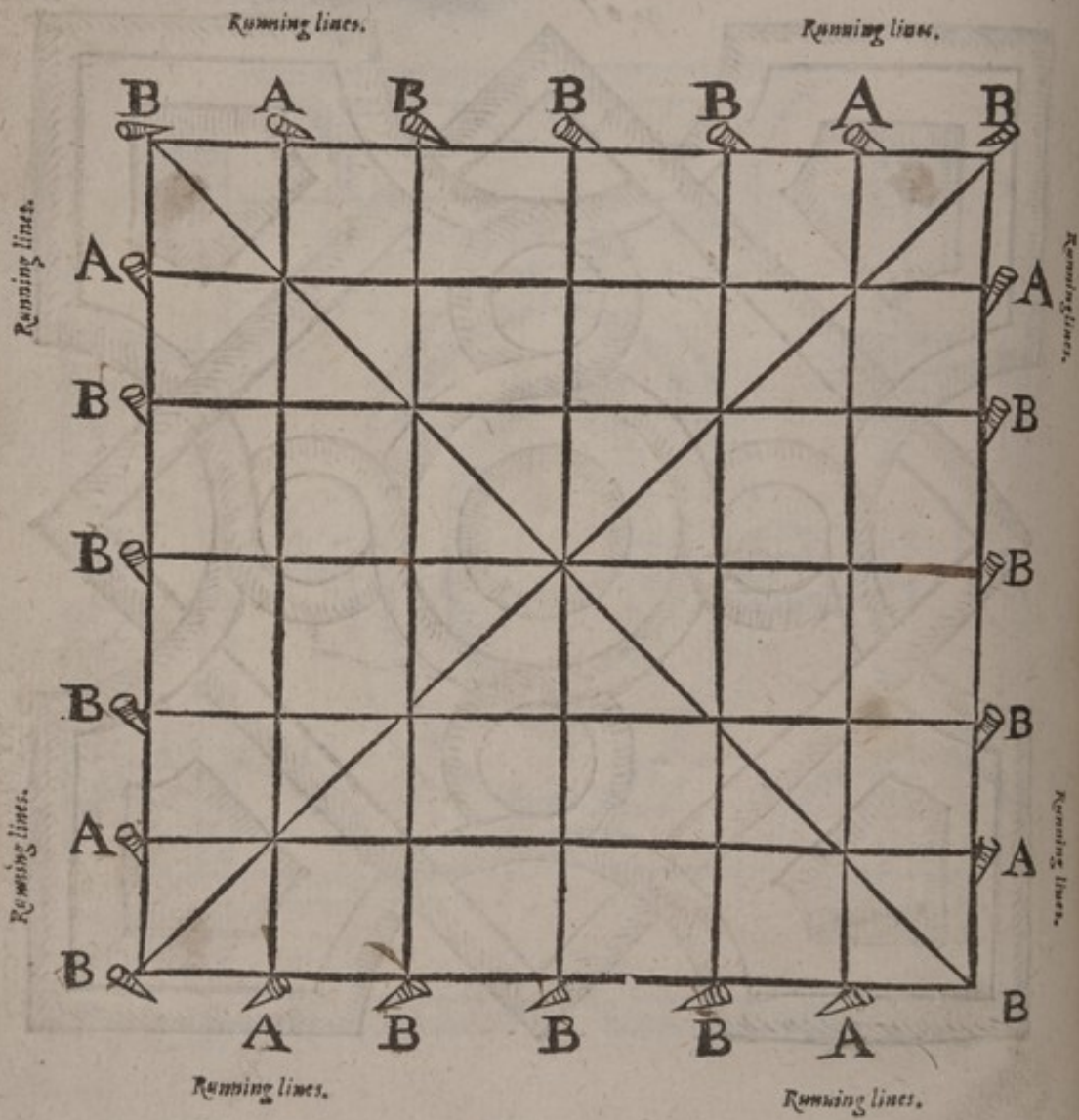


A ſimple proportion or draught of a knot.

A simple proportion or draught of a knot.

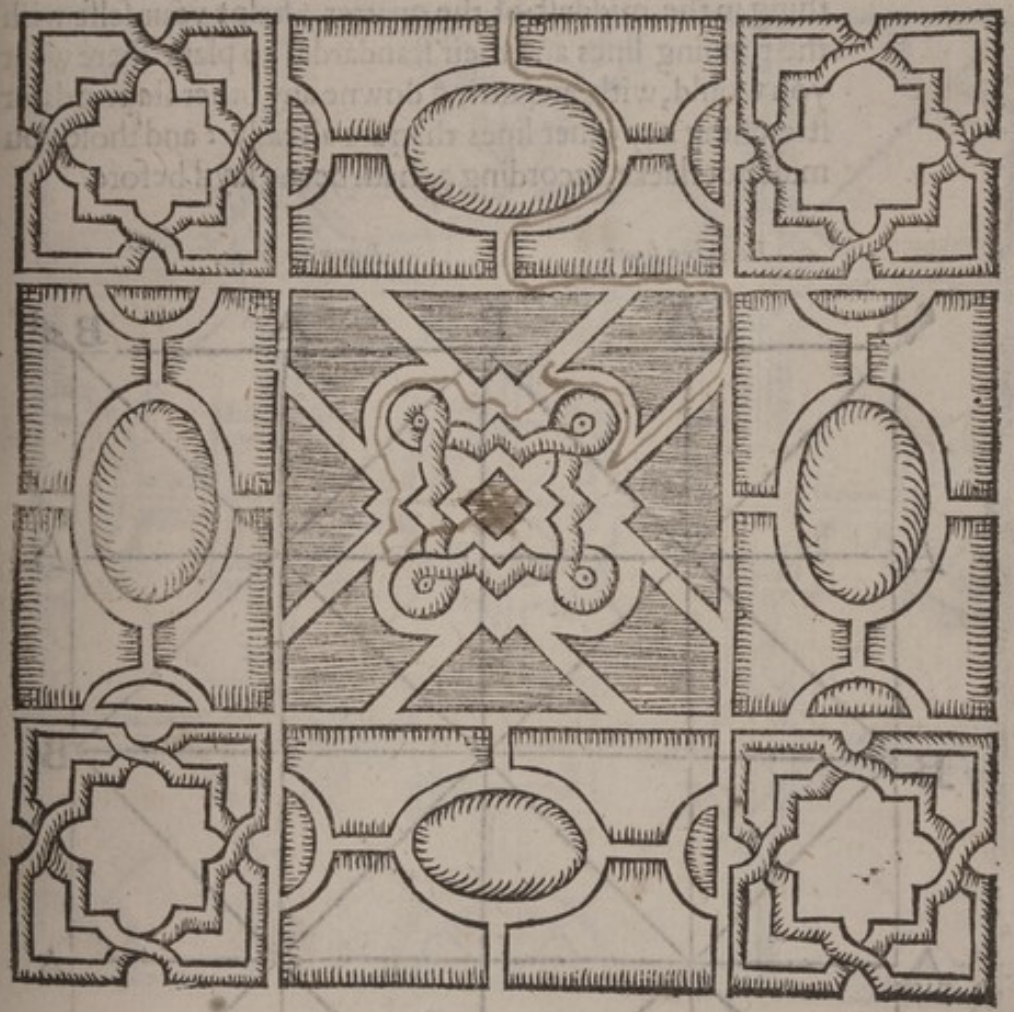


The way and maner to ſtretch the lines, to make a quarter with borders, and to make a border with ſquares broken and croſſed thorow the middeſt.

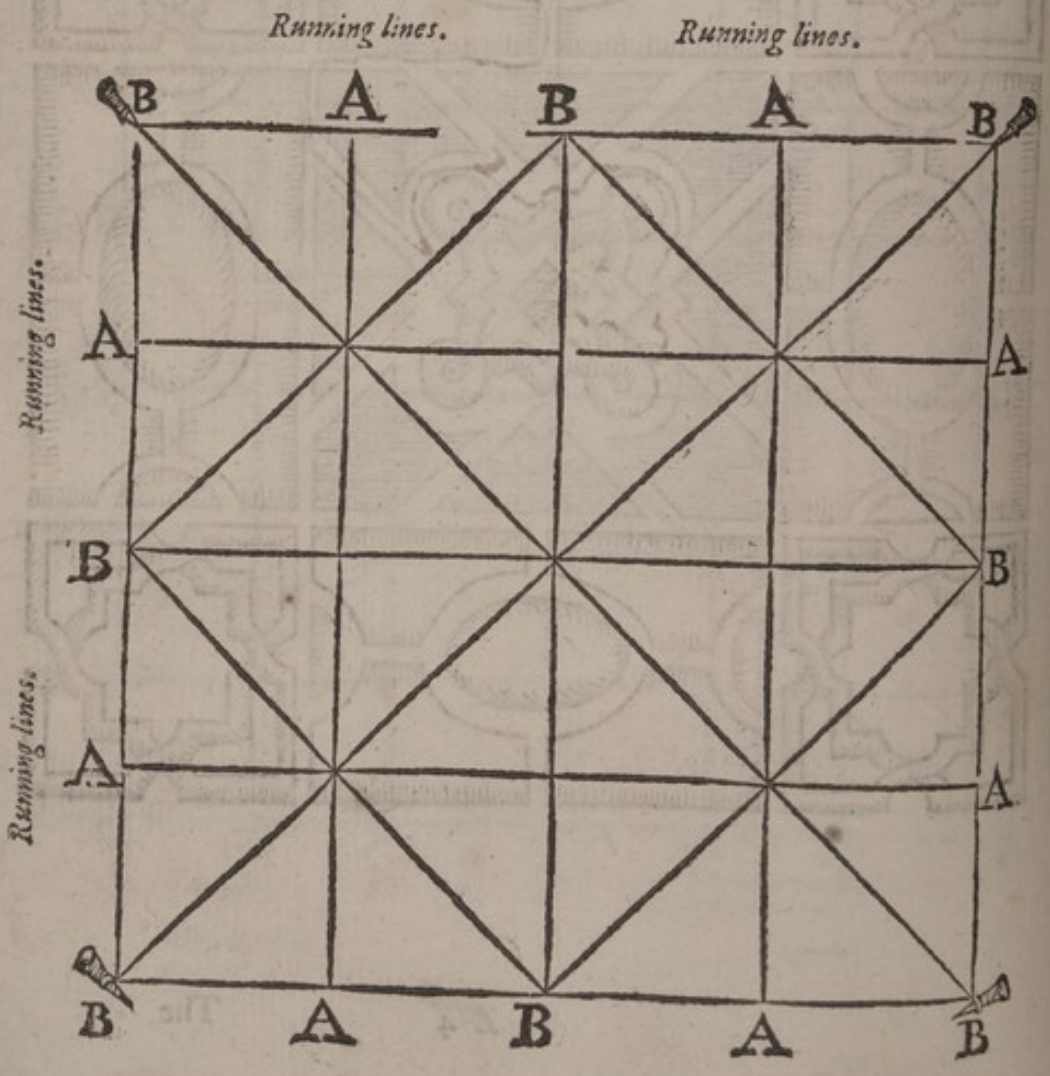


The

A border of broken squares, with a middle consisting of fiue proportions.

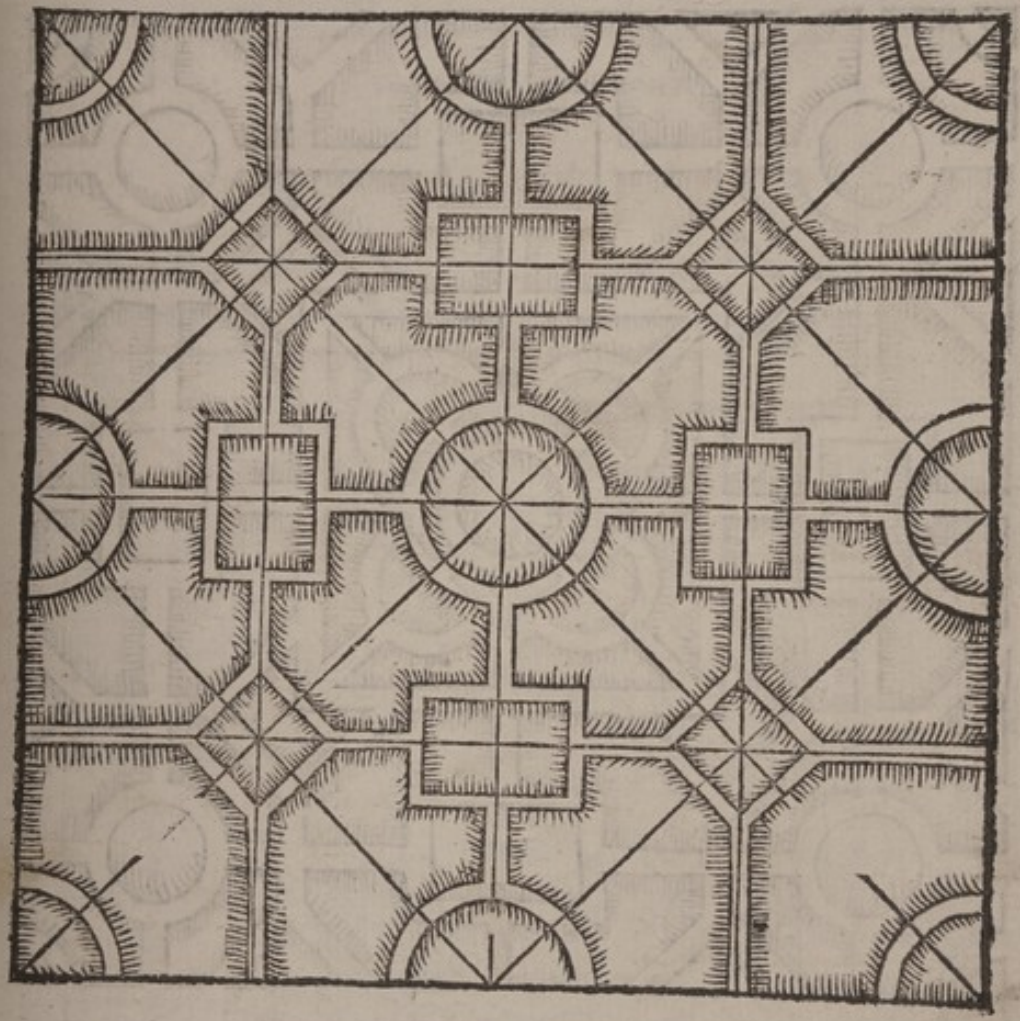


The maner to ſtretch the lines to make a quarter of broken ſquares. Let reſt and abide in their places the lines till you haue finiſhed the proportions. Take the meaſure of the ſtandards of the croſſe and corner line, whether it be a ſquare or a round, and let there be ſo many of them and as great as the ground will beare. And if perhaps you would plant any thing in the middeſt of the quarter, helpe your ſelfe with the running lines and their ſtandards, to plant there what you would, without putting downe any other ſtandards, or ſtretching any other lines than are already: and thoſe you muſt not ſlacke, according as hath beene ſayd before.

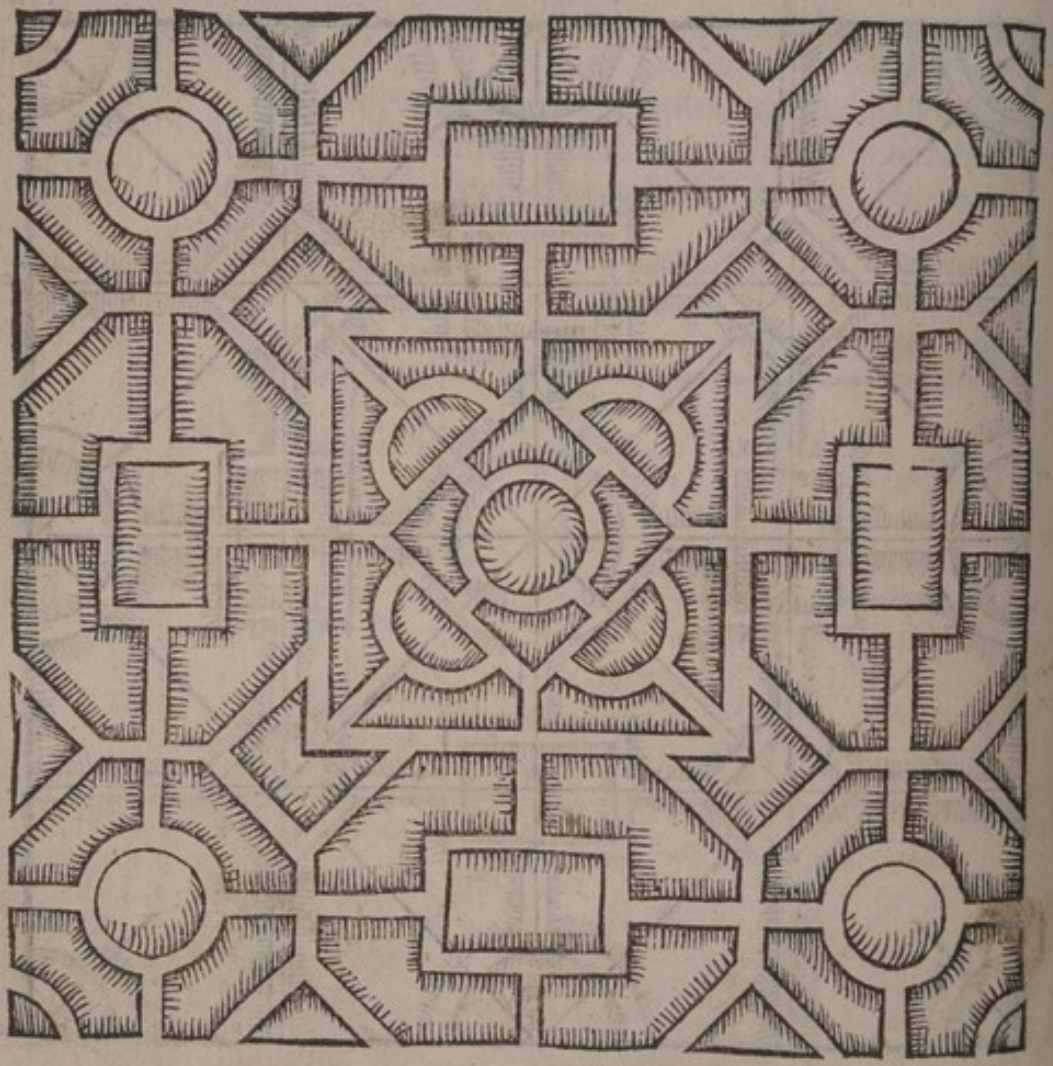


The

The maner of ſtretching the lines, vpon a quarter of broken ſquares.

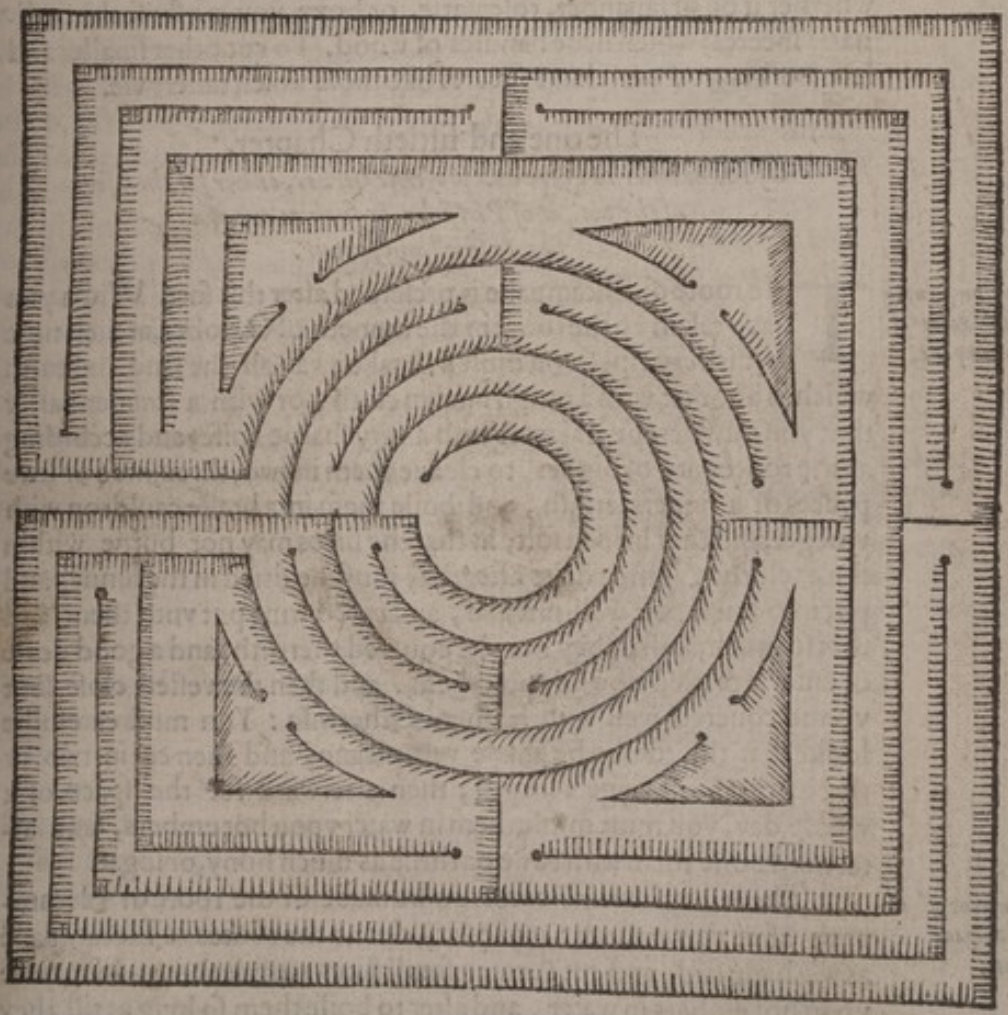


A border of broken ſquares with the middle.



The forme and ſhape of the Bilboquet, which is an inſtrument to take the meaſure of rounds, as we haue declared before.

The forme of a Labyrinth.



When

When the herbes as well of the borders, as of the quarter ar growne vp, if they become too thicke set of leaues, and by their large spreading doe ouershadow the one the other, couer the small alleies of the proportions, & therewithall spoile and hurt the comelines of the whole quarter, they must be cut. The season to cut them is at all such times as need shall require. It is true that there must especiall care be had not to cut them, the time of August being once past, by reason of the great losse that insueth in herbes, which thereby will fall to wither and pine away, and become as things burned with the sunne. To cut them which stand in a right and straight line, you shall stretch a line very stiffe, being of the length of the proportion, by the direction whereof you shall cut very neere first the two sides, and then the vpper face thereof. As concerning roundes, you must cut them for the sight of the countrie, as round as euer you can. To cut the border whether it be of lauander, rosemarie, or boxe, you must vse the ordinarie sheeres, which haue handles of wood. To cut other smaller and lesse herbes, you must haue sheeres like those which tailers vse.

The one and fiftieth Chapter.

Of the manner to keepe and preserue herbes, either for the vse of the pot, or of Physicke, or such as are of a sweete smell and sauour.

The preseruing of the roote of Elecampane.

THe roote of Elicampane is preserued after this sort. When you haue taken vp the roote in the moneth of October, at such time as it is very ripe, you must first take away all the sand and earth which is about it with a rough llinnen cloth, or with a strainer: after that you must scrape it al ouer with a very sharpe knife, and according as the rootes are of bignes, to cleaue them in two, three, moe or lesse peeces of a fingers length, and boile them in a brasse cauldron with vineger, and that in such sort, as that the slices may not burne within the cauldron. Three daies after they must be dried in the sunne, and put into a new pot well pitched, and cuted wine put vnto them, and that so much, as that they may be couered therwith, and a good deale of sauorie pressed downe vpon them, and then the vessell close shut vp and couered well with leather. Otherwise: You must carefullie looke that the rootes be made very cleane, and then cut in two or three peeces of a fingers length, then afterward for the space of a whole day, you must infuse them in water vpon hot embers, and afterward boile them with twise or thrise as much hony, or sugar.

Conserue of Elecampane roots.

There may likewise conserue be made of the roote of Elecampane after this manner: make very cleane the rootes of Elecampane as we haue said, and cut them in small slices: infuse them a long time vpon hot embers in water, and after to boile them so long as till they be tender sodden: then stampe them and straine them through a

linnen

linnen cloth or ſtrainer, and in the end boile them vp with thriſe as much honie or ſugar.

You may in like maner preſerue and conſerue many other roots, as gentian, piony, corne flagge, wilde vine, parſneps, Althæa or marſh mallowes, turneps, carets, radiſhes, nauets, caraway, Iringus, and ſuch other like, all which will be the more pleaſant, if you put vnto the conſerued or preſerued a little cinnamom. Laſtly, be it knowen that by this word confected, preſeruing or confection is to be vnderſtood, the remaining of the root or other thing (whatſoeuer it is, that is preſerued or confected) whole: and by the word conſerue or conſerued, is to be vnderſtood that maner of ordering things, whereby they are ſtamped and beaten very ſmall.

Preſerues and conſerues of gentian, piony, corne flag, wild-vine, parſneps, turneps and Althæa.

The difference betwixt preſeruing and conſeruing.

Purſlaine is preſerued in this manner: Gather purſlaine before it haue caſt the ſeed, take the tendereſt ſtalks thereof, and the fulleſt of leaues, from theſe you ſhall take the roots, and waſh them thorowly from the ſand and earth that might hang about them, afterward dry them a little, euen ſo long as till you perceiue them to beginne to wither, afterward put them vp handſomely in ſome barrell or little veſſell of earth, in maner of little beds, euery bed ſufficiently couered with ſalt. When the barrell or veſſell ſhall be full, powre therein-to a ſufficient quantitie of vineger, or elſe one part of veriuice and two of vineger. This being done, ſet the veſſell in ſome dry place, and not moiſt, for feare that the preſerue ſhould ſmell any thing of muſtineſſe, and looke to it well that the purſlaine be continually couered ouer with the pickle. And when you would vſe it, waſh it firſt with warme water or wine, afterward make it vp in ſalades with ſalade oile. After the ſame maner ſampier, the ſprouts of aſparagus, harts-horne, trickmadame, broome flowers, the flowers of capers, cucumbers, limons, orenges, plummes, peares, and ſuch like may be preſerued.

The preſeruing of purſlaine.

The preſerue of aſparagus, harts-horne, trickmadame, &c.

Lettuſe is preſerued after this ſort, they take the ſtalkes of lettuſe cleane picked, and the leaues pulled off, euen from the loweſt part of them. vnto where you perceiue the leaues to grow tender, and theſe ſtalkes you muſt ſalt in a little trough or tray, and ſo let them continue a day and a night, vntill that they haue turned the ſalt into brine: after this they muſt be waſhed in the ſame brine of ſalt, and after that they haue beene ſpraind, they are layed abroad vpon hurdles, vntill they be well dried: afterward there muſt bee put vpon them dried dill, fennell, a little rue, and leekes chopped ſmall: after all this the ſayd ſtalkes are put vp in a pot thus dried, and there is powred in vpon them a pickle which is made of two parts of vineger, and one of ſalt brine: after this, in ſtead of a double linnen cloth to couer it, there muſt be thruſt in good ſtore of drie fennell vpon them, in ſuch ſort as that the pickle may ſwell vp and ouer-couer them. And euermore

The preſeruing of lettuſes.

more in all confections it must be a speciall great care that they remaine not drie, and to that end to powre in pickle oftentimes, if by turning them aside you see they haue neede. After this fashion may succory, scariole, harts-horne, the tender shutes of brambles, the yoong and tender crops of thyme, sauorie, organie, radishes, be preserued: and such preserues must bee made in the beginning of sommer.

The herbes preserued with salt and vineger are chiefely ordained for salades: but these that are made with sugar and honie, do serue for the vse of physicke: such are those which follow heereafter.

What is ment by the woord preserue.

There is but verie seldome any preserues made of the flowres and leaues of herbes, I vnderstand by this preserue taken properly, the preserning of things whole and not stampt and beaten into one bodie: notwithstanding who so is disposed to preserne the flowers or leaues of herbes, may doe it in this fashion: take the leaues or flowers of such herbes as you will preserue, make them very cleane, afterward without any manner of stamping of them, put them all whole into some vessell wherein you will keepe them: cast vpon them a sufficient competencie of fine sugar made in powder, and so set them to sunning in the vessell.

The preserning of herbes and flowers.

Also in this sort, boile them at a small fire with sugar, so long as till the sugar become as thicke as a syrupe, and after put them in a vessell. Otherwise, after that you haue diligently clensed the leaues or the flowers of the herbes, put them in an earthen pot or glasse, and after powre into them of boiled sugar of the consistence of a sirupe and well clarified. Thus may roses, leaues of mynts, spleenewort, maidenhaire, sorrell, ceterach, buglosse, & such like be preserued: the flowers of marigolds, succorie, violets, broome, sage, and other such like: and such preserues are more acceptable then conserues: because the flowers and leaues doe in better sort retaine and keepe their naturall smell thus, then in conserues: for in conserues they are pounded with sugar, which doth rebate very much the naturall smell of the leaues or flowers.

Preserues are more delightsome and acceptable then conserues.

Now as concerning making of conserues of leaues or flowers of herbes, you must keepe this course: take the tendrest parts of the flowers or leaues, and cast away the hardest, such as are the white tailes of rose leaues, the stalkes of mintes, spleenwoort, maiden-haire and such like: make them very cleane, and bray them afterward in a marble mortar, or of other stone, with a pestill hard & solide inough, and that so long as till they become in manner of a paste: and then put vnto them twise or thrise as much sugar or honie. And if it fall out that the leaues or flowers so stamped be of themselues somewhat too moist, as the leaues of violets, water lillies, and buglosse be, then put thereto great quantitie of the powder of sugar. When you haue thus done,

done, put them into an earthen veſſell, and ſet them abroad a ſunning a whole moneth, that ſo their ſuperfluous moiſture may be ſpent by the heate of the ſunne, but they muſt be ſtirred euery day: Or if you had rather, do thus: ſet the veſſels vpon hot aſhes, to the end they may take a little boile, but this is not ſo good, as the ſetting of them in the ſunne. After this manner may the flowers of roſemarie, marigolds, betonie, pionie, margerome, balme, ſcabious, elder tree, mints, fumitorie, eiebright, ſuccorie, of the flowers of the peach tree, ſage, broome, orenges, mallowes, hollihocke, and other ſuch like, the tops of thyme, hyſſope, and wormwood, the conſerue whereof we haue ſaid before to be very ſoueraigne in the dropſie, as alſo the conſerue of peach tree flowers, and that of broome flowers, for the obſtructions of the reines and ſpleene. And foraſmuch as the conſerues of violets and roſes are in great vſe and requeſt, we will ſpeake particularlie of them.

Conſerue of roſes.

To make conſerue of roſes, you muſt take the leaues of roſes white or red, which are not as yet open and blowne, you muſt make them cleane, and ſtampe them without being dried before, in a ſtone mortar, and after put thereto thriſe their weight in ſugar, and then put it vp in a glaſſe veſſell well couered with parchment, and ſet in the ſunne the ſpace of three moneths, and ſtirring it al moſt euery day. If you would make conſerues of drie roſes, boile in halfe a pound of roſe water, one whole pound or thereabout of fine ſugar: afterward when you ſee that all the water is conſumed, caſt into the ſugar an ounce of drie roſes made into powder, boile them altogether reaſonablie, and after with a ſpatule of woode, you ſhall make your conſerue into morſels or cakes: otherwiſe, make three infuſions of roſes in roſe water, let the third ſettle, the bottome whereof you ſhall let alone, as being the earthie and groſſe part, taking that onely that is aboue, and in it you ſhall boile fine ſugar: and after that, you ſhall caſt thereinto halfe an ounce or thereabout of dried roſes in pouder, and do in like manner afterward, as hath beene alreadie ſaid.

Conſerue of drie roſes.

Conſerue of violets.

To make conſerues of violets, you muſt take the freſh and newe flowers of violets, and take from them their taile, and the little greene cup, by which they hang, and after drie them ſome ſmall time in the ſhadow of the ſunne, to take from them their ſuperfluous moiſture which they haue: after that braie them in a ſtone mortar, with twiſe ſo much ſugar, and put them in a glaſſe veſſell, which ſhall be ſet to ſunne, for the ſpace of three moneths, and ſtirred very oft during the ſaid time, as hath beene alreadie ſaid of the conſerue of roſes.

Conſerue of dry violets.

If you would make conſerue of drie violets, make one or two infuſions of violets, and in them boile fine ſugar, afterward caſting halfe an ounce of powdred violets to one pound of ſugar, then boiling them a little together, you ſhall with a ſpatule make your conſerue into

morſels

morsels or cakes.

The making of mustard. For to make mustard, you must picke and cleanse your seed very well, searce it, wash it in colde water, and after leaue it a whole night in the water, then take it out, and when you haue wrung it or pressed it (as neere as you can) dry with your hand, then put it in a new or verie cleane mortar, and bray it with a pestle with strong vineger, and then after that straine it. Some make a very pleasant mustard in this maner. Take two ounces of the seed of Senuie, halfe an ounce of cinamome, poune them very small, and with hony and vineger make a paste, and of the paste little loaues, which you shall dry in the sunne or ouen: and when you would vse it, dissolue one or some of one of your loaues in veriuice or vineger, or some other liquor.

Some to take away the great sharpnesse that is in it, doe steepe the seed in new wine, during vintage time, and then make it as we haue sayd already, after they put it in little barrels, such as mustard of Aniou is woont to be put in. The people of Dijon make it in small loaues, and when they will vse it they dissolue it in vineger. The mustard of Dijon hath woon the praise from all other, either because of the seed growing there, which is better than that of other countries, or by reason of the making thereof, which the inhabitants there doe performe more carefully than in other places.

Mustard of Aniou.

Mustard of Dijon.

Preseruing of cucumbers. To preserue cucumbers, you must put them in lees of white wine, which are not sowre, and in a pitched vessell, and stop it well. Otherwise, you must put them in salt brine, or els hang them in some vessell wherein is a little vineger, but so also the vessell must be verie well stopt.

Some preserue them in an earthen vessell, with salt, vineger, and margerome: others cast them into sandy pits, and couer them with the seed of senuie bruised with vineger, and after that put vpon them drie hay and earth.

The preserving of gourds. To preserue gourdes, take them when they are tender, and cut them, then powre vpon them warme water, and let them coole in the open aire for a nights space: after that souce them in strong salt brine, and so you shall preserue them a long time: or els dry them in the sun, and after hang them vp in some smoaky place. In France they are preserued all winter being hanged vp vnder some chamber floore, or set in rowes vpon planks, especially the citruls.

How to keepe onions. To keepe onions, you must dry them in the sunne, and afterward put them in some dry place and well aired. Some preserue them after this maner: first they dry them in the sunne, and lay Thyme and sauorie below in the bottome of a pot, and lay the onions aboue, putting thereunto pickle, which shalbe made of three parts of vineger, and one of salt brine, and aboue this againe a bunch or small bundle of sauorie, to the end that by the weight of it the onions may be sunke

downe

downe into the pickle : and when they are ſo drencht, as that they haue receiued of the pickle into their owne iuice, then they fill vp the pot with the ſame pickle. Some doe ſteepe them onely in water, and afterward preſerue them the whole yeere in vineger.

The two and fiftith Chapter.

A briefe diſcourſe of ſmall and great trees, as well ſtrange as growing in the country, planted or remoued in the garden: and firſt of ſuch as arbours are made of.

THE Garden of pleaſure hauing beene deuiſed and ordained for the only recreation of the chiefe Lord of the farme (as hath already beene ſaid) and ſeeing that this his recreation cannot be altogether ſo great and ſo ſufficient in the onely ſmell of flowres and ſweete herbes, as and if there be withall preſented vnto the ſight the view of ſtrange and country-borne-trees both great and ſmall, which doe not only yeeld a more pleaſant ſmell without compariſon, then the herbes; but doe alſo (the greateſt part of them) bring foorth fruits of great wonder and admiration, as pomegranate-trees, caper-trees, citron-trees, orange-trees, limon-trees, citron-trees of Aſſyria, date-trees, fig-trees, oliue-trees, baſtard-ſene-trees, and others ſuch like. Therefore, to the ende we may leaue nothing out of our garden, whereof the Maſter of the houſe may reape any ſolace, we will ſpeake briefly of handling and husbanding of great and ſmall trees which muſt be planted in it: of which, ſome are imployed as neceſſary about arbours, and the garden is to be ſet about with them: they are the cypres-tree, iuniper tree, ſauin-tree, cedar-tree, roſe-tree, box-tree, and others: otherſome are ſowen or ſet, and remooued vnto beds onely proper vnto them, or into veſſels and caſes, as the bay-tree, mulberrie-tree, date-tree, pine tree, citron-tree, orange-tree, limon-tree, fig-tree, oliue-tree, and ſuch like, which ſhall be ſpoken of heere-after.

The cypres-tree, as well the male as the female, notwithſtanding that in the ile of *Creete*, it doth grow in great tufts and forreſts without any ſowing or planting of his owne accord: notwithſtanding in this country it cannot be got to thriue, without the great paines of the gardner, and notable goodnes of the ground: for naturally it delighteth not but in hot countries, where it groweth as one would wiſh it: it groweth either ſet or ſowen in a drie ground far from flouds, riuers, marriſhes, dirty and moiſt places, and on the tops and ſides of hils where the ſunne ſhineth, better than in valleies: it abhorreth all manured ground eſpecially and moſt of all, be it neuer ſo little; yea if one doe but fill a trench with dung round about where it is planted, it *The cypres-tree*

will die in a short time : notwithstanding it is requisite some certaine time before you plant it, to put some good mould into the pit where you intend to plant it or to sow it. This is as it were a woonder of nature in the seede of this tree, which, though it be so small as that one can scarse see it, yet it bringeth foorth so goodly and so tall a tree. When you sow it, you must sow it in furrowes, from after the twentith of October vntill winter, and neere vnto it some barley : for there is such great familiarity betwixt these two seedes, that they growe as it were in spite one of another ; whereupon it will come to passe, that when it is a great barley yeere, it will be also a great cypres yeere. If you remoue it, doe the like : but be carefull in the meane time not to water it nor to prune it, or to snip off the tops of it, for it cannot endure any wound, be it neuer so little. This tree hath a male and a female: the male groweth more high, hath his branches and boughes more close and straight together, and bringeth forth fruit or nuts, but so doth not the female.

The cypres-tree beareth fruite and flourisheth three seuerall times a yeere, as in Ianuary, May, and September : and therefore at these times you must gather the nuts, which you shall drie in the sunne to make them easie to breake, and take out the seede, which you must likewise drie in the sunne, and, if you be desirous to sowe it (the fit time for which is Aprill in very hot countries, and May in temperate ones: and in this country from the twentith of October vntill winter) you must chuse a drie, faire, and calme day; and being sown, you shall riddle ouer it with a small riddle, open aboue, some earth in an euen and equall sort about the thicknesse of two or three fingers, and after that so soone as the cypres is put forth of the ground, you must be watchfull ouer the ants, and also besprinkle it with water euerie third day before the sunne rise, or else after the sunne-set, which is much the better : but after that it is growne aboue the earth, you must not water it but very seldome, for often watering of it would make it die : but insteed of this, it must be carefully weeded, pruned and digd, but without touching of the roote : neither must you goe vpon it, for treading vpon it with your feete killeth it : and whereas for the first and second yeere it is very tender, you must couer the head of it for that time to keepe it from the burning heat of the sunne by day, and the pinching cold of the frosty nights, euen so as we haue said of melons : the laying of the earth light about it spoken of before, is to be vnderstood of the time of his yoong yeeres, and whiles it is growing: for after it hath once perfected his sciences and bows, it hath no more need either of that or any other labour and helpe. It is woont to be remooued being betwixt fiue and sixe yeeres old, and that in March or in Aprill, and because it scattereth and spreadeth abroad his roots, and pearceth not farre downeward with them, the pit whereinto it is

to

to be remooued must be made wide, and that somewhat more then it selfe is broad in the rootes, and in a moist countrie it must be but a little depth, whereas in a drie countrie it may be two foote deepe. The gardiner must be carefull to keepe it from ants, because this little worme loueth cypres aboue all other things, and causeth it oftentimes to die.

The wood of cypres is better then any other to make coffers, chests, cabinets, and presses of, because besides the good smell which it yeeldeth, it indureth an infinite long time without corrupting, moulding or rotting any thing at all, and it is such an enemie to all wormes and vermin, as that the leaues and nuts thereof being laide amongst cloathes, doe free them of wormes. The leaues and seede are verie much commended for the killing of wormes in children. The decoction of the nuts in vineger doe asswage the toothach, if the mouth be often washed therewith: the decoction of the leaues worketh the like effect: the ashes of cypres nuts, and the horne of an asses hoofe mixt with oyle of myrtles, keepe the haire from falling. The decoction of new and fresh gathered cypres nuts made in old wine doth exceeding good to them which haue the falling downe of the fundament, if they drinke thereof euerie day the quantitie of three ounces, but in the meane time they must rub their testicles with the leaues of cypres brayed and beaten: and this is a certaine remedie, such as hath oft beene experimented and tried: the like vertue hath the yoong sciences of the cypres tree, if they be so chawed, as that thereupon their iuice may descend into the bodie. *The vertues.*

The rose-tree fitteth it selfe for all manner of aire, whether hot or cold, but in countries that are hot & somewhat moist it groweth more faire, greater, and flourishing a longer time, as may be seene in manie coast townes and places neere the sea in *Spaine*, where roses continue and flourish vnto mid-winter. It requireth a fat, substantiall, and reasonable moist ground; for as for grauelly and sandie grounds they are altogether enemies vnto the rose tree. It must be planted in October, Nouember, and December in hot and drie countries, and in Ianuarie and Februarie in colde and moist countries; yea and also in March, and such as are planted in the latter season, will put foorth roses the same yeere, which will not fall out in those which were made haste of and planted a great deale sooner: if the earth be good of it selfe the rose will craue no manure, but yeeld a more perfect smell, but and if it be spent and worne out, it must be succoured with dung well rotted. *The rose-tree planted and remoued.*

As for roses there be manie sorts of them, that is to say, the wilde ones, which we call Eglantine, and the red also growing in hedges: dammaske of the colour of scarlet, which we call Prouence roses: and amongst the branches, besides the wilde ones there are, muske-

The rose-tree owne.

roses, common-roses, and roses hauing fiue leaues onely. The rose-tree groweth either of plants or seed. It is planted of shutes, or little roddes diuided into pieces of the length of fower fingers, and set into a well manured earth a foote deepe. It is good to remoone it, for it will grow the fairer, as also euerie yeere, or at the least when it is past fiue yeeres olde (which is the terme of his approching age) to cut it, or else to burne the branches of it that are superfluous: for this restoreth it vnto his yoong yeeres againe: if you remoone it, remoone it by branches, setting the one fowerfoote distant from the other, in a ground that is not fat or clayie, nor moist, but drie and stonie. The rose-tree sowen groweth slowly: but yet and if you sow it, let it be fowerfoote within ground, and deceiue not your selfe with the seede, for the seed is not that little yellow flower which is in the midst of the rose, but that which is contained and nourished in the little fruite which the rose bringeth foorth after vintage, which is knowne to be ripe when it groweth blacke and soft.

Seedes of roses.

For to haue muske roses, you must graft the rose tree vpon it self, or vpon the eglantine, and before the grafting of it to put into the cleft, where the graft is to stand a graine of muske, or else one or two dry leaues of sweete smelling roses: such roses are pleasant to behold, as being but a little tree, and yet laden with leaues, the flower verie sweete of smell, and such as will neuer faile, but alwaies holde and bring forth in their season: besides that a man may fit the roote and branches thereof, to make a shadow: such roses are not good to make conserues, or distilled water, nor for any vse in Physicke, onely they are good to dry and put amongst linnen and other apparell, because of their good smell: it is true that some say that they loosen the belly. Looke further in the thirde booke in the chapter of the speciall properties of grafting and planting.

Verie sweet smelling roses. Earelie, hastie and timelie roses.

To haue roses that shall smell very sweete, you must plant your rose tree in a place that is very drie, or else to set it round about with garlicke. The roses will come earely if you make a little trench of some two hands wide round about the rose tree, and therein powre warme water morning and euening, and yet this must not be attempted before it begin to put foorth his buds: you shall do the like if you plant your rose tree in baskets, or pots of earth, and order them after the manner of timely gourdes and cucumbers, as hath beene taught before.

Fresh roses.

You may keepe new roses in their liuelines if you put them in the lees of oile, so as that the lees may swim aboue them; others pull vp greene barly, rootes & all; wherin they wrap roses as yet not blowne, and so put them together in a pot that is not pitched. The way to haue greene roses is, if you graft the rose tree vpon an old colewoort stalke, or vpon the body of an oake, but then the roses will haue no smel.

You

You may make the carnation roſe white, if you perfume it with brimſtone at ſuch time as it beginneth to ſpread. *To make carnation roſes white.*

You may haue roſes of a yellow colour, if after you haue planted the roſe tree with his naturall earth neere vnto the broome, you bore through the broome ſtalke with a wimble, and plant in the ſame hole diuers rootes or ſhoots of the roſe tree, ſcraped round about ſo farre as they are to lie in the hole, and after tie and make them faſt vnto the broome plant with mortar: and when as you ſee the hole bored in the ſtalke to be growne vp againe, you ſhall cut off the broome ſtalke aboue the place where you bored the hole, and ſhall let the roſe tree to put foorth his ſhootes, and ſo by this meanes you ſhall haue yellow roſes.

The vertues of the roſes are ſufficiently knowne vnto euerie one. Some diſtill the white and Prouence roſe, which, if you will haue it to retaine the full qualitie and vertue of the roſe, togither with the ſmell and ſauour of the ſame, you muſt diſtill in a glaſſe veſſell, and not in lead, as is ordinarily accuſtomed. Some make infuſions and ſirups of carnation roſes, which haue force to looſen the belly, and to purge the humours offending in ſerous and cholericke matter, as alſo good for tertian agues, the iaundiſe, the obſtructions of the liuer, and beating of the hart.

The yellow growing within the roſe, which is a flower accompanied as it were with ſmall haires, doth ſtaie the white flowers of women: the white end of the leaues of roſes, are good in a decoction to ſtay all manner of fluxes: the cup hath the ſame force and vertues: the ſeede and wooll contained within the button of the roſe, as alſo the whole button, dried and made into powder, is ſingular good to ſtay womens whites and termes, for the ſcalding of the water, for the diſeaſe called Gonorrhæa, taken the weight of a dram with ſowre red wine.

Boxe-tree is planted of ſhootes or boughes, after the twelfth day of Nouember. It delighteth in hilly places and mountaines, and groweth very well in cold, drie, and windie places. It muſt not be planted neere the place where bees are kept, for the flower killeth them ſodainly. Some affirme that it corrupteth the aire by the ſtinking ſmell it hath, and for this cauſe it would be as ſparingly planted in the garden as poſſibly may be. *Boxe tree.* *Bees-bane.* *A corrupt aire.*

Boxe-tree is better to make combes and other durable inſtruments of, then for to vſe in medicine, if it were not that Phyſitions do holde that the ſcrapings or raſped powder of boxe and the leaues thereof boiled in lee, doe cauſe the haire to looke red. Some likewiſe doe thinke that it hath the like properties that Guaiacum hath in decoctions for the French diſeaſe, but heerein I referre my ſelfe rather to experience then to reaſon.

Broome. Broome, as well the ſmall as the great is planted of ſhootes and boughes, in the increaſe of the moone, about the Calends of March. *To make water.* It may likewiſe be ſowen, and it requireth a dry and ſandie grounde. *The ſtone.* The flowers as alſo the ſeed do prouoke vrine, and breake the ſtone, *To vomite.* as well of the reines, as of the bladder: the flowers prouoke vomite, taken in a drinke: the leaues and crops boild in wine or water, are good for the dropſie and obſtructions of the liuer, ſpleene, and kidneies: ſome vſe the ſtalks of broome to tie their vines, as alſo to make ropes and ſackes of, and that by ripening it in water as they doe hempe.

Spaniſh brome. Spaniſh broome groweth alſo in drie places: it muſt be remooued after the firſt yeere that it is ſowen: it is ſowen in Februarie, and remooued in March the next yeere after: the flowers in decoctions procure vomite after the manner of white hellebor: the ſeede alone doth looſen the belly, and forceth downward great ſtore of water.

Furze. Furze grow in vntilled and ſandie grounds: the leaues boild in water or wine do ſtay all manner of fluxes.

The cedar tree. The Cedar tree is very rare in theſe countries: ſo that if you will haue it in your garden, you muſt aſſigne it a well husbanded grounde, and lying open vpon the ſunne, notwithſtanding the places where it is found moſt growing, be colde and moiſt mountaines and full of ſnow: if you do well you muſt ſowe in pots of earth, and caſes or impaled places the ſmall and exceeding little ſeed that commeth therof.

The liquor thereof put into the hollow parts of the teeth, doth ſtay their ach: being annointed it killeth the wormes, and preſerueth bodies from rotting. The wood is very pleaſant to looke vpon and to ſmell vnto, whereupon ſome vſe it in ſteed of perfumes.

Sauin. Sauin is planted as boxe, and groweth much better if it be watered with wine lees, or ſprinkled with the duſt of tile ſtones. The leaues as well in decoction as in perfumes, prouoke the termes, and expell the afterbirth and dead childe: they alſo cauſe to fall off the warts growing vpon a mans yard.

Iuniper. As concerning Iuniper it affecteth the tops of mountaines, and ſtonie ground for to grow well in, and by how much it is the more toſt of the windes, and pinched with colde, ſo much the fairer it groweth. The fruite thereof is good for the ſtomacke, for weake and broken people, and againſt all ſorts of venome, whether it be drunke or taken in a perfume, as alſo againſt an euill aire: It is with good ſucceſſe vſed in the decoctions preſcribed againſt the pockes: take ſeauen Iuniper berries, & as many bay berries, halfe a dram of zylocaſſia, and a dram of cinamome, put all this whole in the belly of a turtle done, roaſt the ſaide turtle thus ſtuffed, and baſte her with capons greaſe, giue euery ſecond day one of theſe at ſupper, to a woman that is readie to be deliuered, and ſhe ſhall haue an eaſie deliuery: boile

twelue pound of Iuniper wood cut small, or raspt in a great cauldron, and in a sufficient quantitie of water to the consumption of the thirde part of the water, put this wood and water into a bathing tubbe, and let the partie troubled with the gout, sit in this bath vp vnto the middle; he shall feele incredible releefe heereby.

Elder tree is fitter to plant in the garden hedge, then to make arbors in quarters: notwithstanding where other sorts of small trees are wanting, there may vse be made of the elder tree. It would be set in the moneth of November vpon sciences and shootes, in a moist and shadowed place, neere to some little riuer or brooke. To cause it to grow well you must take this diligent course: to cast the earth as it were into furrowes of a good halfe foote broad, and a whole foote deepe with a spade, and not with a pickaxe, for there must no earth be taken away: then presently after the feast of saint *Martin* in winter, plant your elder trees, the great end thereof which shall be put into the earth, shall be cut bias like the foote of a hinde, and thrust downe into the ground thus prepared; a foote or nine inches deepe: and let it stande vp aboue the ground, at the least a foote and a halfe, or two foote, so as that in all, your plant must be two good foote and a halfe, or three foote long: before you put them into the ground, open it with a dibble, either of iron or wood, so that the rinde of the plant may not be torne, in putting of it into the earth. If you plant it in furrowes, there must be at the least three foote betwixt euery furrowe, and a foote betwixt euery plant. Hauing once thus planted them, you shall neuer neede to take any further paines with them, if you will not your selfe, but to cut it two ioints at the least euery yeere for the space of the two or three first yeeres, to the end the root may grow the greater: and the first two or three yeeres being past, you may cut it from two yeeres to two yeeres to make props for vines: in any case you must lop it euery yeere, and cut away all the euill sciences and shootes which it ill fauouredly putteth foorth. *Elder tree.*

Some distill the water of the flowers, as singular to appease the headach comming of heate, if the browes or hinder part of the head be rubd therewith. Some likewise doe make verie good vineger with the flowers and iuice of the berries. The iuice presled from the rinde of the roote, mooueth vomit, and draweth foorth the water that is in those that haue the dropsie: the iuice presled from the leaues and taken with some pottage doth loosen the belly: the dried seed is good against the dropsie, and for fat folke to make them leane, taking of it the quantitie of a dram in white wine, and continuing it a certaine time, and mixing therewith a little cinnamom, because it is a procurer of vomit, and a disquieter of the stomacke. *Headach.*

Rosemarie and Iesamin are likewise fit for the adorning of arbours in quarters, of the ordering whereof we will say nothing in this *Rosmarie and Iesamin.*

place, because we haue before spoken thereof verie largely.

Iuie. Iuie as well the great as the small, doth delight to be planted in moist and watrie places, from the moneth of Nouember vntill March, and it flowreth not but in autumne, neither doth the berrie thereof become ripe but in winter: it groweth not high, if it be not neere vnto some tree or olde ruine, vnto both which in the ende it worketh ruine and ouerthrow. It will bring foorth a goodly fruit, if you straw it with powdred allom, or ashes made of burnt oister shels. Blacke Iuie will become white, if you water the roote thereof with white earth tempered with water eight daies togither continually.

If you take three Iuie berries and tying them vp in a cleane linnen cloth with a thread, giue them to some one that is troubled with paine and stifnes of his spleene to weare about his necke, the said partie so wearing them three daies togither will be whole and cured of his disease. The leaues braied and applied, do heale burnings and scaldings made with hot water: boiled in vineger and applied, they cure the hardnes of the spleene: the gumme thereof killeth lice and nits, and being annointed in any hairie place, causeth the haire to fall away. The vessels made of the wood of iuie are singular to know if there be any water in the wine, for the water will abide in the vessell and the wine will runne out. Seauen iuie berries, with as many peach kernels the skins taken off, boiled in oile and afterward stampt and applied vnto the temples and browes, doe asswage the headach comming from the braine: the iuice of the leaues of iuie drunke with red wine, doth heale the swelling of the spleene: a cap made in forme of a headpiece or skull of the leaues of iuie sowed togither, and applied vnto the head of a little childe which hath the falling of the haire called *Tinea*, doth heale it throughly: the water or gum which droppeth out of the stocke of an iuie tree the rinde being cut, killeth nits & lice.

Priuet. Priuet groweth more then a man would wish amongst brambles and bushes, from which places it may be transplanted into the garden for the benefit of arbours. The water of the flowers thereof may be distilled, and it is most singular against all manner of fluxes, whether of the belly, matrix, spetting of blood, and of the eies, as also for all sorts of cankers: the same vertue hath the iuice pressed out of the leaues, especially for the canker growing in the mouth. There is an oile made of the flowers thereof infused in oile in the sun, which is singular good for the headach comming of a hot cause, and also for inflammations.

The three and fiftieth Chapter.

Of herbes for the arbours of the garden.

The wild vine. FOR want of trees of low growth (such as haue beene spoken of heere before) you may helpe your selfe in the making of your arbours

bours for your garden of pleasure, with certaine herbes which are pliant, and with their leaues apt to make shadow, still prouided that they be borne vp by poles of willow or iuniper dressed and ordred in forme and after the maner of arbours. They are such as follow, the wild vine, hops, gourds, cucumbers, the maruellous pease, winter cherries, the maruellous apples, and other such like.

And as concerning the wilde vine, it groweth more plentifully then a man would wish amongst the brambles and bushes: and therefore from hence it may be transplanted and remooued into your garden for the benefit of your arbours. The roote, especially the iuice, doth mightily loosen the belly, prouoke vrine, purge the braine, open the spleene, and take away the hardnes thereof: applied in forme of a pessarie, it bringeth downe the termes, the after-birth and dead-childe: stampt with salt and applied, it healeth vlcers: it cleanseth the skinne, and taketh away the red pimples of the face, for which purpose also serueth the water thereof, which you may gather in the moneth of May out of a pit which you shall make in the head of the root, as it standeth in the ground, according as we haue already said in the Chapter of Violets going before: in a cataplasme it is singular against the sciatica, as also to take away the haire from some place: being mixt and stampt with buls blood, it is of maruellous effects in harde and schirrous swellings, and cankerous tumours.

We haue spoken heeretofore of cucumbers and gourdes: and therefore it is not needfull to make any new repetition. *Cucumbers and gourdes.*

The ordering of hops is like vnto that of the wilde vine, for one and the same ground and dressing will serue both. The flowers, crops, and iuice pressed out, doe take away the obstructions of the liuer and spleene: and the vse thereof is verie conuenient for such as haue the dropsie: therewith beere is made, as we shall further declare hereafter. *Hopper.*

Maruellous apples are very fit to ouerspread arbours, as well in respect of their beauty, as for that they are pliant, and winding easily about the poles. They would be sowen in the Spring time, in a fat and well battilled grounde: they cannot endure the colde, so soone as their fruite is ripe, which is in Autumne, they drie away by and by: wherefore you must sow them where the sunne hath full power vpon them, and water them oft in the time of great heat, gathering their fruite in September. These apples resemble little limons, as being sharpe pointed at the ende, great bellied in the midst, rough as wilde cucumbers, greene at the beginning, but afterward turning red: the first that euer brought them into *France*, was *Rene du Bellay*, Bishop of *Mans*. They haue also beene found in the gardens of the religious of Saint *Germanes* in the fieldes, and in the Temple garden at *Paris*. They are called of the Greekes Gratious apples, because of their well *Maruellous apples.*

pleasing

pleasing beautie; and of the Latins, *Vuticella*, *Momordica*, and *Balsamita*, this last name was giuen to them by reason of the vertues of baulme which they haue: and in French Maruellous apples, because of the maruellous vertue that they haue to heale woundes. Some take all the seeds out of the apples, putting the said apples into a viole of vnripe oile oliue (or insteed of oile made of vnripe oliues, which is not alwaies readie to be had at *Paris*, some wash common oile very well in rose water or common water, or plantaine, or mulberie water) and doe afterward set the said viole a long time in the sun when it is in his heate, or else they put it in a vessell of hot boiling water: or else burie it in the earth or in horse dung, and this oile is singular good to asswage inflammations of wounds and of the breasts, and hath no lesse vertue then baulme to consolidate or heale wounds either new or olde, being a thing tried of many. The fruit soaked in oile of sweet almonds, or linseed, adding thereto an ounce of liquide vernish for euery pound of oile, maketh the oile verie soueraigne for the paines of the hemorrhoides, burnings, prickings of the sinewes, and to take away the skarres of wounds. The leaues dried and made into powder, and drunke the quantitie of a spoonefull with the decoction of plantaine, doe heale the gripes in the guts, the paine of the colicke, and the wounds of the guts. The oile wherein this fruit hath beene soaked, doth keepe in his place the fundament woont to fall downe in little children, if it be often rubbed therewith: it maketh barren women fruitfull, if after they haue bathed in a bathe for the purpose, and drunke of the powder of the leaues of this herbe, they annoint their secret parts with this oile, dwelling afterwardes with their husbands.

Hemorrhoides.
Burnings.
Gripings in the bellie.
Colicke.
The falling downe of the fundament.
To make women fruitfull.

The maruellous pease are verie rare in this countrie, resembling somewhat winter cherries, as hauing their seed inclosed in a little film or skin, like vnto a cich pease; in the midst wherof, there is the shape as it were of a heart. They delight in a verie fat, moist and well sunned soile, and cannot abide to indure the cold.

The maruellous peason.

Winter Cherries (which the Latins call *Halicacabum*, and the Arabians *Alkakengi*,) are delighted in vines: wherefore they which would haue it planted in their garden, must picke out for it such a soile as would fit the vine. The little cherrie which is inclosed in the bladder, is singular good to prouoke the detained vrine, and to take away the sharpnes and scalding thereof, for the iuice thereof mixt with the creame or milke of white poppie seede, or with the decoction of the seed of melons or gourdes, mallowes, or barly ptisane, and drunke, doth marueilously mitigate the scalding of the vrine: if the roote come neere vnto the aspe or lizard it casteth them into a dead sleepe, and killeth them: the vse of the cherrie is soueraigne against the stone and grauell. Likewise for this disease some make a wine which is

Winter cherries.

called

called winter cherrie wine, which is made with the newe preſſed liquor of good white wine, wherein hath beene infuſed a certaine quantitie of theſe cherries: or with a certaine quantitie of theſe cherries caſt with an equall quantitie of white wine grapes all whole into a new veſſell, the ſame veſſell afterward being fild vp with white wine newe from the preſſe, being afterward ſcummed and vſed after the manner of other wines: or elſe this wine may be thus made, theſe cherries are troden amongſt ripe grapes, and being ſuffered to worke together certaine daies, they are afterward tunned vp into veſſels and ordered as other wines: this wine taken the quantitie of fowre ounces in the morning three or fowre daies togither in the decreaſe of the moone, clenſeth the reines, and purgeth out great quantitie of grauell.

The fower and fiftith Chapter.

Of trees both great and ſmall, aſwell outlandiſh as of the ſame countrie, being planted or ſowen either vpon beds or in veſſels, in the garden.

THe Baie-tree will grow in all places, but it is not as eaſilie preſerued and kept in euery place: for it delighteth eſpecially and naturally in a hot or temperate countrie, for in a colde it groweth not but by conſtraint: but and if you be diſpoſed to haue it to grow in this cold countrie, you muſt plant it ſo vpon the ſun, as that it may thereby ſhake off and better paſſe ouer the extremity of the cold; and on the contrary in a hot countrie you muſt plant it ſo, as that the ſunne may come but ſparingly to it, to wit, euen when the ſhadow will be hard at the foote of it: notwithſtanding it delighteth much in places neere vnto the ſea, in leane and thinne grounds, where the aire is warme and temperate of it ſelfe. It muſt be planted in Autumne and in the ſpring time, of ſets of whole plants, or of branches: & in March it is planted very fitly and ſeaſonably, when as the ſappe putteth vp and commeth to the barbe. It may likewiſe be ſowen after the fowreteenth day of March in a ground that is well manured, one foot within the ground and fowre berries togither: and at the yeeres ende to remoone it to ſome other place. The baie tree feareth the cold aboue all other things, and for this cauſe it muſt be planted in this countrie in a firme and ſolide ground as hath beene ſaid, to the end that during the times of ſnow, froſt, and freeſing vpon raine, the roots may be defended from colde, which although the boughes and branches ſhould be dead, by the colde of winter, would yet continue to bring foorth new boughes in the ſpring time: for the faſtnes and cloſenes of the ground will haue let, and ſtaied the aire from hauing pierced vnto the rootes. And in caſe the ground where you haue planted your bay tree ſhould be ſandy, dry, and barren, then it will be your part during the time of winter to ſpread and caſt aſhes and ſtraw about the rootes

The baie tree.

The bay tree cannot indure cold.

of

of the baie tree, to preserue the heate of the earth, and to withholde the colde from pearcing vnto the rootes. Then for to procure a flourishing and faire baie tree two things are necessarie, the heate of the aire, and the fastnes of the ground, of which, if the one be wanting, the baie tree will not grow any thing at all; or if it grow, yet it will be but a small and starued thing, as we may easily make triall and proofe in this countrie. The baie tree may be grafted vpon it selfe, as also vpon the dogge tree, the ash treee, and the cherrie tree, as we will declare more largely in the third booke.

Two things causing baytrees to prosper.

The mirtle tree.

The Mirtle tree is of two sorts, the one is a darke greene, the other is a light greene, the one beareth a yellow flowre, and the other a white, but of these the latter is the better: but euerie sort of mirtle craueth a hot country, a light, sandy, leane, and brittle kind of ground, & yet notwithstanding this, it groweth well vpon the sea banks, as also vpon the sides of pooles, lakes, & fennes. It is planted either of yoong boughes borowed and cut downe for the excessiue ranknes of them, after it is fowre or fiue yeeres old, or from the shootes putting foorth at the roote thereof, separating them from the maine roote so soone as they be put vp, and from after a yeere of their first planting to remoouе them: or else of seede, rubd and chafed betwixt your handes, and after thrust into an old band or small corde: the same buried all along according to that length that it is of in a furrow cast a foote deepe, or thereabout, and well manured with rotten dung, and watering the place. The mirtle tree would be planted in the highest part of the garden, for by his smell it maketh the place most delightsome: it may be sowen also after the manner of the baie tree, but then it will not grow vp till after a long time. It will grow high and faire, if you make it cleane and scoure it often round about, and it will bring foorth much and great fruit, if you plant rose trees neere vnto it, or else plant it neere vnto oliue trees, in the countrie where they grow: for the mirtle and oliue trees doe helpe one another greatly. It loueth and craueth to be watred with mans vrine, but especially with sheepes: or when you can get neither of these, with warme water, wherein it delighteth exceedingly. as sometimes appeered by a mirtle planted neere vnto a bath, which to euerie mans sight grew very pleasantlie and beautifully, though there were no reckoning or account made thereof. Mirtle berries put in a vessell which is not pitched but well couered, doth keepe a long time greene and fresh: Some hold it better to put them in, hanging vpon their boughes: The mirtle shunneth nothing so much as cold, and taketh delight to be neere vnto pooles, brookes, and maritime places. If you water it oft with warme water, it will beare fruit, but without any kernell.

The fruite of mirtles without anie kernell.

The fruite is called mirtle berries. It must be gathered when it is faire, euen a great while after that the rose is fallen and shaken. It may be

be grafted vpon another of his owne kinde, and the white vpon the blacke, and the blacke vpon the apple tree, medlar tree, and pomegranate tree.

After vintage time in the countrie of *Prouence*, where there is great number of mirtle-trees, the birds feede of the fruite of the mirtle tree, and thereby become so fat, and their flesh so pleasant to eate, as that men eate birds so fatted all whole without pulling out of the garbage: insomuch as it is growne into a common prouerbe, that the excrement is better then the flesh.

The leaues, baies, or berries of mirtle tree by their astringent force and facultie do staie all manner of fluxes, whether it be of the belly, or of the termes, or principally of the whites: the iuice and distilled water of mirtle tree are singular good to drink, to keepe vp the falling fundament. The decoction of the seede of mirtle tree, doth blacke the haire, and keepeth it from falling. The berries of the mirtle tree may serue in steed of pepper, the sauce made therewith worketh the like effect, & is singular good to comfort a languishing stomack: mirtle berries eaten do comfort the hart, and cure the beating of the same: the ashes of the drie leaues of mirtle tree burned within a pot of rawe earth, so throughly as that they become white, being afterwarde washed, haue one and the same vertue that *Spodium* or *Pompholix* hath.

The myrt-tree.

If you cannot make the mirtle tree to grow in your garden, you must content your selfe with the Mirt-tree, which craueth the same ground and manner of ordring that the mirtle tree, (as being a kinde of wilde mirtle tree) and which may be vsed in the steede of mirtle tree when it cannot be come by, as hauing the same or like vertues.

Butchers broome.

Butchers broome is also a kinde of wilde mirtle, which groweth commonly in forrests and vnderwoodes, from whence it is better to translate it into your garden, then either to sowe or plant it.

Tamariske.

He that is desirous to plant Tamariske in his garden, must make choise of the moist and wettest grounde, and for want of a sufficient moist ground, to water it oft: It is likewise seene that Tamariske doth grow faire and tall, by ponds, fennes, and other standing waters. It is planted either of rootes or sprouts, and that from the first of October, till the fowre and twentith of December, yea vntill the beginning of Februarie: but yet it thriueth best being set of rootes: there is no frost almost that will hurt it, especially the roote, for when it is once taken, it putteth foorth continually branches and boughes along the plant.

The wood is principally commended, for that it asswageth and diminisheth the spleene in such as haue it stopt too full of melancholike humours: and hence it commeth that many troubled with that disease, do eate and drinke in vessels made of the wood thereof. And

some

some likewise doe counsaile to giue swine that are troubled with too much fulnes of the spleene, water to drinke in their troughes, hauing first quenched therein coales made of the wood of Tamarisk. The decoction of the roote with damaske raisons is good for leprous persons, and such as haue their spleene amisse: as also for the pockes.

Bastard sene. Bastard Sene, (called of the Latins *Colutea*) delighteth in a ground that is fat and well battild with sheepes dong. It groweth not planted, but vpon seede: and it is meete that the seede be steeped first a long time in water, euen vntill it begin to sprout. The time to sowe it, is about the beginning of the moneth of Iune. It must not haue anie of the branches cut off, nor be pruned or touched before the fourth yere. The fruite serueth to good vse for the fatting of sheepe, and maketh them to haue much milke: it is good also to fat chickens, bees, goates, and kine. Some take it to be Sene, but they do greatly deceiue and beguile themselues.

The caper tree. The Caper tree in many countries groweth without any tilling, in earable ground: but where it wanteth, if it must be sowen, it must be in a hot countrie, and a drie stonie, and sandie place, which shall before hande be inclosed with a little ditch, which shall be fild with stone and lime, or else with fat earth, for to be as a fortresse and defence vnto it, that so the roots of the caper tree and thereby all shouts that might grow vp from them, may be kept from breaking foorth, and spreading further then this ditch: for if they should not be staied and kept backe from spreading by some such meanes, it would come to passe that within a small time they would ouerrun the whole garden, and plant themselues in euery corner of the same. Notwithstanding the caper tree is not so noisome in that respect (because it may be puld vp) as it is by inuenoming (I knowe not by what venemous humour or iuice) the whole ground, and making of it barren. It hath no neede (except a verie little) to be any way tilled or fashioned: for it groweth well inough (without any thing done vnto it) in fieldes and desert grounds. It may be sowen in the spring and Autumne.

The fruite of the caper tree, as welll the great as the small, is good in a salade to prouoke appetite, clense the flegmatike stomacke, and to take away the obstructions of the liuer, but principally of the spleene: the rinde of the roote and leaues haue the like vertue, but more effectually. Capers both the great and the small whiles they are yet greene and not salted, do nourish a great deale more, both of them are in request, not so much for that they are fruite, as for their manner of preseruing, which is performed either with vineger, or else with salt brine: for capers not pickled are of a very sharpe and vnpleasant taste, but the vineger wherein they are preserued doth make them very acceptable vnto the stomacke: but the great ones because they haue both more iuice and more pulpe, are a great deale better

then

then the little ones : though the little ones are more delightsome to the taste then the great ones, because they are fuller of vineger than the greater ones.

Agnus Castus.

Agnus Castus, seeing it commeth very neere to the nature and condition of the willow, and of the same colour with the leaues, disagreeing onely in smell, craueth to be planted in a watrie place, where there is much shadow : or at the least to be oft watered. The leaues, seed, and flowres, are singular good for them which would liue chastly, taken inwardly, or applied outwardly : for some say that the leaues, seede, or flowres, put into little bags, and applied vpon the reines in bed, doe helpe to keepe the chastity of the body, which is the cause that in many countries it is seene planted almost in all the monkeries. The decoction of the leaues is good against the scalding and burning vrine, aswell in drinking as in fomenting it, as also against the obstructions of the liuer, spleene, and matrix. If you carry a branch of *Agnus castus* about you, you shall not grow wearie, no not after much trauell. The fume thereof taken in at the secret parts of women, doth quench the vnsatiable lust and burning desire vnto venerie and carnall copulation.

Chastitie.

Heat of vrine.

The burning heat of the secret parts.

Beane-tree, or saint *Iohns*-bread (bearing a long, flat, and broade fruite, like vnto that of Cassia) would be planted of newe shootes, in February and Nouember in a drie ground, lying open vpon the sun, and where as there are very deepe ditches made. It may also be grafted into a plum-tree, or almond-tree : in anie case you must neuer thinke vpon the sowing of it, because so it would neuer beare any fruit, but would die very quickly : it must be oft watered.

Carob or beane tree.

The cods are good to fat children or swine, but not so fit to feede men : It is true that the fruite doth loosen the belly gently, as it were after the manner of Cassia.

To feede swine.

There are many sorts of the date-tree, some beare fruite, and some are barren : and of the fruitfull some beare a reddish fruite, and some a white, and other some a gray : furthermore some are males, and some females : some are high and tall, and some are stouping downe and but low, and therefore called the little or dwarfe date-tree, and some of a middle size betwixt both : but howsoeuer they differ, yet heerein they agree, that they all desire a hot aire, a great deale more than temperate : for in a hot countrie it bringeth foorth very faire and ripe fruite, and of it selfe is sufficiently kept and preserued, without any further paine or care, except it be about the watering of it : where in a temperate region it either ripeneth not his fruite, or else beareth none at all. It craueth a sandy, salt, and nitrous ground, foreseene that it be somewhat moist, and this is the cause why it prospereth well vpon the sea coast : and if the grounde where it be planted be not such, it must be watered with salt water, or salt brine.

The date-tree.

It

It is planted of ſmall plants, with roots in Aprill and May, the plant being well laid about with fat earth. Some alſo ſowe the newe ſtones of dates, (and they bring forth their trees in October) two cubites deepe in the ground, and that mingled with aſhes and well inriched with goates dung, and the ſharpe ſide of it muſt be vpward, it muſt be watered euery day, and euery yeere there muſt be ſalt ſhed about it, or elſe which is better, that it be oftentimes watered with water that is ſomewhat ſalt: againe, that it may grow high and faire, it gladly accepteth the watering of his rootes with the lees of olde redde wine ſtrained.

Note likewiſe, that (ſeeing of one date ſtone alone there will hardly grow vp any date tree, bearing ſufficient bignes in the bole and body, to carry and vndergoe the weight of the head) it will be good to put and ioin together two or three date ſtones, ſowed vp in a linnen cloth, in ſuch ſort as that the ſharpe ſides may behold one another, and ſo to ſet them: for by this ioining of two or three together, your tree may come by a body ſufficient big to beare the head. Note further that if you would haue the female date tree to beare fruit, that then you muſt plant it neere vnto a male date tree, and not one onely, but many if it be poſſible, becauſe the neere ſtanding of the one vnto the other, cauſeth that the vertue of the male is conueighed and imparted vnto the female, and that by the commixtion made by the wind, from whence ariſeth abundance of fruit. But and if you haue not the means to plant many male date trees neere vnto the female, it will be ſufficient if you do but touch the male oftentimes with your hand, and then afterward lay the ſame hand vpon the female: or you muſt gather of the flowres of the top of the male, or of the moſſe of the male, and ſprinkle the ſame vpon the female. Eat but as few dates as you can, for they make obſtructions in the liuer and ſpleene, and are alſo of hard digeſtion, and cauſe the headach.

The Pine-tree. The Pine-tree groweth chiefly of a kernell, which muſt be planted in October or Nouember in warme places: or in colde places in February or in March: or about the fall of the apple, or a little after, and that in pits well digged, and which haue laine vntild and vnoccupied a good time: the apple muſt not be broken by force of any iron thing, to get out the kernels, which muſt lie in ſteepe three daies before hand, and ſeuen of them ſet together, and that fiue fingers deepe onely, when they are growne vp you muſt not be too haſtie to remooue them, becauſe they take not roote but in long time, and verie hardlie: nay, they cannot abide at all to be tranſplanted without their great hurt and hinderance: but yet when time may ſerue to tranſplant them, in any caſe beware that you do not hurt their roots, eſpecially the principall and thickeſt ones. The Pine-tree groweth chiefly and thriueth beſt, vpon high mountaines, and places that are open

vnto

vnto the winde, ſtill regard being had, that the place where they ſhall be planted, be as carefully husbanded and tilled, as if it were for to beare and bring foorth wheat. It will continue the longer time, if the barke be oft taken from it, becauſe that vnder the batke certaine little wormes do breede, which fret and deſtroy the wood.

The vertues of pine kernels.

The diſtilled water of new Pine kernels, take away the wrinkles of the face, and diminiſh the breſts that are too great and ſwagging, if there be laide vnto them linnen clothes dipped in this water as oft as you can: this water alſo is ſingular good to draw narrower the ſecret parts of women being too much diſtended and enlarged, and to cure them of all manner of rheumes and diſtillations: but yet their iuice is more effectuall for theſe matters, than the diſtilled water.

The vertue of the pineapple.

Pineapples are a meat of very eaſy nouriſhment, and for that cauſe are very good for ſuch as are troubled with the cough, for them which are in a conſumption, and ſuch as are ſick of an hectick feuer, but they muſt haue beene ſteept ſometime in roſewater to take away their acrimonie, ſharpneſſe, and oily ſubſtance: it is true that they be hard to digeſt, and therefore to ſuch as are cold of nature you muſt giue them with honie; and to thoſe which are hot with ſugar to helpe out with the hardneſſe of their digeſtion. They are good for ſuch as haue the palſey, for ache in the ſinewes and backe, for heate of the vrine and gnawing of the ſtomacke taken with the iuice of purſlaine.

The fig-tree.

Figges (being one of the beſt fruits we haue, according to the ground and plant whereof they come) are either more or leſſe ſweete and ſauory, and this commeth of the aire as it is tempered with heat, cold, or a milder temper: or elſe in reſpect of the moiſture and drineſſe of the grounds, their fatnes or leannes; their roughnes or ſmoothnes; their ſtrength or gentlenes and eaſines; their ſtonines or being without ſtones, or their ſituation amongſt ſome olde ruines and rotten ſtone wals: for in reſpect of all theſe it falleth out that there are great diuerſitie of figs, as hauing ſome great, ſome ſmall, ſome round, ſome ſharpe pointed, ſome white, ſome blacke, ſome greene, and ſome gray. So that this tree loueth to be in places ſtanding open vpon the ſunne, and therewithall rockie or clayie, ſtony or mixt much with lime, neere vnto wals or olde ruines, yea within the very wals being clouen, or halfe fallen downe, eſpecially that which beareth little figs, very ſweete and white ones, ſuch as are thoſe of *Marſeilles*, for ſuch a figge-tree delighteth in a drie and grauelly place: as on the contrary the figge-tree that bringeth foorth great, leſſe ſweete and reddiſh figs, deſireth a fat and well manured ground. It thriueth and proſpereth in a hot and temperate aire, ſo that the ground be ſomewhat moiſt: for this tree is very dainty and quickly wronged and iniured by froſts, broken downe by windes, and made thinne and leane by drought, by the which the fig will ſooner be ouerthrowne and ſpoiled

than the mulberrie: they are easily hurt by frosts, mists and great cold: wherefore they must be planted in the spring, when frostes are past, vpon the South or East-quarter, in great, deepe, and well digged pits, of shootes and boughes of two yeeres growth, being faire and round ones and full of knots; for these are most fruitefull. And to cause them the better to take roote, you shall take awaie their barke at the neather ende of the stemme about halfe a foote, and yet leauing it notwithstanding fastened thereunto, that so the said barke may turne into rootes.

It may in like manner be sowne of figs laid in steepe and bound about with small lines, and then afterward planted in that maner, and watered often and diligently. But it would suite better, if it were grafted vpon a plum tree or almond tree, for so it continueth a great deale longer: but whether it be planted or grafted it must not be much watered: for abundance of water corrupteth the naturall beauty of the fig-tree and maketh them verie subiect to rotte: it would be a great deale better to make them grow faire and become fruitefull, to thrust the plant into a wild garlicke, called in Latine *Squilla*, and better in English, Sea onion: or else to steepe it in brine, or to set it round about with oxe dung, or with vnquencht lime. And to keepe and gard them from frosts, they must from the eleuenth of Nouember be couered verie well with straw, or with the stalkes of line, tying these things to the rootes and to the boughes so well and in euery place as that there remaine nothing to be seene of the plant. If you would haue the fig-tree to bring foorth a late fruite (which is a thing against his nature) you must take from it his first small figges which begin to grow great, and the figge-tree will put foorth an other and second fruite, which will be kept till winter. Likewise it will be fruitefull and bring foorth a full fig and of a good verdure, if from the time that it shall put foorth his leaues, there be put to his roote red earth beaten and tempered with the setlings of oile oliues and mans dung: or else when it shall begin to spring to cut off the toppes and endes of the branches. Figs will be more forward and early, if there be applied vnto the rootes of the trees pigeons dung, and pepper braied and mixt with oile: or else if when their grosse and vnripe apples shall begin to grow red, you annoint them with the iuice of a great onion, mixt with oile and pepper, or if when as their fruite shall be reasonably great, you pearce them with a needle, and afterward rubbing them with oile, you couer them with oliue-tree leaues: for the heate, being nothing hindred through the great moisture of the figge, doth concoct the fruite and ripen it most easily.

Late figs.

A fruitfull fig-tree.

Early and timely figs.

They will be of a diuers colour: that is, white on the on side and red on the other, if you tie together in a linnen cloth the seede of two diuers figge-trees, and so planting them, afterward to transplant them

Figs of diuers colour.

them. You shall reclaime a wilde fig-tree, if you water him at the rootes with wine and oyle mixt together. Figges will not fall downe from their tree, if you water the bodie ditched round about with salt-brine and water equally mixt together: or if you burie neere vnto the fig-tree the hornes of rams or weathers. You shall keepe them continually green if you put them in a pot full of honie and well stopt, in such manner as that one of them doe not touch another, nor yet the pot: or else in a gourde euerie one by it selfe, hanging the gourde in a shadowed place, where neither fire nor smoake may come vnto it. Or if you put them in an earthen vessell hauing the mouth well stopped, putting the same vessell afterward into another vessell full of wine: for as long as the wine remaineth vncorrupted, so long the figs will remaine sound and safe. You shall preserue drie figs from rotting or corrupting, if you spread them vpon a hurdle in an ouen, after the bread is drawne, and put them afterward into a new earthen vessell vn pitcht. You shal haue figs that loosen your body & make it soluble, if you put at the roote of the fig-tree when you plant it some blacke hellebor stampt with spurge, or some other such purgatiue.

To make a good fig, of a wild.

Greene figs.

Soluble figs.

Furthermore, the fig-tree hath this vertue, that if you haue a wild and vnruly bull which you cannot tame by any meanes, if you tye him to a fig-tree, by and by he will become gentle forgetting his naturall sauedgenes. Furthermore, to make the hard and tough flesh of any beast tender by and by, you must hang it to a branch of a fig-tree; as also to make it to be boyled quickly, you must stirre it oftentimes in the pot wherein it boyleth, with a ladle of the wood of a fig-tree: for the fig-tree breatheth foorth a certaine kinde of vapour which drieth vehemently and digesteth the hardnes of any flesh whatsoener, whether peacocke, birds of the riuer, or other such like. It is true that there is other meanes to make tender the flesh that is tough, as to put it in a heape of corne. We may further note I know not what secret vertue in the fig, for the horses and asses laden with figs doe easily fall downe vnder their burthen, and loose all their strength, which notwithstanding are as easily recouered of their strength and refreshed, if they haue but giuen them a morsell of bread. It is also woorth the noting how that the iuice or milke of the husbanded or tame fig tree (as we haue before shewed in the treatise of the making of cheeses) serueth for the turning of the milke into curds, as well as the renning: figs boild with hyssope, doe heale an olde cough, and amende the diseases of the lungs. The fruit doth soften the belly, nourisheth much, prouoketh sweate: being drie mingled with the flower of linseed and fenugreeke, it killeth or resolueth impostumes, and hard swellings: in decoctions it is good for the cough and difficultie of breath: the flowers are good to eate, notwithstanding that swine auoide and shun them in all they may.

To tame a wild bull.

To make hard flesh tender.

Burdens of figs cause horses and asses to faint vnder them.

The plague. King *Mithridates* made an opiate against all manner of poyson and danger of the plague, which was compounded of figs, walnuts, and rue, as we haue said before in the Chapter of Rue.

For kibed heels. Figs burnt and made into powder, mingled with a verie little waxe, doe make a verie soueraigne medicine for kibes: the iuice of figs doth heale all roughnes, ill conditioned scabs, small pockes, purples, freckles, ringworms, and other spots and defilements of the bodie and of the face, being annointed thereupon with the flower of parched barly. It cureth also the paine of the teeth, a little cotton wooll being dipt therein and laid vpon the tooth: it openeth the hemorrhoides.

The olive tree. This tree is easie to make grow, and delighteth in hot and temperate countries, as in *Languedoc* and *Prouence*, where it may be seene growing as it were in little forrests, and it is so long liued and of such durablnes, as that though the labour due to bee bestowed about it be left of for a long time, yet it ceaseth not to beare fruite more or lesse, and comming to it selfe againe, being old, it becommeth yoong againe and getting foote liuely, of drie it becommeth marrowish and fattie, and of barren, fruitfull: In these northren countries it groweth not without great paine and laboure, by reason of the coldnes of the aire. Wherefore if you be minded to plant the olive tree in your garden, choose out a place standing vpon the South or East quarter, raised sufficient high, and open to the western winde, and which hath also rested a good while, consisting of potters clay vnderneath, and aboue mingled with sand & fullers clay, being also a close, moist & not leane ground, and in this you shall plant it about mid-March, not of sprouts putting foorth at the foote of the olive tree, but of sciences, shoots, and branches that are yoong, faire, & fertill, pulled from the boughes of the tree, as thicke as the wrest, and a foote and a halfe long verie round, hauing a sleeke & glistring bark without boughes, & cut down in the new of the moon, raising the thick barke about the lēgth of a fadom, & letting the greene barke alone which is more fine & thin: and you shall set them in the ground in such manner as they did grow vpon the tree, as the lower end downward, and the vpper end vpwarde towards heauen, as when they grew vpon the tree: for if you set them the vpper ende downewarde, they will hardly growe, but and if they grow, yet they will abide barren for euer. You must lay the roote, as also the head all ouer with dung mixt with ashes, and set them on such a depth in the earth, as that there may be aboue them some fowre fingers thicknes of fine small moulde, and afterward treade all close downe together round about the newe set plant, and so cast still more earth vnto it, as it sinketh with treading, or else you may beate it downe with a rammer of wood. It must not be transplanted till after fiue yeeres, but in the meane time you must digge it euerie moneth,

moneth, and dung it with goates dung euery yeere in Autumne. You muſt water it with raine water, rather then with fountaine, riuer, or well water. And ſometimes you muſt prune and cut away the ſuperfluous branches, eſpecially the drie and withered ſhootes, and the branches putting foorth vpon it, if ſo be that the plant be not become old, feeble and broken, in ſuch ſort, as that it ſtandeth in need to be renewed and planted againe, for then it will be requiſite to leaue growing, one or two of the faireſt, and not to cut them downe before they haue growen eight yeeres, and then at ſuch time as the moone is decreaſing, and the ſeaſon drie and faire. And ſometimes euerie eight yeere you muſt moiſten the roote of the oliue trees that are luſtie and well liking with the lees or grounds of oliues to keepe them from wormes and other vermine, which are oftentimes noiſome vnto this plant: you muſt alſo defend them from cattle, eſpecially from the brouſing of goates, which would make them altogether barren: you muſt not plant any other plants, neere vnto the oliue-tree, excep the figge-tree, or the vine, whoſe companie and neighbourhoode it reioiceth greatly in, and hateth eſpecially the oake, yea euen to be planted in the place where the oake was ſtanding and is puld vp, for there it dieth preſently. The oliue-tree may be grafted in the budde, with that kinde of grafting called the ſcutcheon, and that of the thickeſt and ſtrongeſt grafts that may be pickt out of the oliue-tree, as we will further ſhewe heereafter: but it were but a loſt labour to ſowe it of his ſtones and kernels.

A maruelous thing about the oliue tree.

The oliue-tree is leſſe ſubiect to vermine then any other, becauſe of his ſtrong ſauour, inſomuch that it is as good as a ſhielde vnto all other herbes that are about it: as alſo by his bitternes it killeth colewoorts, lettuſes, and other moiſt herbes which are ſowen in the ſame ground with it. Some holde (which is a marnelous thing) that the oliue-tree groweth more fruitefull and abundant in increaſe, if it be planted and looked vnto by ſuch as are virgins, and haue not vnlawfully abuſed their bodies and other mens beds, or otherwiſe: and that therefore in ſome countries the planting of it is committed vnto ſuch youthes as are certainly knowne to be chaſte, as alſo the ordering and gouerning of them, and that there they grow faire, and bring foorth much fruite.

Virginitie. Chaſtitie.

The gathering of oliues

You moſt gather them with your hand, when you are got vp into the tree by a ladder, you muſt not hurt the branches, for that might make the oliue-tree barren: it muſt be done in November when they begin to change their colour and are very blacke: this time muſt be faire and not rainie: yea, and if it haue rained ſometime before your gathering, you muſt ſee that it be dried vp againe verie throughlie. Some gather their oliues after another faſhion: they beate them downe with long ſlender poles, or pearches of reed, not of wood, and

are carefull not to ſtrike againſt them for feare of beating down ſome of the branches together with the fruit : but ſuch manner of gathering oliues is not good, becauſe the oliues beaten downe or ſtroken, do wither incontinently, and do not yeeld ſo much oile; put alſo vnto this diſcommodity, that other, which is, that the tree is bruſed, & many of his branches broken, which is a great hindrance in the yeeres following. Furthermore, oliues are gathered for two ends, either to make oiles, or to ſerue as diſhes at banquets, to the end that they may prouoke appetite : notwithſtanding we muſt not thinke that all ſorts of oliues indifferently do ſerue for theſe two vſes : for the greateſt for the moſt part are better for banquets, and the leſſe to draw oile out of. But thoſe which are intended to be reſerued for banquets, muſt be carefully preſerued with ſalt brine or ſalt vineger, or oile, or the groundes of oile, or with cute, or the droſſe of grapes, or honie, or veriuice, in manner as followeth.

Oliues ſerue to make oile of, and to ſerue at table.

The gathering of oliues to ſerue in bankets.

They muſt be gathered with the hande, hauing got vp into the tree with a ladder, in faire weather when they begin to be blacke, and are not as yet throughly ripe : then afterward to ſpread them vpon a hardell of oziers, and there pick and cull them out at your pleaſure, putting aſide all ſuch as are ſpotted, corrupted, or very ſmall, and reſeruing only thoſe which are groſſe and great, faſhioned like an egge, full, faſt, hauing a long and ſlender ſtone, a cloſe pulpe or fleſh, and in good quantitie. This done, they muſt be clouen in fower places, or without any ſuch cleauing, be put whole into an earthen pot, and ſalt brine or veriuice powred vpon them, or elſe honie with vineger and ſalt, or oile, with ſalt beaten ſmall, or elſe with wine new from the preſſe, or ſuch other liquor, as hath beene alreadie ſpoken of. Some put in the bottome of the earthen pot vnder the oliues, or into their pickle, the leaues or ribs of penniroiall, mints, aniſe, maſticke tree, oile tree, ſmallage, rue, parſlie, fennell, and baie-tree leaues, and the ſeeds of fennell, aniſe, and rue. Finally, you muſt keepe the veſſell well ſtopt, and put it in ſome cellar to keepe : but he that would keepe oliues a long time, muſt change his ſalt brine euery quarter of a yeere.

The gathering of oliues to make oile of.

As concerning oliues to make oile of, they muſt bee gathered when they are ſomewhat more ripe then thoſe which are to bee preſerued, and when as there are many of them become alreadie blacke, but yet not ſo many as are white : in other reſpects they muſt be gathered in ſuch manner as we haue ſaid that the others ſhould be gathered, that is to ſay, with the hande, and when it is faire weather, except it be thoſe oliues which by tempeſts and windes haue beene blowne to the earth, and ſuch as muſt needes be gathered, aſwell becauſe of wilde as tame, and houſe beaſts. There muſt no moe be gathered at one time, then may be made into oile that night and the day following, for all the fruite that is gathered in a day muſt preſent-

ly

ly be put vpon the milles, and ſo into the preſſes, but before that they be put into the preſſe, they muſt firſt be ſpred vpon hurdles, and pickt and culled : as likewiſe that their lees and waterish lrquor may runne out a little and ſpend it ſelfe, for it is a great enemy vnto the oile, inſomuch as that if it remaine, abide, and ſtand with the oile, it ſpoileth the taſte and ſauour of it. And therefore in this reſpect, when ſometimes the quantity of oliues is ſo great, as that there want preſſes and workemen to diſpatch them, you muſt haue a high and well raiſed floore, where you muſt prouide partitions to keep aſunder euery daies gatherings, and theſe partitions, in the bottome, muſt be paued with ſtone, or with tiles, or ſquares made ſomewhat ſloping, that ſo the moiſtnes of the oliues may conueigh it ſelfe along the channels which ſhall bee there prouided. And thus much concerning the preparing of oliues to make oile of : it remaineth now to ſpeake of the making of oile, but we will reſerue that for the end of the third booke, where we will make a large diſcourſe of the making of oiles.

Finally there is a very aſtringent and binding faculty in the oliue tree : for the decoction of the leaues in a clyſter doth ſtay the fluxe of the bellie : the iuice preſſed from the leaues with white wine and raine water, doth ſtay all manner of fluxes of bloud : the liquor which droppeth from the greene wood of the oliue tree when it is burning, doth heale the itch, ringwormes and ſcabs. Oliues yet greene and vnripe, do ſtirre vp and prouoke an appetite being eaten, and cauſe a good ſtomacke, but they make the body coſtiue, and are hard of digeſtion. Ripe oliues doe ouerturne the ſtomacke, and make boilings therein : they cauſe alſo headach, and hurt the eies. As concerning the vertues of oile, we will ſpeake of them in his place. See more of the oliue-tree in the third booke.

Fluxe of the bellie.

Flux of bloud.

Itch.

Ringwormes.

Scabs.

Piſtates require as great toile and diligence about them as the oliue tree, and would be ſowen about the firſt day of Aprill, as well the male as the female both iointly together, or at the leaſt one very neere vnto the other, the male hauing the backe turned to the Weſt : for being thus ioined or neere neighbours one vnto the other, they beare better and greater ſtore of fruite, eſpecially if they be ſowen in a fat grounde and well aired, and there you may graft them at the ſame time vpon themſelues, or vpon the turpentine-tree, notwithſtanding that ſome do graft them on the almond-tree. They may in like manner be ſet of plants, and the manner of planting them is thus. You muſt make pits ſufficient deepe in ſome place where the ſunne ſhineth verie hot, and chooſe new ſhoots of the tree which are in very good liking, and theſe bound together, put into the pits the ſecond day of the moneth of Aprill, afterward binde them together from the earth vp to the boughes, and couer the rootes with good dung, watering them continually for the ſpace of eight daies. And after the body of the

Piſtaces.

tree is three yeers old, you must lay open the pit neere vnto the roots, and set the body somewhat deeper in, and then couer it againe with good dung, to the end that when the tree shall be growen great, it may not be ouerblowne with great windes.

This tree was rare and hard to be come by in this countrie, before the most reuerend Lords Cardinal *du Bellay*, and *Reue du Bellay* bishop of Mants, brethren, and men woorthie of eternall memory for their incomparable knowledge, alone and before all other Frenchmen, had brought into this Countrie the knowledge, not onelie of names which were altogether vnknowen vnto vs, but also the ordering and figures of strange herbes, and trees, the fruites whereof we are greatly in loue withall, and do highly commend: notwithstanding that as yet we do scarse know themselues. But surely heerein this whole nation is bounde to acknowledge an euerlasting dutie vnto them for the same.

The fruite of Pistaces (as *Auicenne* saith verie well, not sticking at the scruple and doubt which *Galen* casteth in the way) do comfort the stomacke, and nourish much: and this is the cause why they are prescribed them, which are leane and worne away with sickenesse, and which desire to bee strong and mightie in performing the acte of venerie.

Citron-trees. Limon-trees. Orange-trees. Citron-trees of Assyria.

Citron-trees, Orange-trees, Limon-trees, and Citron-trees of Assyria, require the like manner of ordering, by reason of their like nature, whereunto, in respect of their great tenderneſse and incredible daintinesse, it is needfull to giue great heed: for otherwise there is no hope of reaping any profite or pleasure of them. And forasmuch as they are best dealt withall and found to prosper most, when they are gotten already growne great from some other place, (it being so difficult a thing and exceeding toile, to make them breake the earth and growe vpon the seedes in this countrie,) I will make a briefe discourse, concerning whatsoeuer is requisite for the preseruing, planting, remooving, and gouerning of them in our country and grounds.

The manner of transporting Citron-trees &c.

And therefore to speake (in the first place) of the manner of transporting of them, we must thinke that these trees get no good, by changing their place, but that they woulde doe a great deale better in their natural and native soile and ground, where they were first planted, sowen or grafted, than to be remooued elsewhither. Notwithstanding if it please the Lord of the Farme, to procure them from far, he must do it in the spring time rather than in Autumne: because euen as in Autumne the wood thereof groweth hard and solide being ripe, and for that the sap ceaseth to comfort it with his warme moisture, by reason of the approching cold: so in the spring time on the contrarie, they begin to bud, by and by after that they are set and planted, and bring foorth leaues, yea and flowres, if the plants be great and strong inough.

inough. The way to transport them is in such sort to fit the roots with clothes or strawe, as that you maie binde therein vnto them so much of the earth from which they were taken, as may defend them from being hurt, either by the winde or sunne; and hauing thus done to fit them further with barrels or seare clothes, the better to keep them from all the iniuries of the aire, as also from the raine, and to cause them to be conueighed vpon horses, carts, or waggons, so soone, euen the same night that they shall come to the place where you would set them, you must well aduise and consider if they be altered, (which will be knowen by the change of the leaues and barke) and then to prouide for that accordingly: for in such case you must take awaie the earth, and temper it soft anew, water them, cut them and take away the blasted or withered, vntill such time as the pits where you intend to set them, be seasoned in such sort and manner as shall be said heereafter.

Taken out of the remembrances of Monsieur Nicot sent from Portugall vnto Q. mother and to the Cardinall of Lorraine.

You shall in the day time view well your ground, and see that it be a good substantiall blacke, open, tender, sweete, light, fat, and cleane earth, without any manner of stone whatsoeuer, neere vnto the sea coast if it be possible, where moisture aboundeth, and furthermore, that it be easie to be stirred, to the ende it may drinke in the water in abundance, where you mean to set these trees. For these trees crauing much watering, if the water should stand aboue the earth and not sinke downe, the rootes would become sicke, discoloured, and by little and little would looke the deadly colour of pale, blacke, or blewe. If the earth be not easie to be stirred, you must couer it with horse dung very well rotted, or else with oxe or sheepes dung: and by this meanes it will become easie to be pearced or stirred. The place where they are to be planted must be open vpon the sunne, a high place, and shiltred from all the quarters, from whence frosty winds do blow, but principally the northren wind, which is alwaies most contrary vnto those plants, it must be also open vpon the south (because contrary to the nature of all trees they feed vpon this wind, and starue through that of the north) and a little vpon the West, in such sort, as that they may be garded on the backpart and both sides, but specially the citron tree, which is the most tender of all the other. For which considerations it will not be amisse to set them neere vnto some wall, of a conuenient height, to the end they may haue a rampart against the Northren parts: and for the more certaintie to make them a hoode and flankers of bay trees, for the encrease both of the beautifulnesse as also of the profite of the same: for some holde that the companie of the bay tree doth keepe the orange tree from frost. These baie trees shall be planted in double chesse, that so the thinnest places of the first may be amended by the thickest places of the second: but and if you haue not bay trees to doe it withall, then you may take Cypres trees.

Ground fit for these trees.

trees. And heere you must learne that orange-trees loue not the companie of any other tree but of the forenamed, and of the mirtle-tree. The best of all, and most assured for profite, were to plant the said orange-trees, citron-trees, and other such like trees in halfe barrels or vessels of earth made for the purpose, (they being the chiefe pleasures of Princes and great Lordes) or else in cases that are wide belowe, and narrow aboue, builded of clouen boordes, very well ioined and fitted together in such sort, as that no shootes may grow through them, for the earth by reason of the oft watering of it, doth not cease continually to cause them to put foorth and breake out, one way or other: But that such watering may be conueighed in best sort for their growth, it must be prouided and brought by some low conduct and passage, and the surplussage carried away by some such cocke as is vsed in lee tubbes: and such or the like vessels must be made to carrie into any place whatsoeuer a man will: for seeing that these plants doe die, if they be touched neuer so little with frost, as beeing most tender, and dainty of their naturall inclination, it must bee looked vnto in Winter, after that they are well couered and compassed about with straw, or the stalkes of gourdes, (for by a naturall contrariety they are giuen to let and hinder the frost from hurting them) that they be conueighed vpon small wheele-barrowes into vaulted caues, and when sommer is come to returne and bring them backe againe into the full and open sunne, to be nourished and refreshed by the heat thereof. Then hauing found out such a place in the garden (as we haue spoken of) there shall pits be cast with distances betwixt: and whereas the orange-tree doth shoote out his rootes deepe into the earth, you must cast the saide pits a good fadome deepe, and a fadome and a halfe in compasse, which shall be well broken and made soft, that so the root may rest and spread it selfe at pleasure, which pits shall grow narrower by little and little towards their top: and where they are to embrace and close in the foote of the tree. These pits to do well should be kept open a yeere or thereabout if it were possible, for the well seasoning of them, which by many sunne-shines, and many raines would be effected: but there may more speed be made with them, either by couering the places of the said pits with well rotted dung and new ashes, which neuer were wet, and watering it with a little water if the time and season be not rainy, or by filling vp the saide pits with wheat straw, or with small vine branches, burning it all, and afterward watering the ashes which shall remaine, if the season be drie and without raine, for within eight or ten daies after this preparing of it, the said pits will be well seasoned. About the end of the same time you must againe break and soften the earth of the seat of the said trees, and the sides thereof, and lay into them a finger thicknes of dung, and againe vpon this dung the like thicknes of good moulde, and then

Holes or pits.

vpon

vpon it to set the tree, in the very same aspect of the sunne (if it be possible) that it stood in before the taking vp : that is to say, that euerie part of the tree stande vpon the same quarters of the heauens that it did before, for otherwise it would not serue, if the side beholding the north before should now behold & stand vpon the east or west. And this obseruation is of great moment, forasmuch as they which faile in this do oftentimes see their trees dead, or else (notwithstanding whatsoeuer other meanes vsed) bringing forth very late & vntimely fruit, with like vntimely growth and blossoming, which they woulde not haue fallen into, if they had beene set againe after the manner they stoode, before they put foorth any budde or branch out of the earth. And this disuantage likewise hapneth to them which hauing planted their trees in pots or cases, vse to carrie them into houses, and vnder rooses in the winter time, and out againe at the spring, without any regard to set them after the same situtation and state of standing wherein they stood the yeeres before.

Thus the tree being seated vpon the ground in the like aspect of the sunne that it was, you must dresse it about the foot with a leuelled bed of good earth, of the thickenes of halfe a foote, and trample it downe, and againe vpon this to make a bed of the same thicknes of good made earth, and for want thereof, with earth newly mixt with good dung, and to tread and trample it downe, and thus by courses of the one and the other to continue till the pit be filled vp euen with the greene swarth, and then to water it. All these said and seuerall workes shall be ended before the full of the moone, and the better if it be in the increase of the day, that is to saie, about nine or tenne a clocke in the morning. For some hold that if these things be done in the full moone, that then there woulde growe wormes and ants, betwixt the bodie and barke of the orenge-tree. Being thus planted, you shall order and gouerne them, both in sommer and winter in manner as followeth. In sommer they shall be watered euerie three daies morning and euening, and ofter too, if the greatnes of the heate do require it. For the orenge-tree aboue all things doth require water, and standeth in need of two buckets of water at the least vnto euery foote or tree roote, and therefore the gardners are happie in this case, which in their gardens, or not far off haue water at cõmandement, bicause commonly they reape both more fruit, and that also more beautiful & faire & better seasoned. Such as water them must beware of touching the stocks or trunkes of the tree, or else the foot therewith, but rather that they cast it a prettie way off, and that round about, that so it may sucke in and sinke downe equally vnto and vpon the rootes : and to this end you shall make a little furrow digd some three fingers deepe round about, and into this you shall powre your water, and when it is suncke, you shall fill vp the furrow againe. In winter the care and labour is the

greater

iudge it neceſſarie: in as much as theſe trees, being both daintie and pretious, doe require a verie carefull regard to be vſed in this cutting: it muſt not furthermore be forgotten to take from them continually all manner of ſuperfluitie, filth, and graſſe growing at their foote or elſewhere; and likewiſe thornes or pricks, and that with the hands or ſome other cutting yron: and if any branch through froſt or otherwiſe grow drie, pale, or blacke, you muſt cut off the dead part at the ſpring in the decreaſe of the moone, in faire weather, and calme and temperate, and vpon the putting of it foorth againe, and this muſt be done with a garden ſickle or knife well ſharpened, and the cut muſt be well cloſed together and couered ouer, that ſo it may put foorth branches againe: you muſt alſo bow the boughes as ſhall be neceſſarie, and to raiſe ſome higher and pull ſome lower as occaſion ſhall require: cut the endes and ſprouts which put foorth at the toppes of the tree: take away thoſe that growe too high, to the end they may be proportionable in an equall meaſure of growth: for theſe trees eſpecially the citron tree, growing in any great height, and hauing anie great ſtore of boughes, doe neither bring foorth ſo much nor ſo good fruits, as when they are otherwiſe fitted, and freed from their vnneceſſary boughes: and further if need require, to ſet ſome ſtore of poles to hold vp the boughes. If notwithſtanding all the paine and preſeruation ſpoken of before, they fall now and then into miſſlikings and diſeaſes, then you muſt burie at their foot ſome ſheepes hornes: for ſome are of opinion that by theſe they are maintained in ſound eſtate and good plight.

The ſetting of Citron and Orange trees of plants.

And thus much as concerning the ordering of theſe trees, when they be brought out of other countreys; but as for thoſe which we procure to growe and ſpring out of the earth here in this countrey, we muſt know that they growe either of ſhoots, boughs, grafts, or ſeeds: but to ſpeake of theſe particularly, the orange tree groweth not, but verie hardly, either vpon ſhoots or grafts, for hauing a verie hard wood, it hardly taketh roote: It is true that ſome vſe to prepare a plant of it in ſuch maner. They picke and prune from an orange tree bough his ſprigs and ſciences, plant it the ſmall end downward, wrapt in a linnen cloth, hauing within it calues dung that is very newe: and of ſuch plants haue beene ſeene to grow orange trees, growing indeed lower than the other, but hauing a well ſpred and large head. But yet it is better to ſowe it, ſo that it be in a good ſoile, notwithſtanding it be long before it bring foorth fruit, but hee that will helpe that, and cauſe it to haſten to bearing, muſt graft it. The manner of ſowing all theſe ſorts of trees, is, firſt to prepare and manure the ground verie well with horſe dung, about the moneth of May, or elſe with oxe or ſheepes dung, and to mixe therewith ſome wood aſhes, or which were better, ſome cucumber aſhes, then making pits in the ſayd ground of

To ſowe orange trees.

the

the breadth of halfe a foote to put three ſeedes together, and the ſharp end vpward, and the higher part of the ſeede toward the earth: after this they muſt be oft watered with warme water, or with ſheeps milke, for ſo they will grow better and ſooner. And yet forget not before you ſow them to lay them in ſteep in cowes milke that is warme, and if you deſire to haue them ſweet fruite, put to the liquor wherein you ſteepe them, ſome ſugar candy.

You ſhall plant their ſhootes after the ſame manner, in a well husbanded and digd ground, as alſo their boughes and grafts, about mid-May, ſetting the great endes vpward, and filling the pittes with aſhes made of cucumbers. Theſe bring foorth fruite, and the middle part of the apple will be ſweet, if the body of the tree be pearced with a pearcer in the moneth of February, and that there be made therein an oblique and ſloping hole, which muſt not go through, and from out of this the ſap is let diſtill, vntill ſuch time as the apples come to be formed, and then you muſt ſtop vp the ſaid hole with potters clay or mortar: or elſe giue a ſlit in the thickeſt branch of the tree, and in the place where you haue giuen the ſlit, make a hollowneſſe of the depth of a good foote, which you ſhall fill with hony and ſtop vp with mortar for feare of raine, and of the heate of the ſunne: when as the tree hath drunke in all the hony, you ſhall put in more, and water the roote with vrine. In the ende you ſhall cut off all the little ſhootes which ſhall put forth of the tree, letting thoſe alone which ſhall grow vpon the ſlit branch.

At the ſame time Orange-trees may be grafted chiefly vpon the pome-Adam-tree, for vpon this they thriue maruellouſly (eſpecially the orange-tree) both in goodnes, greatnes, beauty, and thickenes of ſuch fruites as they bring foorth, in reſpect and compariſon of thoſe which they bring foorth when they are grafted one vpon another, that is to ſaie, The orange vpon the citron: or, The citron vpon the orange-tree: they may be grafted likewiſe vpon themſelues as the citron tree vpon the citron tree: and ſometimes vpon the pomegranate, peare, apple, and mulberrie-tree, but ſeldome betwixt the barke and the wood, but vpon the head of the trunk or body of the tree, cut off neere vnto the roote. In the grafting of them, you muſt make choice of the faireſt grafts which may be found, as to graft a good citron-tree vpon a better: the limon grafted vpon the citron doth beare fairer fruite, than the citron grafted vpon the limon: becauſe the citron-tree is a great deale more ſappie and full of iuice for to make nouriſhment of than the limon-tree: citrons and limons grafted vpon an orange-tree, doe beare more fruit than vpon their owne ſtumpe and body, and are not ſo ſubiect vnto the colde, becauſe they inioy and participate ſo largely of the orange-tree his properties and qualities, which conſiſting of a hard wood without ſap, doth reſiſt the

To graft orange grafts.

cold

cold a great deale the more. The chiefe way to graft them is by cleauing the ſtocke, and then it muſt be done in Aprill or in March: or by way of crowning, and that muſt be done in May: or by cutting a round hole in the barke of the tree, and this muſt be done in Iuly: when they be grafted into the barke of the tree, you muſt cut away whatſoeuer is ſuperfluous or more than needeth of buds or ſprouts which are not grafted, and withal take away all the ſhoots which grow thereupon afterward. When they are planted, you ſhall not ſuffer any weedes to grow there about them, except it be the gourd, where-

Gourds a friend vnto the citron.

of they are refreſhed if it grow neere vnto them, as being much ſuccoured by them and protected from the cold, as alſo for that the aſhes thereof ſowen and caſt about the roots of citrons, do make them more faire and fruitfull: and ſeeing that the citron-tree is verie fruitfull, and beareth a heauy fruit, after ſuch time as it hath brought foorth his fruit, you muſt gather the greater part and leaue but a few remaining, and ſo the remainder will prooue very faire ones and a great deale the better.

The orange-tree will neuer freeze, nor die with a cold wind, nor yet with the froſt if it be grafted vpon hollie, being an approoued thing: but then indeed the fruit will not be ſo naturall as that of the others.

To keepe citrons &c. long.

Citrons, oranges, limons and Syrian citrons, muſt be gatherd in the night with their leaues in the change of the moon, not before they be ripe, but when the orange is of a golden colour all ouer, if you purpoſe to keepe them long: and you muſt not tarrie till they be become pale before you gather them. You may keep them freſh and vncorrupt all the yeere, if you hide them in heapes of barley or millet: or elſe if you annoint them ouer with plaiſter well tempered; or if you cloſe them vp in veſſels euery one by it ſelfe. You muſt not in any caſe lay citrons neere vnto hot bread, for it would make them rot.

Oranges of a mixt nature.

To haue oranges of a mixt nature, and as it were halfe oranges, halfe citrons, you muſt about the beginning of March, cut a ſcience or branch of the citron-tree whiles it is yet yoong, of the thickeneſſe of three fingers, and plant the ſame in a conuenient time, giuing it all his orders and beſt helpes of husbanding: at the ende of two yeeres or thereabout when it is well taken, and betwixt March and Aprill you ſhall ſow it of a finger within the earth, and cloſing the cut faſt, you ſhall graft by way of cleft, a graft of a yoong orange-tree thereupon, as of ſome two yeeres olde, proportionable and futable vnto the citron-tree in thickneſſe: afterward you ſhall rub and annoint the ſaide cut, and chaſe or cleft for the receit of the graft, with the root of the herbe called Aron: and you ſhall couer it well with a good cappe, after the manner of other grafres, putting therewithall vnto the foote thereof well rotted dung or the aſhes of gourdes: after that you ſhall lay it

about

about with good earth, a reasonable height, and vnderprop it till such time as it shall grow great and strong : but know that the graft must be taken of that side of the orange-tree which standeth towardes the East, and it must be done in the increase of the moone and day : for so it will prosper more effectually.

Red citrons.

The citron will be red and sweete, if it be grafted vpon a mulberrie-tree, and will grow in such forme and after such manner as a man will haue it, if before it be growen to his bignes any way it be closed vp in a frame or mould cut after the shape you would haue it of, that so it may grow foorth his iust quantitie therein. By the same meanes, if it be put into a vessell of earth or glasse, before it be fully growen, it will beare the fashion of the vessell, and become as great as the vessell; but in the meane time to let it haue aire, you must make some small holes in the vessell.

Citrons of what fashion you will.

The difference betwixt orange citron, and limon trees.

The fruites of these trees are alike differing, both in colour, disposition, taste, and vse : for oranges haue a more yellow and golden rinde, a sowre or sweete taste, or both sower and sweete together, being round as an apple, and fitter for the kitchin then for medicine. The limon hath a longer shape, a paler rinde, a sower taste, and is good for the kitchin, and in Physicke, to coole, cut, and penetrate. The citron is long after the fashion of an egge : the rinde thicke, yellow without, sowre, good for cordiall and preseruatiue medicines. Syrian citrons are twise so great as limons, being fashioned like cucumbers, and the rinde an inch thicke.

The leaues of the citron-tree.

The iuice, seed and rinde of citron trees.

The leaues of the citron-tree doe cause a good smell amongst cloathes, and keepe them from the fretting of moathes. The rinde, iuice, and seede of citrons, are all of them verie soueraine against all manner of poyson and danger of the plague : as is also that of the limon. And for this cause there may a whole citron and limon be boyled in rose-water and sugar, vntill such time as all be consumed away to the iuice : and after to vse euerie morning to the quantitie of one or two spoonefuls of this decoction in the time of the plague. The rinde and iuice of citrons doe procure a sweete breath : the rinde preserued heateth the stomacke, and helpeth digestion. The iuice pressed from the rinde of an orange is quickly set on fire : it pearceth also through his great subtilnes through the glasse, euen into the wine that is contained therein. The iuice of limons killeth scabs, itch freckles; and taketh away the spots of inke out of cloath : the same distilled through a lembecke, maketh womens countenances smooth and beautifull: taketh away all filthines from all the parts of the bodie : being giuen to children to drinke, it killeth the wormes which are in their bodies. If one bring the limon neere vnto the fire, the thinne iuice that will come foorth, doth cleanse the faces of yoong girles, and taketh away red pimples in the same, as also other manner of spots like vnto them.

A sweete breath.

Itch

Redues of the face.

Likewiſe the iuice of limons diſtilled in a limbecke, beſides that it helpeth and poliſheth the countenances of women, is furthermore good to take away out of the face & other parts of the body, all white ſpots, warts, and other ſuch like things. The iuice of a limon is of ſuch vertue, that if you ſtraine it twiſe or thriſe, and then waſh in it whole pearles, and afterward ſteepe them in it, and after lay them in the ſunne, within fiue or ſix daies they wil become ſo ſoft as hony, ſo that you may make any ſhape with them that you will. Furthermore, the iuice of limons is ſo corraſiue, as that if you ſteepe it in a piece of gold ſome certaine howres, you ſhall find it diminiſhed and become light: and aſmuch will fall out if you ſticke a piece of gold in a limon. See more of this matter in the third Booke.

Water.

To ſoften pearles.

To diminiſh gold.

The flowres of oranges are preſerued with hony or ſugar, and thoſe are very cordiall: therewith likewiſe is made a very pretious water of rare and ſingular ſweetneſſe, which is called the water of Naſe.

The water of Naſe.

Pomegranate-trees craue a hot or temperate aire, for they cannot beare fruite in a cold countrie, and albeit their fruite be of one of theſe three taſtes, as ſweete, ſowre, or both ſweete and ſowre, notwithſtanding all manner of pomegranates do craue one and the ſame aire, ground, and manner of ordering. They maintaine themſelues in good ſtate in all manner of ground, whether it be fat or ſtrong, or grauellie, or clayie, or ſandy, foreſeene that the ſand be ſomwhat groſſe & moiſt. They refuſe not the ſituation of any ground, be it hill, valley or plain, yea, they refuſe not to grow well in ſtony, dry, and rough grounds: for a little nouriſhment doth content them: and for theſe cauſes they need not to be ſo carefully husbanded as the former, and the rather becauſe they will grow if they be but prickt downe, and do well beare either to be planted or grafted: further if you will take the paines to picke and prune them whiles they are yoong and in due time, the fruite will be a great deale the bigger, and of a better faſhion, but it muſt be looked to, that they be planted vpon the South ſunne, but neuer vpon the eaſt, nor yet vpon the weſt, for this quarter doth moſt hurte them, as well as the vine. Note notwithſtanding, that the yoong branches which you ſhall cut off from them, muſt be taken when the tree hath put foorth his buds, and not before (which is contrary to the branches of other trees) as alſo that the ſciences with barke and all be of the thickneſſe of the helue of a knife. And before that you plant them you muſt make ſure and cloſe both endes of them, and annoint them with ſwines dung, which is more familiar vnto them than any other, and then lay them ouerthwart or croſſe in the earth. They delight in a ground that is not leane nor moiſt, but indifferent fat: and they grow the more eaſily and faire, if there be planted and ſet by them the ſea onion, or eſpeciallie ſome mulberrie-tree. The time to plant them, is from after March, vntill May: betwixt the ſame times it is good to

graft

graft them vpon themselues, but to better succesſe vpon the mirtle-tree, wherein they delight greatly. The citron-tree, the willow, and the mulberne-tree are not so good: howsoeuer that sometimes they may be grafted vpon them.

The maner of grafting them is to put into the body of the tree the graft of the pomegranate-tree, so soone as euer it shall be cut off from it, and after to powre vpon it some oile, and to plaster and couer it with earth, and as concerning the graft it must be taken from the pomegranate tree after it hath budded, after the same manner that we haue said of the branches. Furthermore they craue to be often watred when the sunne is in Libra. *To graft pomegranets.*

Pomegranate-trees by mighty rains, excessiue dews, and great fogs, do easilie loose their flowres and fruites before it be ripe: but to preuent this mischiefe, they would be planted neere vnto some wall, and haue their boughes bowed downward, to the end they may not so easily take wet, which is so noisome vnto them. They endure clefts and chaps in their bodies, without any danger, and therein they are like vnto the fig-tree and vine. If the pomegranate-tree bring forth sowre or scarce sweet fruit, you must water the roots thereof with swines dung, and mans dung, mixt with old vrine: or temper a little Beniamine with wine, and therewith to bathe and wash the top of the tree, or to spread vpon the rootes asies dung, and after to couer them and water them with mans vrine. *Pomegranat trees loosing their flowers.* *Sweete pomegranats.*

The seeds of the pomegranate will be white, if the roots of the tree be compassed about with potters and fullers clay, and one fourth part of plaister, for the space of three yeeres: the barren pomegranate-tree will become fruitfull, if the body thereof be often washed with ashes and lees: the pomegranates will become red if the roots of the pomegranate-trees be often watered with lee, or couered with the ashes of acornes. *White pomegranate seeds.* *A fruitfull pomegranate tree.* *Red pomegranats.*

The pomegranate will grow grosse and thicke, if you put much swines dung at the foote of the tree: againe, looke how much more of this dung you put there, by so much the more sweet will the great sowre ones become: pomegranates will haue no seedes, if you take away the greater part of the sap of the boughes of the tree, and laie them in the ground all shiuered, and after that they haue take, cut that part of the plant which spreadeth furthest, and hath alreadie put foorth his buds: pomegranate-trees will be fruitfull if you stampe purslaine and spurge together, and therewith annoint the bodie of the tree. *Thick pomegranats.* *Pomegranats without anie kirnels.*

Pomegranaates will not breake nor open vpon the tree, if there be three stones put at the roote of the tree when it is planted: but and if the tree be alreadie planted, then neere vnto the tree rootes you must plant the sea onion: but indeed all these helpes and such other *Open pomegranats.*

do but little preuaile, and therefore it were better to plant or graft them onely which will not bring foorth a fruit that will breake when it commeth to ripenesse. The pomegranate tree will not fall his flowers, if the roots be watered euery yeere thrise with olde vrine mixt with as much water.

Pomegranate flowers.

The way to keepe pomegranats.

Pomegranats will keepe and continue, if you dip them in faire warme water, and take them out againe by and by: or else if you put them apart in dry sand, or in a heape of corne in the shadow, so long as till they become wrinkled: but yet better, if when they be ripe, and yet hanging vpon the tree, you writhe the small bough a little and the start by which the pomegranate hangeth: or else lay pomegranates in Fullers clay tempered with water, and after dry them in the Sunne. It is good likewise to lay them in dust, or scrapings, or sawings of the poplar tree, the holme tree, or the oake, in a new earthen pot, and within it to set them in order in manner of a bed, and then afterward to couer the pot and lute it very well. But whatsoeuer way you take the principall end must be to keepe oranges in a colde and dry place, and that they be gathered with their stalkes, as also with their little branches, if possibly it may be done without hurting the tree, for this helpeth much to keepe them long. They must likewise be gathered in the olde of the Moone, so that they be then ripe and very drie, and not being wet from aboue, and then after that to keepe them a day or two in the Sunne, their flowers lying downeward: then after that to close them vp in a pot very well stopt, and well pitcht or seared, that the aire may not get in. Some doe couer them and worke them ouer very thicke with potters earth very well beaten and tempered, and when it is dry, then they hang them in a cold place, and when they will eat them, they steepe them in water, and take away the earth. Others doe wrap euery one of them alone by it selfe in hay or in straw within cases. The boughes of pomegranate trees do driue away venomous beasts, and this was the cause why men in ancient time were woont to put the boughes of pomegranate trees both vnder and aboue them in their beds.

The Plane tree.

The Plane tree is more commended for the beautie of his leaues and shadow, then for his fruit, it groweth of shootes and sciences drawen and taken from the tree, and planted in a very moist ground, and such as is neere vnto some fountaine or riuer: and yet besides this, it delighteth to be watered often times with neat wine, and sometimes with mens vrine to helpe it to shoot vp and grow high, and to put foorth large and ample branches, and long leaues for to make the better shade: in this countrey we cannot see many faire ones. I remember that I haue seene one at Basill in Saint Peters place, betwixt the height of fifteene or sixteene cubits, vnder the shield and shadow whereof, the people betooke themselues for their refreshment, during the

the time of great and scorching heat. Some make dishes of plane tree wood, to assuage paine & wringings in the belly, being applied thereunto. You must beware of the dust which hangeth vpon the leaues, for being taken into the body by drawing in of your breath, it hurteth the rough arterie and voice: and in like manner the sight and hearing, if it fall into the eyes or eares.

The nettle tree is well enough knowen in Languedoc and Prouence, especially in a borough neere vnto Mompelier called Bontonnet, it groweth in a fat ground well manured and toiled, open to the South or East sunne: the wood is good to make flutes, corners, and other instruments of musicke: it is good also to make handles for knives and swordes. The fruit is very much desired at the tables of great states for his great sweetnesse and most pleasant and delightsome smell, which they finde in it that doe eat or smell to it: likewise some doe presse a wine out of this fruit being stamped and beaten, which is very sweet, and seemeth like vnto other new pressed sweet wines, but it lasteth not aboue ten or twelue dayes. *The Lote or Nettle tree.*

The mastick tree delighteth in moist places, and is planted after the first day of Februarie: it beareth fruit thrise a yeere. The leaues, barke, and wood in decoctions haue power to restraine, strengthen and comfort. And this is the cause why it is vsed to make toothpickes thereof. *The mastick tree.*

The turpentine tree delighteth in a low and moist ground, and withall in a hot and warme aire open vpon the sun. The leaues, barke and wood, haue the like vertue that the mastick tree. *The turpentine tree.*

The Iuiube tree and others aswel forraine as growing in our owne countries, are further to be seene and read of in the third booke. *The iuiube tree.*

The fiue and fiftieth Chapter.

Of the two particular gardens situate or lying at the end of the kitchin garden, and of the garden of pleasure.

THe kitchin garden and the other of pleasure being of the largenesse aboue declared may haue reserued out of them, two or three akers, for the profit of the lord of the farme, as for madder, woad, tasell, lyne and hempe. And we may also adde vnto these, saffron, albeit that all these things, euen as well as pulse, if it be a free and kind ground, do well deserue to haue euerie one his seuerall field by it selfe, and to be tilled and husbanded after the maner of corne and pulse. *Madder.*

For madder therefore, it is meet that there should be appointed out foure or fiue akers of ground in a place by it selfe, which must not lie far from the water, but in a free and not in a strong mould, and yet

not too light : which hath had his three or fowre arders with the plough, or (as indeede is beſt) digged and ſifted : notwithſtanding that the ſifting of it be a longer piece of worke and of greater coſt, it being vſed to be caſt and tilled with thicker raiſings of the earth, and ſmaller clouds than is woont to be in the caſting or digging of a newe vineyard. For this plant hath his proper and particular ſeaſons to be dreſſed and planted in, aſwell as the vine : but in this they differ very manifeſtly, that the one is an herbe and the other a ſhrub, and as it were a knot of many trees : the one dieth yeerely (and there is nothing of it in requeſt but the roots for to make good colors of) but the other laſteth and continueth at the leaſt twelue yeeres in good liking and liueliehood : of which, the firſt ſixe is for growth, and a little for bringing foorth of fruit, and the latter ſix, for whole, ample, and intire profit, the danger of haile, waſhing away of the grapes, when the vines be in flowre by much raine and froſt, being excepted; vnto which in like manner madder is ſubiect, and oftentimes more than the vine becauſe of his tenderneſſe. This prehemencie it hath, that the vine being frozen, cannot be recouered, but madder may be either ſet or ſowen againe, as alſo woad, the ſpeciall husbandrie of ſuch as dwell in Prouence, and the wealth and commodity of Diers of cloth or wool, with what colour ſoeuer it be. It may be ſowen or planted ; but indeed being ſowen it yeeldeth ſcarce at any time any great ſtore of increaſe: but if you will ſowe it then beſtow the like quantitie of the ſeed thereof vpon an aker as you are wont to doe of hempe, and that in the moneth of March, vpon the tops of hils well battild and manured: thus the ſeed being caſt into the grounde, and the ſame well incorporated with harrowes or rakes, there is no neede of any other labour but keeping of it cleane from hurtfull weedes, vntill ſuch time as the ſaid madder be readie to be gathered in September for to take the ſeed of it.

The difference betwixt the vine and the madder.

The choiſe of the rootes which you intend to ſet and plant muſt be out of the countrie of high Prouence, being more Eaſterly and coole, and as for the ſight & taſte of them, they muſt be more yellow, thick & ſtringed, comming neere vnto the colour of the true Prouence orange tree, very bitter in taſte, and in ſeething (for the triall of it) more red and full of iuice, that is to ſay, not ſo drie and withered. The time to plant is from March be ended vnto mid-May, and as for the beſt and moſt profite to be expected from it, it is not to be attained or come by, till after the two firſt yeeres, after the firſt planting of it: and withall, you muſt make a ſure defence about your ground againſt the comming in of cattell : for there can no greater hurt happen vnto it: In Italy they vſe not to take vp the rootes of madder, till after they haue continued ten yeeres in the ground, either ſet or ſowen: but they cut the boughes of it euery yeere to haue the ſeede, and after they co-

uer

uer the rootes one after another, laying two fingers depth of earth vpon euery one, the measure being taken from his chiefe and principall, to the end the frost may not hurt them, and that so also the roots may grow the thicker: after the eight or tenth yeere they pull vp the rootes, drying them in the sunne, and afterward when they woulde grinde or presse them, they do further drie them in a great ouen made for the purpose, and so presse them vnder a millstone, and this is called the fine madder. Thus they haue found by experience, that looke how much the longer they delay the gathering of the roote, so much the more madder haue they euery yeere, and that fine, which is more then if they should take vp the rootes euerie yeere. You may both sow it and plant it in the same place, where you haue taken it vp, or which is better, sow that place for the next two or three yeeres following with wheate, because it will beare verie faire and great store thereof: in asmuch as the field wherein madder hath beene sowne, is made much fatter and better thereby, as whereof it may be said this ground hath rested it selfe, seeing the roote hath done nothing but brought forth boughes, for seed, and that the leaues falling from them, doe asmuch feede the ground as the ground doth the roots and boughes.

But Autumne being come, and when you see that the herbe beginneth to looke yellow, and to loose his naturall colour, you shall drawe it out or pull it vp with the spade or pickaxe, and shall strip the roots from their leaues, which you shall cast vpon small heapes, to dry for the space of three or fower daies, if the weather be such as it should, or else sixe or eight daies in a rainy and moist weather: then you shall cause them to be taken vp, dusted and scraped, that so there may haue none of their hairie strings at them: and when they are thus made cleane, you shall keepe them whole, or ground into powder either grosse and great or more fine and small, either for your own vse or for the saile.

Madder is in this one thing much to be maruelled at, in that it coloureth his vrine that shall but hold it in his hands: and which is more it maketh the bones and flesh of those cattell red, which haue beene fed with it some certaine time: some say that the powder of it is so penetratiue, and so taketh vp the nostrils, as that it enuenometh and killeth many in a few yeeres. The decoction procureth vrine and the termes of women, and coloureth egs red that shall be boyled with it. The leaues because they are rough and stiffe are good to scower braſſe vessell. *To colour the vrine.* *To procure the termes.*

The sixe and fiftith Chapter.

Of woad.

AS concerning woad it is tilled in a fielde and requireth much labour, euen as the nauets or turneps, though there be no part of it

in requeſt but the vppermoſt, and that which is furtheſt off from flowers & ſtalkes: it doth not feare froſt, raine or extraordinary cold: Indeed it doth not craue any long reſted fat ground, but a ſtrong ground and ſuch as may be ſaide to be in good plight, rather then an indifferent and light: it groweth better alſo in grounds, which haue laid fallow three or fower yeeres before, or which haue been medow ground two yeers before, then in grounds which hane bin well tilled; which is cleane contrarie vnto madder, which craueth as much helpe, as the ground appointed for wheat or vines: yea and it craueth the reſt of ſoile and ſet from one yeere to one: for otherwiſe the rootes when they are ſet doe degenerate oftentimes and miſcarrie, looſing their force and goodnes. And whereas madder doth fat the ground, woad doth make it leane, and therefore it muſt not be ſowen in a leane ground, where it euermore groweth but little, and where it prooueth almoſt nothing woorth; but rather in a ground that is well mannured before it be ſowen, as alſo renewed with dung at ſuch time, as it is forthwith to be ſowen. Being ſowen of ſeed it muſt be diligẽtly harrowed, to the end it may be well couered & incorporate with the earth, and when the plantes haue put foorth their leaues the height of two fingers, you muſt dig it about mid-Aprill or ſomewhat later, according as the time hath beene faire or rainie: then ſhortly afterward you muſt gather the leaues: and they being gathered you muſt dig the feete of the ſaid rootes ſo left voide of their leaues: and this muſt be continued euerie moneth, that is to ſay, Iune, Iuly, Auguſt, and September: in ſuch ſort that euen as the leaues are gathered from foote to foote fiue times, ſo they muſt be digd and the earth caſt as oft, and that ſo ſoone as the gathering of the leaues is paſt: and this labour of digging is ordinarily to be ſeuen times gone ouer, that is to ſay, the fiue times now ſpoken of, and the two firſt, which are before any gathering of the leaues doe fall. The manner of gathering them is in this ſort: when the leaues begin to be coloured about the edges and not in the middeſt, you muſt take them from plant to plant in your hand and breake them off in ſuch manner from the roote, as that it may ſeeme and ſhew as though one had cut them away with a hooke, and after that to lay them in order in the ſhadow, that ſo the ſunne may not harme or iniurie them.

To make woade. The manner of making woade. You muſt put the ſaid leaues vnder a milſtone drawne about with a horſe, and turning round within a veſſell ſomewhat more compaſſed then the gate thereof, when it rowleth and turneth about, by which turning about of the ſtone, all that part of ſtuffe within the veſſell being bruſed, the horſe is cauſed to ſtaie, and the ſtuffe or leaues turned ouer which haue now alreadie been thus far forward ground vpon the one ſide, that ſo the iuice thereby preſſed out, may incline vnto that part in the middeſt which is

loweſt

loweſt, where it being let out, and the floore or bottome of the veſſell well dried, the turned leaues are put againe vnder the milſtone to grinde the other ſide, which once done, they are to be made vp in round pellets or bals, euery one waighing twenty or fowre and twentie ounces, and theſe being dried either in the ſunne or in the ouen if it be rainy weather, they are laid vp in ſome garner, vnto the eleuenth of Nouember, at which time they are to be ground for the laſt and altogether into powder, and laid vpon heapes: and when vpon this laying together vpon heapes it ſhall begin to take heate, it muſt be turned, and in turning watered, vntil it be ſufficiently moiſtned: for as too much water drowneth it, ſo too much heate in the heapes doth burne it: thereupon you muſt pile it vpon heapes not high but long ones, and ſtirre it euerie ſecond day, ſo long as till it become cold, and yet after this to put it abroad euery fourth or ſixth day, while it bee throughly cooled indeed. And this worke muſt be very carefully performed, for otherwiſe the woade would roaſt it ſelfe, and prooue not any thing worth, which being ſo trimmed and orde red as it ſhoulde, it is left in ſome cold and paued place, vntill the time of the ſelling of it, and looke how much the longer it lieth in heapes in this caſe, by ſo much it becommeth the better & finer. The country men of *Tholoſe*, in whoſe countrie there groweth great ſtore of woade, doe not grind their woade balles into powder, but gather it together by great veſſels full, and put vnder the milſtone to preſſe out the wateriſh parts of it, & then they make vp the remaining ſubſtance into lumps like loaues, which they drie and rot afterward, by laying them in the great heat of the ſunne in ſommer time, and then they caſt theſe lumps into their fats, where they put their wooll to be died, a blew, blacke, or other colour, as it beſt pleaſeth the Diers. The leaues thereof made into a plaiſter, do reſolue impoſtumes, and heale wounds new made, they ſtay fluxes of bloud, heale the wilde fire, and the vlcers which runne ouer the whole body.

The ſeuen and fiftieth Chapter.

Of the taſell.

THe taſell (called alſo *Venus* her bathing tub, becauſe it keepeth ſom drops of water (being by nature as all the other thiſtles are, hot and drie) in the lower part of the leaues, cloſe by the ſtalks, to refreſh and water it ſelfe withall) ſerueth greatly (in reſpect of his head) for the vſe of cloth-workers, both to lay the wooll of their new clothes ſo much as is faſt, as alſo to draw foorth ſo much as lieth looſe out of order amongſt the reſt: and it is as ſeruiceable or more vnto cap-makers, after that the cap is ſpunne, wouen, fulled, and ſcoured with ſope, walkers earth, or other ſcouring earth: Now he that will

reape

reape profite by this herbe, must make choise of a good fat grounde, well manured and tilled with two, three, or fowre arders, and well harrowed: and then afterward sowe it with the best seede that possiblie may be found, and that very thicke, and when it hath shot out of the earth as in the beginning of May, then to make it cleane and weede it with the hand, and in Iune and Iuly to digge it, if need be, in the end of September you must gather the heads that haue flowred the first yeere, leauing the rest to grow for to be gathered the yeere following, at such time as they shall be in flowre. The heads cut off, the plants may be planted anew in a well tilled ground, putting all the roote into holes, from one to another (which is all one with the ordering of the radish) and trampling the ground vpon them very orderly and duely: and furthermore to digge them when they begin to pricke and put foorth branches, in March, Aprill, and May: and to cut them which are cankered or rotten and so vnprofitable; that so the iuice of the earth may be fed vpon by those onely which are good and seruiceable. And whereas at the time of their flowring they begin to flowre on high on the head, and so downward till the whole head be flowred, the flowre being once fallen you must cut off the head either euening or morning giuing halfe a foote of stalke thereunto. Furthermore you must not forget, that they must be set or sowen in furrowes, that so water may haue an orderly course to fall to the foot of them, and giue them a continuall refreshment, and not to sowe them in anie other place but such as is reasonably watrie: for too much moisture maketh the thistle or the head thereof (which is the thing of most importance) more lowe and short, and of lesse commodiousnesse. You must not gather or binde them vp in bundels, but in a drie season, towards the moneth of October at the furthest, and not any sooner or earlier, than the latter ende of September. Some gathering it doe leaue it at the barne to drie in some place by it selfe, because it is subiect vnto fleas or lice, and other small vermine, which causeth the small foote that should hold vp the head to fall downe: others do put ten or twelue of them in little faggots together, and so hang them vp standing one a prettie deale from the other in the shade or winde, and not in the sun, or in any moist place. Some drie them in the South sunne, turning them twise or thrise, and after hanging them by paires in order vpon poles.

The tasell is to be commended in this point, for that in the midst of the head thereof, after it is well dried, there is found a little worme, which being hung about the necke or applied vnto the wrests, doth heale the feauer quartaine: it asswageth likewise the great ache of impostumes, which grow about the nailes being applied thereunto.

The

The eight and fiftieth Chapter.

Of Saffron.

THe beſt Farmers, and ſuch as are moſt cunning in the ordering of plants, doe make verie much and highly eſteeme of the ſaffron which is called baſtard ſaffron, and of the common people parrat-ſeed, being the ſame that old writers call *Carthamus*: the plant is of no vſe, the ſeed excepted, which purgeth flegmaticke humours, or elſe feedeth parrats, which are dainty and fine mouthed. This plant when it is growen vp being well husbanded and ordered, beareth certaine little thicke heads, like the heads of garleeke, and in the midſt of it a flower which one would ſay were ſaffron. This good it doth, namely, that it enricheth and maketh fat the ground where it groweth: likewiſe it craueth no great food or maintenance, neither leaueth it any root in the earth after it is gathered that may put foorth or take any acknowledgement of, or doe any harme vnto the ſoile wherein it grew. There is euerie way as much profit in tilling of this herbe, as there is in aniſe or fennell: when all is ſayd, a good Farmer will make profit of euery thing, and there is not (as we ſay) ſo much as the garleeke and onion, which he will not raiſe gaine of, by ſelling them at faires, moſt fitting for their time and ſeaſon, and ſo helpe himſelfe thereof and fill his purſe with money.

The ordinarie ſaffron, ſeruing for ſauces, painting and making of colours, is a thing of toile and of profit, as may be learned and eaſily vnderſtood by the inhabitants of *Turraine*, *Prouence*, and *Portingall*, which grow the ſame exceeding abundantly: It is planted like cammomill in the ſpring, vpon heads, foure fingers off one from another: but it muſt be in a free and well battild ground, not verie fat, nor very leane, but open to the ſunne: it muſt be well troden downe with the feet, when it ſhall let fall his flower: but when it buddeth and putteth foorth, it muſt be left alone to natures worke. At the time of the gathering of it you muſt haue linnen cloathes to draw it out of his bell euening and morning: and after drie it well in the ſhadow of the ſunne, and couer it with cleane linnens, make it cleane, and taking away his white, purge it, that ſo it may be free from all filth, and fit to be kept in a drie place well couered, or in ſome veſſell cloſe ſtopt: and leauing in the earth the onions or heads of the ſaffron, with a good quantitie of grapes, or of the droſſe thereof as it commeth from the preſſe put vnto them, you ſhall take them vp in the moneth of March when they haue brought foorth fruit three yeeres, and drie them in the Sunne, keeping them after in ſome place that is not moiſt, that ſo you may plant them againe in ſome other place & ground that is well tilled, as hath already beene deliuered at large in the fiue and thirtieth

Chapter.

Chapter. Some are of iudgement that it is naught for a man to vse saffron much, and that it is a speciall venome vnto the heart: but howsoeuer this be true, the profit of it is great: and therefore commodious and requisite for the Farmer, which would not that his ground should be vnprofitable vnto him. See more aboue in the place aforenamed concerning Saffron.

Saffron a speciall venome of the heart.

The nine and fiftieth Chapter.

A briefe and short reuiew concerning pulse.

I Will say nothing of the nauet, nor of the two kindes of turneps, of which, the great and round one is for them that dwell in *Limosin*, *Aruernia*, and *Prouence*; and the long one (which they call radish) for Fraunce and other places: as in like manner I will make no mention of mustard seed, millet, pannicke and cummin; neither yet of great wild tares, lupines, lentils and fenugreeke: which notwithstanding are all pulse and seed of profit and commoditie for the housholde, as hauing reserued them for the pulse-garden, planted at the end of the kitchen-garden: I will content my selfe in this place to admonish the good Farmer, that for the bringing of the ground into some kinde of occupation during the time of his rest, and after that it hath beene imploied in bringing foorth better corne, it will not be amisse to sowe therein either nauets or turneps, foreseene that the seed, after the pulling vp of the plants, be so well and thorowlie gathered and carried away, as that the ground may be quite rid and voide of the same, for otherwise in time there would be nothing to be found amongst this seed, but wild coleworts, danewort, and other noisome weeds: and in deed pulse doth make as much for good husbandrie, as the corne that is good for to make bread: seeing pottage is in continuall request for the householde, in what house soeuer it be. Some make a craft of making bread of millet, as is to be seene in some places of *Gascoine*, but it is not but when great necessitie drieth them to it. But howsoeuer it be, beanes, peason, ciches, and fetches, are not of lesse request or inferior in taste vnto great wild tare, lupines, cummin, fenugreeke and lentils: and for the proofe hereof I will call to witnesse the people of *Aruernia*, *Lymosin*, *Sauoie*, and *Dauphinie*, for the tilling whereof (not to speake further in this place of any other thing whatsoeuer, that may be as it were superfluous) we will referre you to learne the wholesum in the treatise of tilling of seeds and pulse in arable grounds.

The sixtieth Chapter.

Of remedying of accidents that may happen vnto herbes.

Herbes

HErbes either ſowen or planted in the gardens before ſpoken of, are not hurt onely by haile, lightning, thunder, froſts, fogs, blaſtings and other harmes hapning by the courſes of ſeaſons, but alſo they are annoied, by reaſon of waſte and deſtruction brought vpon them by little beaſtes, as graſhoppers, weazles, caterpillers, houſe and field rats, cats, moules, piſmires, flies, gnats, bats, wall-lice, fleas, greene-flies, horſe-leaches, frogs, ſnailes, adders and ſuch like, which miſchiefes you muſt be very carefull to meete withall, that ſo you may not looſe your labour about your garden, and be fruſtrated both of the profit and pleaſure that might riſe and come thereby. And to ſpeake generally of the preuenting of all theſe inconueniences, it is good, according to the counſell of *Columella*, to ſteepe the ſeedes for a certaine time in the iuice of trick-madame, or to mingle with the ſayd ſeede ſome ſoote, or elſe to water them with water wherein ſoote hath beene tempered: but it is better to ſpeake of theſe things particularly. *Hurtfull beaſts.*

Generally againſt all ſuch beaſts as do hurt gardens, it is good to burie in ſuch place of the garden as where you thinke theſe beaſts doe moſt abound and keepe, the paunch of a ſheepe full of dung as it commeth out of the ſheepes belly, and to couer it with a little earth, and within two dayes you ſhall finde all theſe beaſts gathered together into this place: before you haue done thus twiſe or thriſe, you ſhall be prouided of the means to kill and root out all theſe vermine: know then in a word, what be the neceſſarie remedies for the auoiding of ſuch accidents.

Againſt haile, ancient men were wont to ſet the whole compaſſe of their ground about with white wilde vine, or elſe to faſten vnto the top of a high poſt, an owle hauing her wings ſpred. *Againſt haile.*

The lightnings and thundring will do no harme, if there be buried in the midſt of the garden a kinde of toad called a hedge toad, cloſed vp in a pot of earth. Others doe hang in the midſt of the garden, or at the foure corners thereof the feathers of an eagle, or the skin of a ſeale. Others plant many bay trees round about the garden. It is true that to breake or diſſolue the thunder accompanied with a great thick cloud threatning haile, there is nothing better than to ring the belles, as is vſed to be done in hot countries, and to ſend foorth the roaring ſounds of the canons, as is wont to be done at ſea: or elſe to ſet on fire ſome heaps of weeds or ſtinking and rotten ſeeds. *Againſt lightning.* *A hedge toad.*

There is nothing more hurtfull or dangerous for herbs than froſt, which commeth when ſnow and ice are thawing. And for to preſerue your herbs from this inconuenience of colde, you muſt ſpread all ouer the ground great ſtore of ſtrawe, and aſhes withall aboue that: for by this meanes the heat of the earth will be preſerued, and the froſt hin- *Froſt.*

dred

dred that it cannot enter.

Against mists and fogs. If you conceiue that your herbs are like to be hurt by mists or fogs, you must get together in diuers places of your gardens diuers heapes of tender twigs and strawe, or of weedes and shrubs pulled vp in the same place, and after to set them on fire: for the smoke thereof doth correct and cleere the duskish and cloudie aire.

Blasting. Against blasting, which is a corruption hapning to herbes and trees by some euill constellation, there is nothing better than to burne with the dung, the right horne of an oxe, in such sort, as that there may on euerie side be caused a very great smoake: for this smoke will driue away and resolue the euill quality of the aire which is the carrier of this maligne influence: or else it will be good to plant in diuers places of the gardens, diuers bay-tree-boughes, for the blasting will fall all vpon them.

Against birds. To preserue seeds from being eaten of birds, you must scatter round about your gardens wheate or barly sod in wine, mingled with hellebor: or else, water and steepe the seed in the decoction of cray fishes, boiled in fresh water, assuring your selfe, that looke what groweth of such seeds, will be free from all danger of these fowles: or else water your seed with water and the lee of wine: or else scatter throughout the gardens, some boiled leekes, for so soone as they shall haue swallowed them they will be easily taken vp with your hand. Some put ten cray fishes in a vessell full of water, which they couer and set out in the sun for the space of ten daies, afterward they water the seeds they woulde sowe with this water twise; once before they be sowen, and the other time eight daies after that they are sowen. By this meanes the seedes will not only be kept safe from birds, but also from all other manner of beasts.

Against little beasts. To take away all harme which may come by little beastes, it will be good to drie vpon the skin of a tortoise, all such seeds as you intend to sow in your gardens: or else to plant in diuers places of your gardens some mintes, especially amongst your coolewoorts: or else to sowe amongst your potherbs some cich-pease, or rocket, or to fill the ground of your kitchin garden with goose-dung tempered with salt brine, or else to sow the seeds in the first quarter of the moone.

Against snailes New oile lees, or the soote of the chimney sowen all about in your gardens, is good against snailes.

Against caterpillers. To keepe away caterpillers, you must water your herbes with water wherein haue beene steeped the ashes of the yoong shootes of vines: or perfume your herbs and trees with quicke brimstone. Some steepe the seedes in the lee of fig-tree ashes, and to kill the caterpillers, do cast vpon them the ashes themselues: others like it better to plant a great onion called Squilla, or else to burne toadstooles that grow out of the nut-tree: or else some great store of garlicke without

any

any head, to the end that by the ſtrong ſmell which ſhall riſe thereof, they may die.

Columella maketh mention of a certaine and approoued remedie in this caſe of caterpillers, which is that when they will not be driuen away by other meanes, to procure a woman bare footed, hauing her termes, her boſome open, and haire about her eares to walke, three times about the quarters and alleies of the hedges, or walles of the garden. This done, you ſhall ſee the caterpillers fall vpon the earth, from the herbs & trees bearing fruite, neither more nor leſſe, then & if by ſhaking you beate downe the raine or water from a tree: but in the mean time there muſt be care had that this be not done at ſun riſe, becauſe that then euery thing in the garden would wither & paine away. *Wemens tearmes.*

If you water the fleas or lice with ſtrong vineger, mingled with the iuice of henbaine, wherein the water of hemlock ſhall haue boiled, or with water wherein nigella hath beene ſteeped: or with the decoction of the ſeede of muſtard: they will die by and by. *Againſt fleas or lice.*

Gnats will be killed if you lay rue in ſteepe and ſprinckle the water about the garden: or if you make a perfume of galbanum, or of brimſtone, or of cumin, or of oxe dung. If you would driue awaie flies, make a perfume of coloquintida, or water the place with water where in it hath ſteeped. *Againſt gnats.*

To gather together all the palmar wormes and other like beaſts into one place, to the end you may kil them, you muſt ſpread in the place eſpecially where they a bound, the guts and intrailes of ſome ſheepe newlie killed, the ſame made nothing cleane, but ſtill full of filth and dung: then two daies after you ſhall find them all come together vnto the entrails. *Againſt the palmer worme.*

For to kill weaſels you muſt ſteepe ſal ammoniack and wheat together, and ſow them neere the place where the weaſels haunt, for by this they will either be kild or cauſed to run away if they eat it: Some ſay that if you catch a weaſell and cut off her taile and coddes, and let her goe againe aliue, that afterward there will be no moe ſeene in that place. *Againſt weaſels.*

Ants will flie awaie if you burne thoſe which you take, or if you annoint the barke of the tree which they vſe, with oxegall; or with the decoction of lupines: or elſe if you burne in the garden wilde cucumber: or if one clay ouer with white or red clay the tree where they are: or if there be put at the mouth of their hole ſome organie and brimſtone together. *Againſt ants.*

You ſhall kil wormes, if you perfume their holes with the ſmoke of oxe dung, or if you water them with pure lee. You ſhall make them come out of the ground if you water the place with the decoction of the leaues and ſeede of hempe: or if you ſowe lupines in the ground where you ſee great ſtore of wormes: it is true alſo that you ſhall rid *Againſt wormes.*

your

your grounde of them, if you eare your grounde during the time of great heate, for then you ſhall finde them in great numbers vpon the face and vppermoſt part of the earth, and ſo you may gather them into bowles to giue them to your hens, which thereby will become fat, and lay great ſtore of egges.

Againſt ſnailes. You ſhall kill ſnailes if you ſprinkle them with the new lees of oile, or with the ſoote of the chimney.

Againſt graſſhoppers. Graſhoppers will do no great hurt vnto herbes, if they be watered with water wherein wormewood or leekes, or centaurie hath beene ſtamped: Alſo to kill them you muſt boile bitter lupines, or wilde cucumbers in ſalt brine, and ſprinkle them therewith, or elſe burne a great ſort of graſhoppers in the place from whence you would driue them, for the ſmell of the ſmoke doth kill them: but and if you would baniſh them altogether out of your gardens, you muſt hang vp ſome bats vpon your higheſt trees.

Againſt field rats. You ſhall driue away field rats, if you caſt in the canicular or dogdaies the ſeede of hemlocke into their holes, together with hellebor and barly meale: or elſe if you ſhut the mouthes of their holes with bay-tree leaues, to the end that when they would come foorth they may be forced to take thoſe leaues in their teeth, and ſo by the onely touching of them they are killed, Or if you mingle amongſt their meate ſuch as you know them to be delighed in, quicke-ſiluer, tinne, or burnt lead, blacke hellebor, or the ſcum of iron: or if you make a perfume of the bodies of their kindes: or if you boile beanes in any poiſoned water, and ſo lay the ſaide beanes at the mouthes of their holes, which vpon the ſmell thereof will quickly run vnto them.

Againſt rats and myce. You ſhall alſo kill rats and mice with paſte made of hony, coperas, and ſtamped glaſſe mixt together and laid in places where they haunt moſt.

Againſt moules. Moules will neuer caſt in thoſe gardens where the herbe called *Palma Chriſti* doth grow either of it owne accord, or purpoſely ſowen: likewiſe you ſhall either kill them or driue them away, if you lay at their holes mouthes a walnut filled with chaffe, brimſtone and petroſin, and there ſet it on fire; for by the ſmoake that will come of this nut, the moules will be killed, or elſe run away: or if you lay in diuers furrowes about the garden a ſmall ball of hempſeede, it will be a let to keepe that there come not any into thoſe grounds out of other, and withall will driue away thoſe which are there alreadie. There are three waies to take them: the firſt is to ſtand as it were vpon your watch about ſunne riſe, neere vnto the place where they haue lately caſt vp the earth; for this is ordinarily the verie hower that they caſt in according to their cuſtome, and thus may you throw them verie eaſily out of their holes with a pickaxe or ſpade. The ſecond way is by cauſing water to runne into the hole where they haue newly digged:

ged; for when as they once feele the water they will not ſtay to come foorth and ſaue themſelues vpon ſome green turffe or other, and there you may either take them aliue or kill them. The third way: take a liue one in March, when they are a bucking, and put the ſame into a verie deepe and hollow baſon at night after ſunne ſet: burie the ſaid baſon in the earth vp to the brims, that ſo the moules may eaſily tumble into it, when they heare the captiue crie in the night time; for all ſuch as ſhall heare her (and this kind of cattell is of a verie light hearing) comming neer to their food, they will into the baſon one after another; and by how many moe go in, by ſo much will they make the greater noiſe (not one being able to get out againe) becauſe the baſon within is ſmooth, ſlike, and ſlipperie. Some lay garlicke about their holes, or onions, or leekes, and theſe make ſuch a ſmell as that they either driue them away or kill them.

Againſt ſerpents.

All maner of ſerpents are driuen away with the perfume of *Galbanum*, or of harts-horn, or of the root of lillies, or of the horn of a goats claw, or of hyſſope, or brimſtone, or pellitorie, or an old ſhooe ſole. It is good alſo to plant in ſome part of the gardens an elder-tree or an aſh-tree: for the flowres of elder-trees by their ſtinking ſmell do driue away ſerpents: and the ſhade of the aſhe doth kill them: In like ſort it fareth with the pomegranat-tree, whoſe ſhade (as we haue ſaid before) drineth away ſerpents. It is good likewiſe to plant ſome one or other bough of ferne in the garden, becauſe the onely ſmell thereof doth driue them away.

Againſt ſcorpions.

You ſhall driue away ſcorpions, if you burne ſome of them in the place whence you would baniſh them: or if you make a perfume of veriuice mixt with *Galbanum*, or the fatte of a goate: or if you plant in your garden ſome little nut-tree.

Againſt bats.

The perfume of iuie will cauſe the reremouſe to abſtaine flying in your garden.

Againſt frogs.

Frogs will hold their peace and not crie any more, if you ſet a lantern with a candle light, vpon the ſide of the water or riuer, which compaſſeth the garden. If you burie in any corner of your garden the gall of a goate, all the frogs will gather thither, and ſo you may eaſilie kill them:

The threeſcore and firſt Chapter.

Of the hony-bee, the profit riſing thereof, and of chuſing a place to ſet them in.

IF the greateſt part of the profit of a farme, depend and hang of the keeping of cattell, I dare be bold to affirme, that the fruitfulleſt thing that can be kept about a country houſe is Bees. Indeed there is ſome paines and care to be taken in chuſing, gathering toge-

ther, holding, feeding, watching and keeping of them cleane in their hiues: but withall, what so great, rare and singular a commodity haue we as the waxe which we inioy by the Bees: yea what say you to honie it selfe, that their admirable worke, and no lesse profitable and pleasant for the vse of man? Let it not then seeme strange vnto you, if we aduise the housholder to giue eare and be carefull to keepe Bees about his farme, and therewithall teach him in a few wordes, what should be the ordering and gouerning of them and their hiues, and withall at what time and howre it is good to gather hony and waxe.

The housholder therefore shall first make choise for the keeping of his bees of some fit and secret place in his garden of pleasure, in the bottome of some valley if it be possible, to the end they may the more easily rise on high to flie abroad to get their food, as also for that when they be laden, they descend the more easily downward with their load. But let vs see to it especially that the place be open to the South sun, and yet notwithstanding, neither exceeding in heat nor in cold, but temperate: and that the same by hill, wall, or some other rampart be defended from windes and tempests, and so also as that they may flie their sundrie and seuerall waies for to get diuersitie of pastures, and so againe may returne to their little cottages laden with their composition of hony: and againe in such a place, as wherein there is great quantitie of thyme, organie, sauorie, iuie, winter sauorie, wild thyme, rosemary, sage, corneflag or gladdon, gilliflowres, violets, white lillies, roses, flowre-gentill, basill, saffron, beanes, poppie, melilot, milfoile and other sweet herbs and flowres, wherein there is no bitternesse: and in like maner sufficient good store of trees of good smell; as cypresse trees, cedar-trees, date-trees, pine-trees, turpentine-trees, iuie-trees, mastick-trees; and also fruit-trees, as almond-trees, peach-trees, peare-trees, apple-trees, cherrie-trees, and other such like: besides all this, maruellous great store of herbes, and those of the rarest & least knowen, and withall such as grow in well tilled grounds and pastures, for these cause them to grow rich in good wax, as the wild radish, the wild bell flowre, wild succorie, and blacke pionie: and besides these wilde parseneps and garden parsneps and carots. Broome and the strawberrie-tree are not altogether good for to make hony: the elme-tree causeth them to haue the fluxe of the bellie, as also the tithymales or spurges. Boxe maketh honie of a bad smell, and which troubleth their braines that eat it, and yet notwithstanding profitable for them which haue the falling sickenesse.

The place must be closed in with a very strong hedge, or else with good wals, for feare both of beasts and theeues: for kine and sheep do eate vp their flowres, and beate the dew off from the flowres, whereof the bees should loade them, and which is so well beloued of the little prettie birds, yea and that also, which falleth downe at the breake

of

of the day in faire weather, and is purified on the leaues and flowers of the plants, herbes, and wilde trees: but of all home and tame beasts, there is none that doth so damnifie these little pretie wretches, as swine and goates: for the goates waste their foode, and iumpe against their houses, yea and oftentimes beate them downe: the swine besides the wasting and eating vp of their foode, rubbing themselues against the hiues, doe ouerturne them and the seates whereon they be set: sheepe in like manner loosing some of their locks of wooll vpon the hedges, are cause that the sillie poore bees now and then become intangled therein, when they labour to get their foode, and so leaue their carcases for a pledge: hens likewise haue a gluttonous appetite towards them: serpents also doe sometimes take vp their Innes in their hiues: but to take away this casualtie at once and for euer, you must plant rue round about them in good quantitie, in as much as venemous beastes cannot abide this herbe. Their place also must be far off from the dunghill, common draughtes or issues, bathes, marshes, fennes, dropping, dirtie and mirie places, which might hurt them with ill smels, and for that these pretie beastes are deadlie enimies to all filthines and vncleannes: but rather let their place of abode be neere some small brooke of water naturally and of it selfe continually running, or else by art in some pipe or chanell, that will conuey along the water drawne out of some well or fountaine, and this rundle must haue by the edges stones or boughes of trees for the bees to light vpon.

But whatsoeuer the place is, whether in the garden of pleasure or elsewhere (albeit we haue assigned this to be one of the fruites of pleasure to bee gathered in the garden of pleasure) it must not bee hemde in with high wals on euery side: and yet if for feare of theeues, you were disposed to raise them the higher, then you must pearse the wall some three feete from the ground, and worke it with small holes, for the bees to flie through at, and some twentie or thirtie paces off to build some little house, if you be so disposed, for him to dwell in who hath the charge of looking to them, and therein also to put his tooles.

The threescore and second Chapter.

Of the fashion of the hiues, and manner of setting them for bees,

THE place and standing for bees being thus appointed, the next thing is according to that fashion which may be most conuenient for the countrie to make hiues. The best are those which are made of quarters of sawen boords, wide inough, but not very long: others you must haue long and narrow, that so you may haue two sortes of hiues, that is to say, great and small ones: the great

ones for such as are to be imploied in making honie, and the little ones for such as are to swarme and cast: the said boordes being fitted together with nailes, but yet so as that one or two of the boordes may be lifted vp when the honie is to bee taken, or the said hiues to bee made cleane: the hiues which are best and most conuenient next vnto these, are those which are made of barke of corke: and next vnto them those that are made of palme-tree and sallowes, such as we see in this countrie: the woorst are those which are made of baked earth, for they scalde with heate in sommer, and freeze with cold in winter. I finde those nothing conuenient which are made of dressed straw, or of brickes: for the one is very subiect to the fire, and the other cannot be translated or carried from one place to another, if neede should require. They must be wide beneath and narrow aboue, they must be a cubite wide, and two cubits high, drawne ouer and drest on the outside with lime and oxe dung mingled together, that so they may continue the longer. They must be set vpon boords fitted for the purpose, and that neere vnto some wall, but not close to it, that so there may be space for one to goe about them and make them cleane: or else vpon some vault of stone or of brick, to the height of three foot and as much in bredth, laid ouer with mortar on euery side, and planed, that so the lizardes and serpents, and other noisome cattell may not get vp and clime thither for to hurt them. The hiues shall be so set, as that there may be a certaine distance betwixt the one and the other, to the end that when neede shall require, to looke vnto any one for the making of it cleane, or any other thing, there may not any occasion be giuen to shake or rogge vpon the other, nor yet disturbe the adioyning bees: who doe greatly feare when they are touched, least their workmanship of waxe (which is very weake and easie to be spoiled) should be stirred or broken. The forepart where they goe in must be hanging somewhat forward, that so there may not any water or deaw fall into it, and when as any by hap shall fall in, that then it may not stay, but finde that as a readie waie out, and for this cause the hiues must be couered with small couerings and shelter, besides the shade of leaues and boughes made fast thereto with mortar of earth for a band: and this will serue against the cold, snow, raine and heate: although heate doe not so much hurt vnto bees as colde. And therefore behinde the bees as they stand, there must be some building, or else at the least a wall, which may be vnto them in steed of a sunnie banke against the north winde, and withall may keepe the hiues in a moderate warmth. And furthermore hines though they be thus defended and couered from the cold by this building, yet they must be turned vpon the east in winter rather then vpon the south (because if they were turned toward the south, they would be laid sore vpon by excessiue heate in sommer) to the ende that in the morning the bees for their earlier

The setting of hyues

comming

comming forth may haue the sunne hot vpon them, for their better wakening: whereas otherwise the colde would make them heauie and slothfull; and therefore the holes by which they passe and repasse, must be verie little, that so they may not giue place for the entrance of much cold, and they will be sufficient great, if so be there may but one Bee passe: againe by this meanes it will be prouided for, that neither the venemous stellion, nor the villanous beetle, neither yet the buterflies shall possibly enter to rob the hiues and honie combes. And moreouer according to the quantitie of bees in the hiue, you must make in the same hatch two or three holes, one somewhat distant from another, that they may passe in therby, as also for the deceiuing of the lizards, which would by reason of their watch, kill them as they came forth, if they had but one hole in all. It is further meete that the shelter vnder which the hiues shall stand, be well appointed for little open windowes, which you shall stop in winter with paper windowes or tiles, and that in such order as that they may be easily opened when the sunne shineth, and shut after that the bees are returned home into their hiues: and yet there must be holes in the saide paper lights, that so they may passe forth along at their pleasure whither they are disposed.

The threescore and third Chapter.

Of what qualities and conditions the bees must be.

I Will say nothing in this place of the ingendring of bees, as whether it be by the coupling of males and females together, as we see in other kinde of creatures, or by the corruption and rotting of the belly and entrailes of the bodie of a yoong bullocke, (whereof *Virgill* speaketh) but I will describe them as they are alreadie ingendred, as, what be the properties of such as are fit and like to make good hony. There are many sortes of bees: for some are of a golden colour, cleere, shining & bright: others blackish, rough, & hairie; som great; som smal; some thick & round: & others spare & long: some wild, & some tame. But and if you would buy or gather together swarmes out of the forrest to take their honie from them, looke, and take good heede that they haue the markes following, as, that they be little ones somewhat long, not hairie, neare golden coloured, shining and sparkling as gold, spotted aboue, gentle and louing, for the greater and longer that bees be, the woorse they are, and if they be cruel, they are nothing woorth: notwithstanding that their choler and malice is easily helped, if that otherwise they be well marked and fruitfull, by seeing them oft, for in your oft going to them, they become tame. But because one cannot learne to perceiue and know, if they haue all these markes aforesaide, if he see them not, if you buy them, before you cope for them, you

That bees are made of the rottennes of some bodie.

The carefull choise that is to be made in buying of bees.

must open the hiues, and see whether they be well repleniſhed or not, and if you cannot looke vp higher into them, then you must go by geſſe and aime, and consider if there be good store at the mouth, and whether you heare a great noise and huzzing within, and further if they be all retired and at rest: in putting your mouth to the hiues mouth, and blowing a good blast into it, you may perceiue whether there be many or fewe, by the noise which they will presently make when they feele the breath. It is good to buy them as neere vnto your abode as you can, and not in other countries farre off from your dwelling place: for the change of their pastures, aire, and countrie, doth astoniſh and amaze them; besides also, the further they are caried, the more they are pained in their hiues: but and if they cannot be got, but by seeking farre for them, you must conuey them betwixt place and place, some other way then by high waies, and that the rather in the spring then in winter, as also verie softly, for feare of shaking them. It will be good to take them before day, and to carrie them away at night vpon his necke, or rather it is better that two men should beare them: for in the daie time they must be let rest, and haue giuen vnto them some sweete liquor, that so they may haue to feede vpon though they be kept within. And when they are brought to the place of their abode, you must not open them vntill the next day at night, to the end, that after they haue rested all night, they may be the fitter to come foorth peaceably in the morning: although yet it were better not to alter or change any thing about them for the space of three daies, but to stop vp the mouth with some thinne cloth vntill the sun haue shone, and the euening after to open them. There is no such carefull heed taken in the chusing of those which are giuen, nor yet of those which haue beene taken or gathered in the fields or forrests, although I could aduise men to the contrarie, seeing the charges and paines are as great about the bad as the good: notwithstanding when one gathereth thē, it is not possible to make such choise as he would; and therefore he must be content with that which commeth next to hand, and yet not to be negligent to purchase & get the best that may become by, and to take good heede not to mingle the good & the bad together: for so the bad would dishonour the good, and there would be a great deale lesse hony, because of the bad & slothfull ones which are mingled amongst them. The gathering of them shall be after this fashion. When you haue found any place, by which great numbers of bees do passe (which is commonly in woods and forrests where herbes do abound, and trees of sweete smell, neere vnto some small riuer or fountaine) you shall vse all diligence to finde out the place of their rest and abode, which you may easily learne after their hauing beene at water, whether it be neere or farre off, by the place whither they turne: then afterward in the beginning of the spring, you must take

Choise of bees which are gathered in the forrests

balme

balme and thyme bruiſed, with other ſuch like herbs which bees loue, and therewith annoint your hiue ſo throughlie, as that the ſmell and iuice thereof may ſtay behinde: after that you ſhall make the hiue cleane, and ſprinkle it with a little hony, and hauing thus handled it, you ſhall ſet it downe in the woods or forreſts, neere vnto the ſprings, and when it is full of bees, you ſhall carrie it home. And thus much of gathering ſwarmes of bees.

The threeſcore and fourth Chapter.

Of the manner of gouerning garden bees.

THe Lord of the farme or farmer, hauing prouided feeding grounds, hiues, and fit places for bees, as alſo hauing bought or gathered good ſtore of ſwarmes to repleniſh his hiues, ſhall be carefull to affoorde them a more diligent and attentiue kinde of gouernment and ordering, than any ouerſeer or gouernour of other cattell, doth allow vnto the ſaid cattell vnder his charge: the cauſe is, for that the bee is more diſcreet and induſtrious than any other kinde of liuing creature: yea, ſeeing ſhe hath a kinde of wiſedome, comming neere vnto the vnderſtanding of man, therefore ſhe looketh for a more carefull manner of vſage and cariage towardes her from them that are her gouernours, and therefore cannot abide them to be mockers, ſluttiſh, or negligent, for they cannot abide to be niggardly or filthily intreated. It muſt therefore be his condition that ſhall haue the charge of them, to conſider their manners, and manner of liuing, and accordingly to frame himſelfe thereunto in the beſt ſort that may bee. They haue a king whom they obey as their ſoueraigne in all things, accompliſhing and fulfilling whatſoeuer he ſhall giue them in charge, whether it be to go forth, or to return home, or to ſtay within, and they attend him alwaies in companies whereſoeuer he be, they comfort him if at any time he be ſicke, and do keepe about him if he cannot flie: not one of them is negligent and ſlouthfull, but euery one ready and quicke to any kinde of worke: ſome of them gather the roſes, and bring home what they get of flowres and ſweere ſmelling leaues, vnto thoſe which ſtay within the hiue making hony: others are buſie in making combes, and building of little cabbins, ſome make hony, and others attend other matters and vocations, ſome lay to their hands to the ſoftning of waxe, and temper it ſo well, as that making thinne leaues thereof they therewith builde vp and frame them celles and cloiſters, others with great labour do ſunder the groſſe and droſſie ſubſtance, and make ready a place for euery ſort of hony: ſome of them with their paine and diligence do keepe cleane the hiues, which notwithſtanding are neuer defiled by any of their owne dung, for alwaies in flying abroad they auoide their excrements in flying:

The manners of bees.

some there are which ordinarily doe nothing but keepe watch and ward, to the end, that to the vttermost of their power they may withstand whatsoeuer thing may annoie and hurt them. They carrie out such as die within the hiues, but when their king is dead they stir him not from his place, but crouding one vpon anothers backe about him; it seemeth that they lament and mourne, as they make shewe by their noise and humming, and that so vehemently, as that if their keeper do not looke vnto it, and take him from vnder them, they will suffer themselues rather to die for hunger, than they will forsake him. To be briefe, euerie one of them is so diligent at his worke, as that they cannot beare it that any one should be in their company that shoulde not be occupied in doing something: and this is the cause why they driue away the drone, which will neuer worke, neither is good to any thing else but to waste the honie and deuoure it. They hate aboue all things euill sents, they neuer flie against the light, nor vnto any flesh, or bloud, or fat, but content themselues with leaues and flowres only, which haue a sweete smelling iuice. They take delight in pleasant and goodly songs, whereon it commeth to passe, that if they be scattered abroad, they will be called together at the delightfull ringing of some bason, or small bels, or in hitting the hands in a soft and easie sort one against another. To be briefe, their fashion and maner of lining is as it were wonderfull in nature: but giuing ouer all further describing of them, I will content my selfe in deliuering the conditions and duties required about their ordering and gouerning.

The threescore and fifth Chapter.

The order of gouerning bees all the yeere long.

HE therfore that hath the charge and ouersight of the bees, must be carefull, first of their pastures (whereof we haue made mention before) then he shal diligently looke vnto their hiues twise or thrise a moneth, beginning at the spring, & continuing till Nouember: for there is not that time in the yeere wherein they stand not in need of something; and, if they be well ordered, they will continue ten yeeres: they must be opened about the moneth of March, and the hony combes made cleane with a very strong and solide feather, when as they cannot be come by with the hande, that so, whatsoeuer filth is gathered there in the time of winter, may be cast out, and the spider webs which spoile all the combes, may be taken away: afterward he shall smoke them all with oxe dung burnt: for this dung by a certaine affinitie is gratefull and well liked of bees. But in the meane time before he handle the hiues, he shall be well aduised that the day before he haue not had to deale with his wife, that he haue not beene drunken, and that for the present he come not neere vnto them, without

out being waſhed, made cleane, and well apparelled: in like manner he muſt abſtaine from all meats that are of a ſtrong ſmell, as are all ſalt meates, and ſouſed meates, and all things being ſtrong of ſent, as garlicke, or onions, or ſuch like things: and contrariwiſe, let him carrie in his mouth ſome thing that hath a good ſmell, for by this meanes they will loue him ſo wel, as that he may handle their hiues at his pleaſure, and the little prettie birdes will neuer hurt or annoy him. At the ſame time (in aſmuch as then they begin to multiplie and increaſe, and to caſt their ſwarmes, which ſo ſoone as they can flie deſire nothing more than to flie awaie, and not to abide with the olde ones, and much leſſe to become ſubiect vnto them,) it will be meete to keepe watch very diligently, and that from after the morning tide is paſt, till two howres after noon, that ſo they may not flie vnto ſome other place. Wherefore if you can diſcerne and ſpie out their kings, it will be good to take their wings from them, if they make ſhewe of themſelues oftentimes, and ſeeme as though they would flie together with their company, as alſo to caſt duſt vpon them, or elſe water, for by theſe meanes they will be kept from going away; ſo that then they will no go out of their owne yard, nor out of the limits of their owne kingdome, neither will they ſuffer their troupe to go farre from them; or elſe it will be good, after that they are come foorth, to aſtoniſh and occupie their mindes with the ſounding of baſons, or of the ſheardes of broken pots, ringing foorth ſoftly, in aſmuch as by howe much you ſound the ſtronglier, by ſo much they mount the higher into the aire, and ſtray the further off: but and if it be a gentle and lowe ſound, they in like manner do ſtay and keepe themſelues neere at hand and below. And if they proceede to faſten themſelues vpon the next branch of the tree, as a cluſter of grapes doe hang vpon their branch, you muſt gather them with your hand, or with a trowell into a basket annointed with iuice of ſweete balme, or ſome drops of hony, and after ſet it on the row with the other baskets: or elſe to make a ſhorter diſpatch, he may cut the bough or branch of the tree, and put it very ſoftly into all theſe bees, which are within the dreſſed basket or hiue, the mouth of the ſame hauing beene firſt ſprinkled with wine: then after this, it muſt be ſet vpon a board vpon the ground all an end, the vpper part being kept ſo cloſe, as that the bees may go in no where but at the place which is open vnderneath. But and if this ſwarme of bees or little birds be got into any hole, or cleft of the bole and body of a tree, then carrie thither a hiue well annointed in euery place, as alſo at the hole or mouth, with very ſweet ſmelling herbes, and draw it ouer this hole and entrance of hollownes, to the end you may inuite them to a banquet with the delightſomnes of this ſmell, and with the better contentment to goe in to abide and dwell there: if they reſt themſelues in a place where you cannot come to them with your

Kinges of bees.

hand

hand, and such a one as is withall some what vneasie to be dealt with, then take a pole and tie to the ende of it a hiue sprinkled with good wine, and hold it neere vnto this clew of bees, and thus they will not faile to goe into it: then carrie them neeere vnto the hiues, for no doubt but they will goe vp and settle themselues in a short time. Or else which is the best, he shall hold all ready a new hiue to receiue them when he seeth that the yoong kings shall be come foorth with their yoong traine, which within a day or two will all be come together at the mouth of the old stock, and shew by sufficient signes and tokens that they are desirous of some place of their owne, and peculiar to themselues, for then if he do giue them one, they will rest contented therewith, and abide therein.

It is to be knowne when this yong host will come abroad, by the noise and humming which they will make in the hiue three daies before that they purpose to come abroad, as if a campe of warlike men would rise vp and remoone: and for to knowe when they make this noise, he must lay his eare at euening to euery hiue, that so he may heare the noise and humming when they make any.

Warres amongst bees.

And yet indeede this noise and humming is sometimes a signe and token of some fight or strife raised betwixt them and some other swarme, which must be well preuented, for otherwise by such ciuill warres and deadly fights, all the whole troupe and companie will quickly be ouerthrowne and brought to nothing. This intended combat is taken vp with a bowle of cute or boiled wine set vnto them, or else some honied wine, or other such liquor which by his sweetenes is familiar to bees, for these will appease their furie. But yet and if you perceiue that these skirmishes are not thus ended, you must make haste to kill the kings of the bees, which are the cause of such seditions and tumults. The manner to kill them is to obserue, when the whole troupe commeth out of the hiue, and is alreadie setled vpon some bough of some tree, and then to marke if the whole swarme of bees doe hang after the manner of a cluster of grapes vpon the branch, for and if they be so, it is a signe that there is but one king: or and if that there be moe, that yet they agree amongst themselues, and therefore you shal let them alone till they be in their hiues. But and if the whole troupe be diuided into many clewes, or round bunches, you need not then doubt but that there are many kings, and that they do not agree together. And then where you shall see them gathered most on a heap, and in greatest troopes, there you may search and looke for the king: annointing your hand with the iuice of sweete balme, or with honie, that so they may not flie away when you shall touch them, and seeke thus amõgst them vntill you haue found the king, which is the author of all this warre; you must kill and cast him out. And thus you may discerne and finde out the kings from the commons: the kings are somewhat

To kill the king of the bees.

The markes and signes of the kings of the bees.

somewhat greater and longer, their legs more straight and high, their wings lesse, but of a faire colour and neate, smooth and polished without haire and stings, except perhaps you will say, that a certaine grosse and thicke haire which they haue vpon their bellies is their sting, wherewith notwithstanding they neuer sting to do any harme. Some kings are found to be blacke and hairie, ghastly to beholde, and these are of the woorst sort of kings, and must therefore be killed, notwithstanding that they mooue no warre, nor stirre vp any coales amongst the yoong swarmed broode. Thus you see there is no cause to be astonished with marueiling when you behold these small birds to be so besotted and enraged with loue towards their king, that for to defend him, they willingly cast and expose their ownes liues into open hazard against all his enimies, which come to assaile him, besides other incredible obeisance, which they let not continually to yeeld vnto him.

The hiues that shall be made ready to receiue the new swarmes, must be rubbed with the herbes before named, and sprinkled with droppes of hony, the more easily to cause them to keepe therein. At this time of the spring it likewise sometimes commeth to passe, that by reason of the hardues of the winter past, or of some disease & sicknes, there is great want and scarcitie of bees in olde stockes, and this must be remedied by putting a newe swarme into that hiue, killing the yoong king, that so his subiects may cõtent themselues to liue peaceably vnder the old. But & if you haue not a swarme, then the next way is to put the troupes of two or three such diminished stocks into one, bedewing or sprinkling the same before with some sweete liquor, and after to shut them vp in the same hiue, and set something within it for them to eat, vntill they be well woonted vnto it, and so to keepe them three daies closed vp, giuing them onely a little fresh aire at some small and little holes. And if it come to passe that the king of the olde hiue, which we shall haue left aliue do die, then you must choose them another king from out of the other hiues (where there be many) and giue them him to gouerne. And in case that meanes to do this doe faile, or that there bee not any purpose or inclination to take newe swarmes from other hiues, you must then breake downe all the little chambers and lodgings of their yoong kings, to the ende that the yoong swarmes which shal be together in the old hiue, may not betake themselues to their first haunt, but still abide and continue vnder the old, but their new king and captaine, and this they must of necessitie do, being compelled through want of their naturall and chiefe gouernours, and by keeping themselues with their ancients.

In rainy weather continuing long, bees not being able to go out of theire hiues to seeke pastures, and to bring home foode vnto their yoong broode, you must not faile to helpe them with some prouision

of

of hony, vntill such time as they shal be able to flie abroad to get their owne liuing, and to worke their hony combe of: for otherwise you shall quickly make an end of them, as it hath beene oftentimes seene to come to passe.

All the Sommer they must gather honie (whereof we will speake heereafter) and at the same time euerie ten daies their hiues must be opened, and smoked with oxedung: and afterward be cooled, by watering the emptie parties of the hiue, and casting thereinto coole water: and likewise be made cleane, and all grubs taken out of them if any be therein: and after this let them rowle and tumble themselues vpon the flowers, and then you must not take any thing from them, that so you may not annoy and become tedious vnto them too oft, and so cause them to flie awaie in despaire. In some faire day, about the end of Autumne you must make cleane their hiues, looking that it be hot also and calme: and if at this time there be found euer a combe vngathered and not plucke away; which sometime was leane and thin, you must not therefore kil the bees, as many doe; but rather to saue them you must sprinkle it with a brush, dipt in honied water or in milke, hauing driuen them together on a heape with the smoke; keeping them close and shut vp after this in their hiue: for all the winter you may not open nor touch them, but keepe them close within till the Sunne beames breake foorth againe for their comfort, and that well couered, stopping without whatsoeuer clifts and holes, with morter and neates dung mingled together, in such sort that there be nothing left open, but onely a way for them to passe in and out: and also, though their hiues stand vnder couert, that further they be couered againe with stubble and boughes, and so much as possible may be kept from cold and windes, which they feare and abhor more then any other thing: to foresee likewise that raine and snowe may not hurt them, to make prouision of store of the iuice of sweete balme, honied water, sugred water, milke, or other liquor which may be fit and conuenient for them, in which liquor you must steepe pure and cleane wooll, whereupon the bee sitting may sucke out the iuice or liquor that is therein. And to the end that they may not endure hunger in the winter, and that they may not neede to eate the honie vp that they haue made, and which is left vntaken from them, it will be good to giue them at the doores of their hiues, in little pipes or troughes made of reedes, elder, iron, or lead, so prepared as that the Bees may not drowne themselues when they goe about to drinke, some drie figs, stampt or tempered in water or boiled wine. It will be good likewise to giue them some raisons out of the fraile stamped and sprinkled with water: or else some corans stampt with verie good wine and boild togither: or else some drie abricots stamped with honie and mixt with boild water, or of pancakes made of very ripe co-

rans,

rans, of the beſt figs and boiled wine mixt together : or elſe to caſt them in at the doore of the hiue ſome ſweete liquors with ſiringes, as milke and ſpecially goates milke as the beſt of all the reſt, to beare out the ſcarcitie and poorenes of the time vntill the ſpring.

In the combes there are found drones like vnto bees, but greater, which (although they be vnprofitable, becauſe they gather no food or ſuſtenance, but eat vp that which others bring in) yet do ſerue for ſome thing, for they hatch the yoong brood, whereupon come the ſmall bees : and therefore you muſt not kill them all, but keepe a certaine number, to the ende that the bees may not grow ſlothfull and idle.

The threeſcore and ſixth Chapter.

Of the remedies of the diſeaſes that bees are ſubiect vnto.

THE Bee is ſubiect vnto the plague, in which caſe there is no more ſoueraigne a medicine for them, then to carrie them far off. Againe, they are troubled with the fluxe of the belly, in the beginning of the ſpring when the ſpourges are in the flower and the elme-trees bring foorth their ſeed, where they are giuen to feed greedily and with great ſtomackes as hauing faſted all winter, and they be ſo deſirous to eate of theſe new and yoong flowers, as ſome folke are to eate of new apples, and thereupon they die quickly, if it be not ſpeedily foreſeene, in ſuch ſort as that in ſome places of *Italy*, where the elmes do grow vpon plants the Bees cannot continue or indure long. For this cauſe you muſt quickly helpe this fluxe of the belly, with the rindes or ſeedes of pomegranates pouned and ſearced, and afterward mixt with honie and ſprinkled with good ſweete wine; or elſe with dammaske or Languedoc raiſons dried, pouned, and mixt with good ſweete wine, or with honied water wherein hath beene boiled roſemarie, or elſe with *Marſeillis* figges, which haue beene boiled a long time in water, all theſe giue them in pots or pipes of wood, to the end they may eate and drinke thereof. *The diſeaſes of bees.*

Bees are ſometimes ſicke, when as euery yeere continually there is great ſtore of flowers, for the bees thereupon labour rather to make great ſtore of hony then any yoong bees, and ſo it commeth to paſſe that many die of exceſſiue toile and trauaile, and further becauſe thoſe which remaine are not ſupplied with yoong and new ſtore, they likewiſe die all of them. Wherefore when in the ſpring time the meddowes and fieldes are fild with flowers, it will be good euery third day to ſtop vp the places whereat they go in and out of their hiues, leauing onely a few little holes, but ſuch as the bees cannot get out at, that ſo they may be turned from making of hony, and that ſo alſo

when

when they perceiue that they cannot fill vp all their waxen chambers with honie, they may applie themselues to fill them with yoong bees.

Lyce and grubs If lice or grubs, which are ingendred of the filth in their hiues, do trouble them, you must smoake them with a bough of the pomegranate or wilde figge-tree.

Heat or cold. They fall into a consumption and become all dried away after hauing indured a very great heate or cold. And it is euidently perceiued, for it is often seene that one beareth out of the hiue the bodie of another that is dead, and that some of those that are within and aliue, become all pensiue and sad, after the manner of a generall mourning: which when it hapneth to them, they must haue meate made of honie boild and beaten with galles, or dry roses.

Fighting betwixt swarmes. You shall staie the brawles betwixt swarmes, if you cast vpon them some small dust, or boiled wine, or honied wine, or other like liquor, which by his sweetnesse is common and familiar vnto Bees.

Cruel and fierce bees. The bees that are cruell and rigorous, will become tame and gentle, if you vse to go amongst them oftentimes.

Corrupted combes. Sometimes there is such store of honie combes made, as that for want of bees they stande emptie, whereupon it commeth that they rotte, and destroy the honie by their rottennes, and the spoile of the honie causeth the bees to die. For to remedie this, you must put two swarmes into one hiue, or else cut away the putrified combes with a very sharpe and well whetted toole:

Against butterflies. The butterflies which vse sometimes to hide themselues in the hiues, and do kill the bees, will themselues be killed, if when mallowes are in flower, and they abounding in great quantitie, there be set amongst the hiues in the night season a high and narrowe mouthed tinne pot, with a burning light in the bottome of it, for presently all the butterflies will hasten and flie thither vnto the light, and flying about it will burne themselues, for they cannot easilie from a narrow bottome flie right vp, neither yet shunne and auoid the light in getting themselues farre off from it, seeing they are forciblie kept within a narrow scantling, the pot it selfe being not wide but narrow.

Against drones. To kill drones, which doing no good deuoure the honie: when it shall be neere night water the couerings of some vessell which you shall set neere vnto the hiues with water, the drones will all of them flie vnto those couerings to coole themselues and quench their thirst, which they haue gotten by eating too much honie: and then it will be an easie thing to kill them, and as for stinging of you, you neede not feare it, for they haue no sting at all,

The threescore and seuenth Chapter.

Of the manner of gathering hony.

THE gathering of honie, for which there is so much labour taken all the yeere long, is chieflie effected at three seuerall times, as shortly after the spring, all the sommer, and in the beginning of autumne. But there cannot any prefixed day or certaine time be appointed for the same, seeing it dependeth of the finishing of the combes: for and if you draw them out before they be throughly wrought, the bees grow male contented, and ceasé to worke any more, by no reason of the thirst which they indure. The time of gathering home is knowne, by the bees their no more making of a great noise, but turning the same into a soft and low buzzing, as also if the holes which are aboue in the vessels be stopt with waxe, if the bees driue out the drones which are like vnto beees, but a greater beast, and altogether vnprofitable and without taking of any paine, for they gather no food, but eate vp that which others bring in. The howre of taking the combes is commonly the morning, for it is not good to disquiet and trouble them in the heate of the day, and this must be done with two iron instruments or kniues: the one whereof must be long and narrow for the cutting away of the combes; and the other for the scraping away and pulling out of the filth that shall be fallen into them. It will do well to moisten these two tooles oftentimes in water that so the waxe may not sticke vnto them, and that the bees which shall be abiding within may not be hurt. The vessels may not altogether be emptied, and so all the fruite taken out, but there must be left remaining as it were the tenth part, or (as others say) the fifth part as well in the spring, as in sommer: but in autumne two parts must be left, and the third onelie taken: for by this meanes you shall not much discontent them, and with all you shall leaue abundantly behinde for them to eate and feede vpon. The gathering of honie most commonly vsed, and most reasonable is but to take the most ripe combes and those which are best perfected, and with all of them but two thirds. If the hiue be halfe full of honie, then there is but the halfe of that to be taken away: and if it be vnder halfe full, then there must be taken from it with discretion proportionably. Furthermore, you must make them come foorth with the smoake of neates dung, or of a woolfes bladder or galbanum, or wilde mallowes, and with the iuice of this herbe must he be annointed which shall gather the honie to keepe him that he be not stung: or to make him bolde let him take a maske with a paire of spectacles set in it to giue him light to see; and let him also haue a linnen cloath close writhed about his necke and head, and gloues vpon his hands for to geld and handle them to his

The gathering of honie.

good

good contentment: or, which is better, let him haue a linnen hood to compasse and go ouer his whole face, made of a most fine and close wrought kall, like vnto networke: for by this meanes a man shall see at his pleasure that which he goeth about to doe, and yet be free from the danger of the Bees stinging. But notwithstanding that you take from the Bees their worke of hony and waxe, yet you must not kill them, nor driue them far away, if it be possible, but to keepe them for to draw yet more profit out of them afterward; and when as yet there is no hope of good of them by reason of their oldnesse, euen then you must not vse any ingratefull cruelty in steed of recompence, and murtherously massacre them. In the countrie of *Tuscanie* in remembrance of the bountifulnesse of this poore cattell, it is forbidden vpon a great penaltie to kill Bees, so long as possiblie by any meanes they may be kept aliue. It will be good therefore for their safegard, at such times as their combes are to be gelded, to smoke them in such sort, as that they may withdraw themselues safely into some corner toward the midst of the couering of their hiue, and not to come foorth: or else you shall make them come foorth the couering of their hiue taken awaie, and a sacke tied to the mouth of the hiue, and after smoking the Bees from vnderneath, for so they wil betake themselues into the said sacke, which must be fast tied and laid vpon the ground, vntill that the honie be taken away at leasure. After this the hiue or vessell must be set to the mouth of the sack and the couering put vpon it againe that so the bees may returne and enter into their house againe to begin their worke anew: or else set neere vnto the hiue which you meane to geld another empty hiue, which shall be perfumed and hung about with sweet smelling herbes, and it shall haue a hole in the couer as bigge as ones hand made round, to the end that Bees may go in at it, hauing made an end of the building of their combes euen to the top, and downeward more than the halfe part of the hiue, by this meanes you shall take away at ease such hony as is in the hiue, and not loose any part of it, seeing that it may be taken foorth at any howre that you are disposed, without hurting of the combes, and without molesting or troubling of the Bees in smoaking of them, to cause them to gather together vpon heaps into some corner, or else by constraining them to flie some whither else. The combes being taken away, shall be carried to the place where you meane to make the hony, and stopping the windowes of this place preuent the comming of Bees thereinto: for they will busily seeke the treasure that they haue lost, and if they find it, wast and consume it: and therefore to cut off all meanes of entrance for them into this place, you must there raise a smoke which may driue away them that shall assaie to come in.

The

The threescore and eighth Chapter.

Of the making of honie and waxe.

To make honie and waxe.

YOu must make your honie the same day that you haue taken out your combes, although they be warme and somewhat hot. And for the doing hereof, the combes must be set one against another in a willow or oziar basket, wrought verie cleare, and fashioned like an hipocras bag, after that you haue once clensed away from the combes the seed of yoong brood, and all manner of other filth: and when the honie shall be run thorow the basket into a bason, that shall be set vnder it, you must put it into an earthen vessell, which must for some small time be left open, till it haue done boiling and casting forth of his froth by staying in the same: this done the pieces and lumpes of combes shall be taken out of the basket and pressed, and there will honie come out of them, but not so good as the former, which must be put by it selfe, that so the pure and that which is indeed very excellent may not be corrupted thereby. After that the remainder of the combes is thorowly pressed out, and washt in sweet water, they shall be cast into a copper vessell with some water, and so set vpon a soft fire to melt. This wax thus melted, shalbe strained, letting it run out into water, and then being melted againe, with water you shall make it vp into what forme you will.

The threescore and ninth Chapter.

Of the marks of good honie.

THe good Farmer maketh gaine of euery thing, and by whatsoeuer he can perceiue necessarie for the inhaunsing of his house. Now I dare boldlie affirme that there are few things found about a countrey house, which are of greater increase and aduantage than honie. Againe we see what traffecke the Spaniards make with it, who through the barrennesse of their country, hauing no other means to inrich themselues, do keepe a great number of bees to make much honie of them: in like manner doe the inhabitants about *Narbone*, who send amongst vs great quantities of white honie, which we make serue for our vse: but I would aduise such as make a traffick heereof, that they would not gather anie honie but that which is good: for the labour and cost is no lesse to nourish and keepe bad bees, than those which are good.

The markes therefore of good honie are, that the honie be of a yellow colour, pleasant smell, pure, neat, and shining in euerie part, sweet and verie pleasant to the taste: and yet notwithstanding this, hauing a certain kind of acrimony or sharpnesse, of an indifferent con-

The marks of good honie.

sistence betwixt thicke and thinne, hanging together in it selfe, in such sort as that being lifted vp with the fingers end, it keepeth together in maner of a direct line, without any breaking asunder, for it should argue it selfe to be either too thicke or too thinne, if it should not hang together but breake, or else to haue some other vnequall mixture: it must not be long in boiling, and yeelding but small store of scumme, when it doth boile: aboue all it may not exceedingly smell of thyme, though some (as I my selfe doe know) doe greatly esteeme of such.

White honie. And that which is gathered in the Spring or Summer, is much better than that which is gathered in Winter. White honie is not of lesse goodnesse than that which is of a golden yellow, so that there accompany it the other marks of goodnesse, such as that is which the Spaniards and men about *Narbona* doe send vnto vs being very white, and sufficient firme and hard, and therefore better without all comparison than any other sort of honie.

New honie. Olde wine. Honie the newer it is, the better it is, cleane contrarie to wine, which is more commended when it is olde than when it is new. This also is to be marked in honie, that as wine is best at the mid-caske, and oile in the top, so honie is best towards the bottome: for by how much honie is more firme and heauie; so much it is the better as being the sweeter.

Honie is best at the bottome.

The vertues of honie. The vse of honie serueth for manie things: it prolongeth life in olde folks, and in them which are of colde complexion: that it is so, we see that the Bee which is but a little creature, feeble and weake, liueth nine or tenne yeeres by her feeding vpon honie. The nature of honie is to resist corruption and putrefaction: and this is the cause why gargarismes to cleanse and mundifie the vlcers of the mouth are made therewith. Some make a distilled water of honie, which causeth the haire that is fallen away to growe againe in what part of the bodie soeuer it be.

The tearme of the bees life.

The distilled water of honie.

The seuentieth Chapter.

The maner of preparing diuers sorts and diuers compositions of honie.

Hony of violets, roses, &c. HOnie hath such vertue, as that it preserueth & defendeth things from putrefaction and corruption, which is the cause that when any are disposed to keepe roots, fruits, hearbs, and especially iuices, it is ordinarily accustomed to conserue them in honie, whereupon it commeth that we vse these names, honie of violets, roses, rosemarie-flowers, damaske-raisons, myrtles, anacardie, bugloss, and such like, which are made with iuice and honie, of which only we will speake in this place.

The honie of violets, roses, bugloss, mercurie and rosemarie flowers,

ers, are all prepared after one sort: Take of the iuice of new roses a pound, of pure white hony, first boild and scummed, ten pounds, boile them all together in a cauldron vpon a cleere fire: when these boile, adde vnto them of new roses yet greene, cut in sunder with cisars or sheares, fower pound; boile them all vntill the iuice be wasted, stirring them often with a sticke. This being done straine them, and put them in a earthen vessell for to be kept, for it is better and better after some time. Otherwise and better, and ofter vsed: Stampe in a mortar new roses, adde like quantitie of honie, and set them in the sunne the space of three monethes, afterward straine them, and boile the licour strained out to the thicknes of honie. Otherwise, Take equall partes of honie and of the manifold infusion of new roses, boile them all to the consistence of a syrope; looke how manie times the more double the infusion of the roses is, by so much the honie of roses will be the better: and this same is the most fit to be taken at the mouth, as the first and second are for clysters. Or else take new rawe honie before it euer boile, or hauing but lightly boiled, and put thereto some quantitie of sweete water, red roses that are new and newlie dried in the shadowe, their white taken away, and a third part of honie, put them all together in a glasse vessell, or earthen one well glassed, which being close stopped shall be set in the sunne, and stirred euerie third day: and thus you may firly prepare honie of roses and rosemarie flowers a great deale better then after any of the former waies.

Honie of myrtles.

Honie of myrtles, is made with a pound of the iuice of myrtle-tree, and two pound of honie, all boild together vpon a small fire.

Honie of damaske raisons.

The honie of damaskes raisons is thus made: Take damaske raisons cleansed from their stones, steepe them fower and twentie howers in warme water, and after boile them to perfection: when they haue thus boild straine them through a strainer verie strongly, and after that boile them againe to the thicknes of honie.

Honie of the fruit Anacardia.

Mel anacardinum is thus made; stampe a certaine number of the fruite Anacardia, and after let them lie to steepe for the space of seuen daies in vineger, on the eight boile them to the consumption of the one halfe, afterward straine them through a linnen cloth: the iuice that is strained out must be boild with like quantitie of honie.

Honied water.

The manner of making honied water: Take one part of honie, and sixe partes of raine water, put all together in a little barrell, well pitcht and stopt aboue, that so no aire at all may enter in at it: afterward set it out in the hottest weather that is, as in Iulie, but out of all raine, and leaue it so about fortie daies, but with such prouiso as that you turn the barrell euerie eight daies, to the end that the sunne may worke on all sides of it. To make it more effectuall and of greater vertue, it will be good in quince time, to mixe therewith the iuice of quinces, in such quantitie as that there may be for euery pound of

honie, a quarter of a pound of iuice of quinces. Some before they put the hony and water together into the barrell, boile them together vpon a cleere fire, or vpon coales without smoke, they scum the hony and boile it to perfection, which they gather by casting an egge into it, which if it swim aboue, then the hony is sufficiently boiled, but and if it sinke, then it is not boiled inough.

A wine made of honie and water.

The Polonians, Muscouites and Englishmen do make a drink hauing the forme of a honied water, which is far more pleasant and more wholesome than many mighty wines, and it is called Mede. They take one part of hony, and sixe parts of raine, riuer, or fountaine water, they boile them together, and in boiling them take off the scum very diligently, and continue the boiling till the halfe of the whole be consumed: being cooled, they put it vp in a wine vessell, and after adde vnto it six ounces of the barme of ale or beere, to make it purge and boile vp, and withall they hang in the vessell a nodule or knot full of cinnamome, pepper, ginger, graines of paradise and cloues: also they cast into the vessell a handfull of elder tree flowres: they set the vessell in the sunne in summer time, for the space of fortie daies, or in winter they set it in some caue vnder the ground. This kinde of honied water is very soueraigne against quartaine agues, ill dispositions of the bodie, diseases of the braine, as the falling sickenesse, apoplexie, and palsie, in which cases wine is forbidden.

Marchpaines of honie.

The countrie men of *Prouence* and the Italians do make marchpaines of hony and almonds after this maner. Take white hony three pound, and three whites of egs, beat all together with a wooden pestill in a basen, till it grow vnto the colour of milke: afterward set the basen vpon a fire of coales, stirring all together very carefully with the pestill, till such time as it become somewhat thicke: then put thereto sweet almonds stamped and fried, such quantitie as shall be needfull for the making of it of some good consistence: being yet hot, powre it out vpon some marble, or polished table: make vp your marchpaine thereof, and it will be singular good for them to eate which are in a consumption, as also to procure spetting.

The seuenty and first Chapter.

Of the markes of good wax, and the manner of preparing diuers sorts of waxe.

The signes of good waxe.

GOod wax must be of a very yellow colour, smelling sweete, fat, light, pure, firme, close, neat and purified from all filth. It is the ground of other waxes called artificiall, as being by art made into diuers colours, as blacke, red, greene, and white wax.

Blacke wax. Greene wax. Red wax.

Blacke wax is made with ashes of burnt paper; greene by putting verdegrease vnto it; red by putting of the roote of Alkanet vnto

common

common wax, or the powder of Cinnabrium; but white wax is made many waies, but for the most part, after this sort and manner. Melt wax in some vessell fit for the purpose, afterward straine it from all manner of superfluities through a strainer; being thus strained set it vpon a soft coale fire, in a great skillet or vessell of copper, to keepe it liquid and in heate: close there-by you shall haue one or two great barrels, made after the manner of lee-tubs, full of water newly drawn out of the well, in which you shall wet two boords that are round, flat, and halfe finger thicke, fashioned like round couers or lids of pots, and in the midst they shall be made fast to a little sticke or wooden pinne in manner of a grasp, by which one may handle them: you shall dip these same (first well wet in water) in the vessell where the wax shall be melted, and presently after you shall pull them out full of wax; and put them in the water tubs, where the wax will abide, that shall haue cleaued vnto them: you shall gather this wax together, and spread euery piece by it selfe vpon hurdles couered with linnen cloth, in the greatest heat of the sunne, in the moneth of Iulie, and vpon these you shall leaue it till it become white. In the meane time, while it shall thus lie in the sunne, if it happen that the heate of the sunne be so vehement, that it melteth the wax so spred vpon the hurdles, you must water and sprinkle it often with coole water, and by the same meanes also defend it from the bees, which will flie thither from all corners to get out the honie. Otherwise, boile the waxe in water so oft, as vntill that you see it white: howbeit this manner of whitening wax is not so sure, nor of so easie charges as the first, for the often melting of the wax, doth waste it very much: but the drying of it in the sunne, bringeth no great losse, as you shall best finde after proofe and triall made. *white wax.*

To make searing candle: Take two pound of new wax, a pound of good rosen, and a quarter of a pound of turpentine; mix them and make searing wax.

The end of the second Booke.

THE THIRD BOOKE OF THE COVNTRIE FARME.

The Orchard, or greene plot.

The first Chapter.

Of the differences of Orchards or greene plots, and the incloſing of the fruite garden.

THere are three ſortes of Orchardes or greene plots, the one (otherwiſe called an arbour) contriued with greene bankes, and this is pointed out and prouided in a field couered with green graſſe, and a fountaine in the midſt of it, and wrought into diuers plaine and euen plots and branches, conſiſting of loftes, which are ſuſtained and borne vp with carpentrie or frames of timber, vnder which a great number of people may ſit couered ouer head. Of this ſort I haue ſeene at Baſill and manie other places in Germany: and, to fit a place for this manner of greene plot, it is requiſite that it be clenſed from all maner of ſtones and weedes, not ſo much as the rootes left vndeſtroied; and for the better accompliſhing heereof, there muſt boiling water be powred vpon ſuch endes of rootes as ſtaying behind in the ground cannot be well pulled vp, and afterward the floore muſt be beaten and troden downe mightily; then after this, there muſt be caſt great quantity and ſtore of turfes of earth full of greene graſſe, the bare earthie part of them being turned and laid vpward, and afterward daunced vpon with the feete, and the beater or pauing beetle lightly paſſing ouer them, in ſuch ſort as that within a ſhort time after, the graſſe may begin to peepe vp and put foorth like ſmall haires; and finallie it is made the ſporting greenplot, for Ladies and Gentlewomen to recreate their ſpirits in, or a place wheereinto they may withdraw themſelues if they would be ſolitary and out of ſight.

The ſoiourning place. *The beautifull proſpect.*

The ſecond ſort of greene plots is that which our ancient Frenchmen, who firſt wrote our *Romaine* diſcourſes and hiſtories, haue taken and vſed for a place of pleaſure fit for Princes, and was called in ancient time after the name of a ſoiourning or abiding place, but now by the name of a beautifull proſpect. Which beſide the ſtately building ſingularly contriued in partitions, diuerſitie of workes, and moſt faire windowes, compaſſed in with goodly water ditches, fed from continu-

all

all running springs, doth contain an inner and base court with gardens for pleasure and fruites, with vnder woods, warrens, fishponds, and whatsoeuer goodly and beautifull thing is woont to stand about princely pallaces.

The third sort of greene plots is that, which we intend to trim vp in this place, and it may supplie the place of the fruit garden, for a house respecting and looking to thrift, and to keepe a housholde for husbandrie: such a one as we haue heere resolued to furnish and set out euery way well appointed, and in which we are more to regarde profite ioined with a meane and moderate beautie and comelines, then any vnnecessarie sumptuousnes.

Therefore to go on in our designed course and intended plot, this place requireth, that next after the kitchen and flower gardens with their appurtenances: we make readie and trim vp a greene plot for fruite trees, containing in it as much ground as both the other gardens, and that without any manner of other alleies of diuision betwixt it and the gardens, or in the midst of it selfe, then such distance and space, as must of necessitie be betwixt the trees, and whereof we will speake more hereafter, and without also whatsoeuer other husbandrie, grasse or other things, whereof you might hope to make some profite vnderneath, whether of haie, or any such other thing which would grow there: for the fruite tree would not haue his sustenance purloined or kept from it, by the tilling of other plants which might be seated about it, neither doth it craue to be kept warme in winter, but onely tilled and ordered according to his seasons, because that otherwise it would yeeld no profite vnto the owner thereof. *The fruit garden.*

The situation of the orchard would be vpon some hill toppe, or some little hill, rather then in a plaine ground: for besides that such seates haue better aire, more pleasant and delightsome for contentment of contemplation and view, & diuers other allurements which will there offer themselues; the tops of hils are yet more apt to containe greater number of fruite-trees to be planted therein, then the plaine ground possiblie can: for such as stand in plaines, if they bee planted anie whit neere, do annoie one another with their shade: the other on the contrarie side (according as it riseth more and more from the foote) causing euery tree to ouer-looke his fellowe, taketh away the inconuenience of such ouershadowing one of another. It must also be planted more vpon the north then vpon the south quarter, that so it may minister matter of reioicing to such as shall behold it out at the windowes in his beautie and iolitie: Indeed if it be planted vpon the south, it is more open vpon the sunne, whose heate is verie requisite for fruite trees, but then it would not stande so faire for prospect: besides, that it would be offended and hurt of the dust and filth of the threshing floore when the corne is thresht, if in case it

ſhould ſtand neere vnto it.

In any caſe let it not ſtand vpon the Northweſt quarter, becauſe it is a moſt deadly enemie vnto all ſorts of plants, but principallie of flowers, which it cingeth as if a fire had paſſed that way, and the cauſe is for that it commeth from the ſea ſide, and taketh part with the north, which is verie rough and ſharp, but yet not ſo dangerous as that northweſt winde which bloweth once a yeere, chieflie in the ſpring, and ſpoileth the cherrie-tree flowers, and the vine more then any of the reſt. Whereupon there roſe this Latin verſe, *Væ tibi galerna, per quem ſit clauſa taberna.* In any caſe let not the ground whereon you plant your orchard be marſhie or wateriſh, for the fruits growing vpon ſuch grounds are not well reliſhed, neither yet will they laſt long: it muſt likewiſe be inriched one yeere before that it be caſt and digged, to make any nurcerie there, either of ſeedes or ſtockes, and after it hath beene the ſecond time digd and dunged, or marled, you muſt let it reſt and digeſt his dung and marle: and in like manner pick out the ſtones that are in it moſt carefully. And as concerning the naturall diſpoſition and goodnes thereof, it muſt be fat in handling, blacke in colour, and which murleth eaſily in breaking and ſtirring it with your fingers, not being hard, clayie, chalkie, or ſandie.

The incloſure or defence vnto the orchard ſhall be either a hedge of quikeſet, which is in truth the moſt pleaſant & conuenient, though yet the wall be more profitable, as being more ſtrong, and built in leſſe time, which alſo being planted and handſomely dreſſed, affordeth not much leſſe pleaſure then the hedge; or elſe if you like it better, a ditch caſt about it, with a quicke-ſet hedge ſet vpon the raiſed ſide thereof: but in this according as the ſufficiencie and reuenewes of the farme will beare it out: yet alwaies prouided that it be out of the way of the cattell, and where no man can come, except he enter in at the gate: and granted that the wall is the ſureſt kinde of defence, as alſo the ſtrongeſt, moſt profitable, and perfected in leaſt time. And in as much as the orchard is altogether dedicated and appointed for the matter of planting, grafting, and tranſplanting of trees in it: wee will aſſigne out certaine places wherein the nurcerie of ſeeds and the other of ſtockes may conueniently be appointed: which nurcerie of ſeedes ſhall be as a well furniſhed ſhop to afford new ſtore of plants, to furniſh the orchard at all aſſaies and times of need.

A briefe of that which ſhalbe ſpoken of in this third booke.

We will firſt ſowe our nurcerie of ſeedes on that ſide by which we go into the orchard, and cloſe vnto it the nurcerie of ſtocks, where ſhall be planted wilde ones, remooued from out of the ſeed nurcerie, to be afterward grafted vpon in their time and ſeaſon. On the other ſide we will plant fruits vpon nut kernels, and tranſplant and graft them after diuers waies. In thoſe parts of the two great voide places where they are ſundred the one from the other with a great path, we will

will according to their kinds, ſute out and ſet our great trees: and at the end of them we will pricke our oziers, ſo as they may for their better growth receiue refreſhment from ſome ſmall brooke or water courſe.

The ſecond Chapter.

Of the ſeede nurcerie, that is to ſay, of the planting of trees on pippins or ſeeder.

TRees grow and ſpring out of the earth, either without the worke and induſtrie of man, or elſe by his toile and skill painfully imploied: of ſuch as grow by the skill and induſtrie of man, ſome grow of ſeeds, that is to ſay, of kernels, commonly called pippins, or of other ſeeds, as of nut kernels, cherrie ſtones, plumbe ſtones, &c. being thruſt into the ground: other ſome of ſhoots & ſmall twigs branching from the roote at the foote of the tree, hauing their nouriſhing roots, and drawing fibres from the full growne rootes of the tree, or elſe of themſelues. Some growe of buds and bloſſomes, as ſciences: or of yoong branches or of boughes: ſome of the multiplying of branches, if eſpecially the tree be yet yoong and pliant: others are grafted one vpon another. We will firſt intreate of the making of them grow in the ſeede nurcerie of their ſeedes, and ſo in order afterward we will intreate of other meanes of making trees to grow.

For the ordering therefore of your ſeed nurcery, and furniſhing of it with peare trees, apple trees, quince trees, and others growing of ſeeds, you ſhall cauſe to be digged good and deepe, a great quarter in a good earth and cheriſhing mould: and that if it be poſſible a winter before yow ſow them, to the end it may thereby become well ſeaſoned, and you ſhall almoſt mixe amongſt it halfe as much dung as the earth comes to that you turne vp, that ſo it may ripen & rot with the earth, & ſo be kept in great ridges, vnto Cyder time which is in September and October. At which time take the droſſe of the ſaid fruits as it commeth out of the preſſe, or a little after, ſo that it be before the ſeeds be rotted or corrupted, and chafe and wipe them very well betwixt your hands, then laye flat and ſquare your plot or quarter, and that good and cloſe, and make it out into borders of the bredth of fower feete or thereabout, and making pathes, by caſting vp the mould betwixt euerie two, to the end that they may be wed vpon the one ſide and the other without treading vpon them. This being done, ſow your droſſe there in ſuch ſort as that the earth may therewith be lightly couered, and then afterward couer it againe with the earth which you haue caſt vp in making of the pathes or hollowed furrowes betwixt the ſaide borders, and rake them ouer afterward, that ſo the droſſe of the apples may be well broken and ſpred, not lying together on heapes.

Otherwiſe:

Otherwiſe: drie the foreſaid pippens, and keepe them to the winter following, and afterward about the latter end of Nouember, or the beginning of the ſpring, ſow them in manner as hath beene ſaid, without caſting vp any earth out of the paſſage furrowes betwixt the borders when you ſhall meaſure them out: but rake them in a little with your rake, and throw thereupon good ſtore of thornes and boughes very ſhortly after you haue thus ſowen them, that the hens or hogs may not doe them any iniurie. When the pippens are put foorth of the earth, and growne for the ſpace of a yeere, take away the thornes and weede away all the weedes from amongſt them as oft as you can, and ſuffer not any one to grow vp in height with them, for feare that when you ſhall come to pull vp a ſtiffe and ſtrong growen weede, you pull not vp therewithall the little pippin and ſeede of the tree. Water them if the ſommer ſhall fall out drie, and begin to weede and lop them, to acquaint them with the hedgebill, and to keepe them ſtill ſo bare of branches, as that their ſap may be imployed all wholly in the making of one faire and luſtie bodie and ſtocke, and not many: afterward pull them vp toward winter, before they haue begun to bloſſome, to tranſplant and remooue into the nurcerie of ſtocks. To cauſe them to ſhoote and put the ſooner out of the earth, you muſt ſteepe their kernels in water or milke for the ſpace of two or three daies: and you are heere to vnderſtand, that the ſeed of the mulberry tree doth not grow ſo haſtily, or bring forth ſo good fruite as the ſeed of the figtree.

To ſow the elme trees

For to ſow the elme, you muſt gather his ſeede before the tree be couered with leaues, which is in the beginning of March, at ſuch time as it beginneth to be yellow: afterward they muſt be dried two daies in the ſhadow, and after that ſowen in a ſufficient firme ground an inch deepe, and watered often if there fall no raine.

The bay tree muſt be ſowen a foote deepe in the ground, and fower ſeeds together: tranſplanting and remooving it a yeere after into ſome other place: and in like caſe you are to deale with all ſuch like ſeeds, whether they be of cypres trees, mirtle trees or others.

The third Chapter.

Of plants comming of ſtones.

The ſetting of ſtones.

FOR your plants of ſtonie kernels, as of oliue trees, cherrie trees, plum trees, almond trees, peach trees, cheſnut trees, pomegranat trees (if ſo be that pomegranat trees be rather to be reckoned amongſt them which haue ſtone-kernels, then amongſt the other which haue the ſoft kernels) abricots, and date trees; you muſt drie the ſtones, as they come freſh out of their fruits, which you meane to

ſet

ſet in the ground at ſuch time as the ſunne is not very ſharpe, and in the ſhadow thereof: and ſee that it haue beene ſteeped in milke or water three or fowre daies before, and then thruſt it into the earth. But this muſt not be done but in the beginning of winter, that ſo they may firſt breake foorth in the ſpring; for and if you put them into the earth before winter, they may alſo ſprout and put forth before it come, and ſo finding them yong and tender when it commeth, may preuaile againſt them to kill them, they not being able to reſiſt the rigour and roughnes of the cold and froſts. But and if for your auoiding of ſome labour you will graft them in their nurcerie, that is to ſay, in the place where you firſt ſet them, and where they haue put foorth, without remooving of them to any other place, then ſet in euerie hole, three, fowre, or fiue ſtones: and if all of them ſpring vp and take roote, yet you muſt let none but the faireſt ſtand and continue to graft vpon in the place, and as for the reſt they would be puld vp and remoued into ſome other place.

Ground for the ſetting of ſtones.

In what ſeaſon ſoeuer it be that you ſet your ſtones, yet ſee to it that the ground be good, and digd very deep, but put much ſmall dung amongſt it, either alone or mingled with duſt gathered out of the high waies, and ſet them three fingers within the earth, and halfe a foot one from another, watering them three times euerie moneth, eſpecially in ſommer when it falleth out drie, and weede them once a moneth. Eſpecially ſee they be ſet in a faire ſoile, and open vpon the ſunne, if ſo be you would haue a well fed and pleaſant taſted fruite: for otherwiſe if you ſet them in a ſhadowed place, though it be of a good ſoile, indeed the fruit may be faire to looke to, but vnſauorie inough to eate. When the ſtones are ſet and haue taken footing and are become ſomwhat pretily fed, pull them vp about Aduent which you mind to tranſplant, and breake off the points of their roots, and ſtrip them of all their branches, before you ſet them downe againe in their newe appointed ſtanding: and know that a double remoue doth make the wild to become free conditioned and better, bringing vnto them great aduantage.

Great and groſſe nuts.
Peaches.
Peare-plums.
Almondes.
Cheſnuts.
Abricots.

And as concerning particular properties belonging to euery ſtone and how it muſt be ſet, it is to be knowen that groſſe nuts, all maner of peaches, wild figs, almonds, cheſnuts, ſmall abricots (but eſpecially and moſt ſingularly well the branches) becommeth free and reclaimed, being ſet of a ſtone, foreſeene that they finde as good and as faire a ſoile, as the trees enioy, from whence the fruit of the ſaid ſtones were taken.

The ſtone of the peare-plum-tree muſt be ſet in a colde place, a foote deepe in the ground, the point downward, euery one a foote from another, and this in Nouember in high places, and in Ianuary in low places.

The

Iuiube-tree. The ſtone of the Iuiube treee muſt be ſet after the manner and faſhion of the ſtone of the peare-plum tree, but it is long and ſlowe in growing out of the earth.

Plum-tree. The ſtone of the plum-tree muſt be ſet in a fat ground, a foote deepe, and that in Nouember and February, and they are to be remoued the ſame time of the yeere, making their holes and pits neither too wide, nor too deepe.

Pine-tree. The ſtones or nuts of the pine tree muſt be ſet in cold places, in Februarie and March, or about the fall of the pine apple, or ſhortly after, in pits well digged and of a good mould: the apple may not be broken by violence, or with any iron inſtrument to get out the kernel, but you muſt attend til it be opened, and ſet vpon it gaping. And the pine-nuts muſt be ſteept three daies before you ſet them, and then you muſt ſet ſeuen together. Some lay them in little baskets, and cut them when they are ſprung vp. They need no remoue, but and if you do remoue them, you muſt looke in the taking of them vp, that you hurt not the chiefe and principall rootes.

Small nuts. *Peaches.* *Auberges.* *Great abricots.* Small nuts and plums of all ſortes, peaches the ſmall and great, and great abricots, in whatſoeuer good ground and pleaſant ſoile their kernels be ſet, yet they grow not altogether like vnto the fruit of their trees whereof they were gathered: and therefore they delight rather to be grafted vpon their yoong ſtockes.

The date ſtone. The ſtone of the date which bringeth forth the date tree, muſt be ſet the great end downward, two cubites deep in the earth, and in a place enriched with goates dung, and the ſharpe ſide vpward, it deſireth to be watered daily, and that there ſhould euery yeere be ſalt ſown about it, and withall it muſt be remoued.

The ſeeds of limons, citrons, oranges, Aſſyrian citrons, & ſuch like, as hath been ſaid in the ſecond book, muſt be prickt down vpon beds well prepared and dunged about the moneth of March, and the ſharpeſt end downward, halfe a foote one from another, and a finger and a halfe deepe in the ground, they loue to be much watered, after when they are growne a foot high, remoue them to the foote of ſome wall, open vpon the South: and in Winter when the time is hoarie, couer and fauour them in ſuch maner as we haue ſpoken of in the ſecond booke: as much may be ſaid of pomegranate kernels, and bayberries, as you may vnderſtand by the ſecond booke.

Piſtaces. Piſtaces doe require greater diligence and delight to be ſowen, as well the male as the female, in a very fat ground and well eared, the backe turned to the Eaſt, and this about the firſt day of Aprill: and at the ſame time of the yeere you may graft them vpon themſelues, notwithſtanding that ſome doe graft them vpon the almond tree.

The peach plant. The peach ſtone would be ſet preſently after that the fruite is eaten, there remaining ſtill ſome ſmall quantity of the fleſh of the peach about

about the ſtone: and for the longer laſting and keeping of it, it loueth to be grafted vpon the almond tree.

The fourth Chapter.

Of the nurcerie for ſtockes.

IF you would haue a beautifull and pleaſant fruite of your trees, it is not inough that you ſhould onely ſowe or ſet your ſeedes or ſtones in a good ſoile, but it ſtandeth you as much vpon to remooue them after one yeere into another place: for this tranſlating of them doth ſo delight them, and reuiue their vigour and ſpirites, as that they yeelde more pleaſant leaues, and a better fedde and liking fruit. For and if you will beſtowe this fauour vpon wilde plants, you ſhall finde them to become of a gentler nature, and farre more excelling beautie. Wherefore when the trees which ſhall haue ſprung vp of ſeedes or ſtones, ſet or ſowen, ſhall haue come by ſome little nouriſhment, and grow in the ſeed nurcerie, take them vp vpon a new moone, at night, with as many roots as poſſiblie may be; and if it happen that any of them be ſpoild or broken, cut it: looke vnto it alſo, that you do not pull it vp when the northren winde bloweth (for this winde is an enimie vnto newe ſet plants) and ſet them againe preſently, leaſt the roots ſhould ſpend themſelues, it muſt not be in a hot, or cold weather, nor in an exceſſiue winde, nor in raine, but when it is calme and very faire, chuſing rather a cloudie day, then when the Sunne breaketh out hote, and the Moone being in her increaſe: but and if you ſhould not haue the leiſure to remooue them ſo ſoone, or and if you would ſend or carrie them ſomwhat farre, binde them vp in their owne earth mingled with dung, and make it faſte thereto with woollen cloath or leaues. When as you take them vp, marke what part ſtandeth vpon this or that quarter, to the ende that you may ſet them downe againe vpon the ſame quarter & coaſt of the heauens, for and if in remoouing them you ſet them in a contrary ſoile and ſituation, in reſpect of the heauens, they will not thriue ſo well: and that is the cauſe why thoſe that buie new plants, moſt diligently inquire in what manner of ground they ſtood, and what aſpect of the Sunne they were moſt open vnto, that ſo they may ſet them downe againe in ſuch like ground, and in the ſame aſpect. True it is that this obſeruation ſeemeth too ceremoniall vnto me, and exceeding harde continually to be kept, ſeeing wee buie trees at Paris ſometimes to plant, whoſe firſt ſituation we doe not knowe, neither can we learne, and yet notwithſtanding being planted, they ceaſe not to thriue and proſper. And againe, what cauſe is there of any ſuch ceremony, ſeeing the ſunne which is the nurſing father of all plants, doth viſito euerie daie all the ſides of the tree, and that the ground wherein it is

planted,

planted, is no leſſe nouriſhing vpon the one ſide than vpon the other: Theſe things weighed, about the thirde of December, you muſt lay flat another plot, and make a furrowed quarter, where you ſhall lodge according to the order of a hundred, the ſmall wildings, which you ſhall haue taken vp out of the ſeed nurcery, cutting off the ende and beardes of all their rootes, and which may be in any place about their ſlender little ſtocks, and that in a good ground, yea much better if it be poſſible than that is of the ſeed nurcerie. It is true, that the furrows muſt be made according to the goodnes of the ground, & the nature of the tree: for in a clayie or hard ground, you muſt make your furrows the depth of three cubites: in a watry and marſhie place, of three feet only. Some plants, as the aſh and oliue tree grow better in the vpper face and top of the earth, then in the depth and lower parts of the ſame. Set in order your yoong wildings in the ſaid furrows halfe a foot one from another, and there couer them, and leaue the ſpace of a foot betwixt one furrow and another, that there you may make pathes to go about weeding with eaſe, and paſſe betwixt euery two furrowes. When thus your wildings are ſet, you muſt cut off their ſtockes cloſe by the earth, and fill vp the pathes with dung, without euer going about to hide or couer the plants in the earth, and ſo ſoon as they grow, they muſt be well wedde round about and clenſed from weedes, and vnderdigged, or lightly digged ſometimes in ſommer round about, not comming ouer neere the rootes in any caſe: and they muſt be watered alſo on euenings, when it hath beene a very hot day, and when they haue put foorth ſciences for one or two yeeres, then going ouer them all, leaue not moe than one ſcience to euery plant, and let it be the ſleekeſt, beſt liking, talleſt, and comelieſt of all the reſt, cutting the other off cloſe by the ſtocke. As theſe ſciences ſhall grow on, ſo ſtill picke off cleane from them the ſmall ſuperfluous woode growing vpon them vpward, and euen cloſe alſo vnto the ſtocke: and this muſt be done in March or April, and then muſt ſome ſmall prop or ſtay be prickt downe at the foote of euery wilding, for to direct and guide it by, tying them both together with wreaths of graſſe, but putting moſſe or ſome ſoft thing betwixt them, that ſo the hardnes of the prop may not gall it when it ſhall be growne thicke. And thus you ſhall order and husband them till the time come when you muſt remoone them, if rather you make not choice to graft them vpon the place as they ſtand. When through forgetfulneſſe you ſhall haue left your wildings or plants growen vp of ſeedes for two or three yeeres vntaken vp, you muſt furrow them as hath alreadie beene ſaid, but with deeper digged furrowes, and then you ſhall not breake the rootes ſo much: and it will be fit and conuenient to cut off their branches vpward, as occaſion ſhall require.

There are found kernels of peares or garden apples that haue beene

beene gathered from trees that were sometimes wilde ones, or growen vpon trees, which haue already beene often times grafted, which bring forth very straight trees, and also of comly wood, as if they had beene grafts from the beginning, not hauing any pricks or thornes, to argue them euer to haue beene wilde. Such yoong trees if you will remoue them as they are, or plant them out of their nurserie, without other maner of grafting them, they will not faile to bring you good fruit for the taste and eating, as also to make cyder of, but the best fruit doth alwaies come by grafting: for the fruit comming vpon grafting doth alwaies retaine a better forme, and groweth more and more kinde, and withall much the greater: but that which groweth of a kernell doth change as oft as the tree is changed which beareth it. And besides you must note, that although all trees which haue a strong fruit, growe better of kernels than of boughes; yet so it is, that a late seed doth bring foorth but an ill-fauoured plant, especially the sayd seed being put besides his familiar and well pleasing ground.

Fruits growing of grafts doe alwayes keepe a better form and fashion than the other comming of plants.

Fruit comming of a seed plant.

The fifth Chapter.

Of plants, sciences, and shoots.

THe little sciences of chery trees growen thicke with hairy roots, and those also which grow vp from the roots of the great cherrie trees, being remooued, do grow better and sooner than vpon stones: but then they must be taken away and planted whiles they are yoong, as whiles they be but two or three yeeres olde: for when they are growen thicke they prosper not so well: and againe, if you stay till they be growen grosse, in remooning of them you must then loppe them, and strippe them cleane of their branches, setting their great end in the earth the depth of a foot, and after treading downe the earth, and pricking downe withall at the foot of euery plant a little stake to holde them fast, and to let the windes and whatsoeuer other thing from harming them. But specially you must see that you cut not sciences at any other time than in Winter: for that moisture and coolenesse (during the time of Winter) is a meanes to conserue and keepe them, and thereupon also they grow and bring foorth their fruit the better afterward.

Plants of cherrie trees vpon sciences.

The mulberrie tree groweth after the same maner of little sciences, although the best way of planting it be by taking a twigge thereof from the great branches which are cut from the old tree, of the length of a foot, and setting it good and deepe in the ground, and that in such sort, as that the ground may couer it, three or foure fingers, and this done, you must see that in Summer it be watered diligently.

The mulberie tree.

Filberds in like maner doe growe of small shootes, which growe foorth of the rootes of good filberd trees that are well rooted: these

Plants of filberds.

sciences

ſciences muſt not haue their branches cut off when they are remoued, except they be growen very great and full of branches: but three yeeres after that they are remooued, if they doe not proſper and grow faire, you muſt cut them cloſe by the ground, and they will put foorth a buſh of ſtraight ſciences, very ſmooth and neat, and of theſe you may chuſe whether you will ſuffer the faireſt onely, or all together, to grow vp and continue.

Plants of the oliue tree.

The ſciences of the oliue tree which you intend to tranſplant, muſt be long and faire ones, and full of groſſe and thicke moiſture, ſo as that they may be taken and graſped in the hand, and the barke thereby nothing hurt. They muſt be drawen ouer with dung mixt with aſhes, the head and the foot, and after layd in the earth, as they were vpon the tree, the lower end more downward and into the earth, and the higher end more vpward and looking into the aire, for elſe they will not take at all: and this muſt be a general obſeruation in tranſplanting of all maner of ſciences.

Plants of plumbe trees.

The ſciences of a well ſtringed root of a good plumbe tree not grafted, doe yeeld, being tranſplanted, a fruit no whit inferior vnto that of the chiefe and principall plumbe trees, from which you haue taken them. But and if the old plumbe trees be grafted, you muſt alſo take graftes and graft them in other plumbe trees or wilde cherrie trees, or vpon ſower cherrie trees, and not to vngraft ſciences to tranſplant them.

French plumbs.

Garden plumbs and hartlike cherries doe not grow naturally, being planted of ſciences, but deſire rather to be grafted of grafts.

The ſixth Chapter.

Of pricking downe or faſtening in the earth of ſmall or great branches.

THe ſprig or plant taken from boughs or branches doe grow more ſpeedily and come to better perfection, than the ſeed of kernels, or the ſetting of ſtones, eſpecially if it be put a little beſides his owne ground and ſoile, and of this ſort are fig trees, quince trees, and pomegranate trees.

The maner of pricking downe of ſprigs of mulberie, fig, quince, pomegranate and plumbe trees.

When a man is diſpoſed to pricke downe ſome ſmall ſprig of a mulberrie, fig, quince, cornell, pomegranate and plumbe tree, or many ſprigs of all theſe kindes and their diuers ſorts, he muſt cut them off betwixt the firſt of Nouember and the latter end of December, or a little after: and he muſt ſee that theſe his ſprigs be faire and wel fauoured ones, hauing a ſound barke, full of little eyes, and as thicke as a ſticke or thicker. He muſt chuſe ſuch as be ſtraight and full of moiſture, conſiſting of one onely rod, and of yoong wood, as of ſome three or foure yeeres old, and that they haue alſo as much olde wood

as they haue yoong : and they must be sharpened like a stake for the value of the length of halfe a foot, but the barke must be left on vpon one side, that their end which you meane to put into the ground, must be writhen and steept in water : or else you must cleaue it a little in quarters, and make it stand wide open and gape, with a beane in the cleft; or else some pease or little small stone put in the midst thereof, and so pricke it downe in the earth a foot deepe : or else set it in a little boxe of pease full of water, and so put them all into the ground together. The branches must be gathered vpon a tree that is a good handfull thicke, and hath borne fruit : they must likewise be verie sound, and they may be watered with a pipe, which goeth downe vnto the roote. Obserue and marke well the place, nature of the soile, and aspect or situation of the tree from whence you haue gathered the branch, to pricke it downe on the same side, the like soile and the same situation, and lay vpon it some Elder tree, if so be that you would not haue it to shoot vp into a tall tree, but to continue alwayes low : the branches being such, they will take the better and not breake in the gathering.

To plant the fig tree after the maner of the Genowais.

To plant the fig tree after the maner of the Genowais, which shall beare fruit within three yeeres after (and it may be thus planted all Sommer time) there must be taken a fig tree branch that hath borne fruit two or three yeeres, and that either hauing leaues and fruit vpon it or not : it must be sharpened and cut biace, and pricked thicke about that end which shall be set into the ground, and afterward planted in a pit halfe a foot deepe; in such sort as that the toppe of it may abide aboue the ground with three or foure of the little eies, and be couered with straw for sixe dayes, and watered euerie one of those sixe dayes : afterward let it be vncouered, because by this time it will haue put foorth, and in the end of the yeere towardes the moneth of Februarie, you must cut off that which is put foorth close by the earth, and after that it will shoot so mightily as that it will beare fruit the second yeere.

The seuenth Chapter.

Of the maner of making sciences for to plant.

FOR to make sciences of diuers sorts which you may plant and set according as you shall haue need, cut in the Winter some great tree, if it beginne to be yellow or waxe bleake and pale, and whereof you desire to haue increase : saw off some stockes of the thickest branches into truncheons about the length of a foot, and make a furrow in some verie fat ground, and of that depth as that you may set your truncheons in them endwayes, the earth cast vpon and couering them some three or foure fingers, and prouiding that being

thus set in this furrow they may stand halfe a foote one from another: couer them well and water them in Sommer if there be neede, and weede them verie well: in space of time they will put foorth sciences, which you may remooue when they haue taken roote some two or three yeeres: but and if they haue not as then any rootes, set them good and deepe into good earth, that so you may cause their rootes to grow. And these sciences will put foorth other which will likewise serue. Marke it that all trees that put foorth branches, if you cut them in winter, they will shoote out abundance of sciences, all which will be good to be planted.

Plants of goose-berrie, red corant and barberie trees.

The barberie, redde corant, and goose-berrie-trees, are planted likewise in winter vpon sciences that come out of their roots, and they must haue some hairie stringes: but and if they haue no rootes there must some be procured to grow out of them.

The eight Chapter.

Of planting of shootes of a yeeres growth.

PRopagating or planting of trees is fittest for such as haue beene planted of sciences, and such as do put foorth sciences and small shootes from their rootes: for this causeth them to beare a more beautifull fruit, and more abundantly, and more durable, because they attract and draw a greater quantitie of iuice out of the earth. For this cause, plum-trees, cherrie-trees, pomegranate-trees, and all other garden trees that are woont to be grafted vpon wilde ones, would be propagated or planted; for in as much as the wilde one doth not draw such and so much iuice, as the grafted tree doth require, it is necessarie that it should be planted. As and if a sweet cherrie tree should be grafted vpon a wilde cherrie tree or one that beareth verie sowre cherries, such a cherrie tree would not continue and last long, neither indeed will it beare sweete cherries, if it be not planted a yeere or two after that it is grafted: and that because the wilde cherrie tree draweth not iuice ynough, to cause the tree to grow, and withall the iuice which it doth draw, is not so familiar or fit to bring foorth and nourish sweet cherries.

To plant foure manner of waies.

There are fower sorts of planting or propagating: as in laying of shootes or little branches whiles they are yet tender in some pit made at their foote, as shall be said heereafter: or vpon a little ladder: or in a basket of earth tied to the bottome of the branch: or in boaring a willow through, and putting the branch of the tree into the hole, as shall be fully declared in the Chapter of grafting.

The time of propagating.

There are likewise diuers seasons for to propagate in, but the best is in the spring and March when the trees are in flowers and begin to grow lustie. The yoong planted sciences or little grafts must be propagated

pagated in the beginning of Winter a foot deepe in the earth, and good manure mingled amongſt the earth, which you ſhall caſt foorth of the pit, wherein you meane to propagate it, to tumble in vpon it againe. In like manner the ſuperfluous ſciences muſt be cut cloſe by the earth, when as they growe about ſome ſpeciall impe, which we meane to propagate: for they would do nothing but rot.

For to propagate, you muſt dig the earth round about the tree, that ſo the roots may be in a maner halfe layed bare; afterward draw into length the pit on that ſide where you meane to propagate, and according as you perceiue that the rootes will be beſt able to yeeld and be gouerned in the ſame pit, ſo vſe them and that with all gentlenes, and ſtop cloſe your ſcience in ſuch ſort, as that the wreath which is in the place where it was grafted, may be a little lower than the ſcience of the new wood growing out of the earth, euen ſo high as it poſſibly may be. If the tree that you would propagate ſhould be ſomewhat thicke, and thereby the harder to plie and ſomwhat ſtiffe to lay in the pit, then you may cut the ſtocke almoſt to the midſt betwixt the roote and the writhen place, and ſo with gentle handling of it, to bow down into the pit the wood which the grafts haue put foorth, and that in as round a compaſſe as you can, keeping you from breaking of it; afterward lay ouer the cut with gummed waxe, or with grauell and ſand.

If there be manie ſciences and impes in the plant which you would increaſe, multiplie and propagate, and that all of them by hap or caſualtie doe breake in propagating of them, the remedie will be to ſet the tree ſtraight vp, and to couer the rootes againe with the earth that was about them before, and which you had taken away, and then to cut all the broken ſciences a little vnder where they are broken, and to leaue them ſo vntill another yeere, when they ſhall haue put foorth new ſhootes, which the Winter following you may propagate: but and if of all thoſe ſciences there remaine ſome one not broken, goe forward and propagate it, cutting cloſe by the ground ſome of the writhen place, and of thoſe ſhootes which are not broken. In propagating of them ſee that you lay good quantitie of the ſciences of your branches into the pit: couch them there very round, couering them with the earth, which you caſt vp in making the pit, after that you haue firſt mixt it with good fat mould: and tread it downe by little and little aboue, and looke that none of the ſayd ſciences doe riſe againe after you haue ſo troden them downe. This being done, ſet right vp all the endes which ſhall come out of the earth, and that ſo high as you can; and ſo let them reſt for three or foure yeere, before you furrow them, euen vntill the rootes haue taken earth, & be already become full of hairie ſtrings: you muſt pricke ſtickes about them, for to handſome them, taking heede that you breake them not. Three

or foure yeeres after you muſt doe the earth from them, and that in the beginning of Winter, and hauing cut in ſunder all the branches that haue put foorth hairie rootes together with the ſtocke, that is, aboue the writhen place, you may plant euerie one of them where you pleaſe, to abide and continue there for euer; not but that you may leaue ſome one of them ſtill ſtanding in the ſame place, if it be fit and good for it, and then you may not pull from it his hairie roots, as you doe from the other. If theſe plants of graftes be growen thicke alreadie, and full of branches, then when you haue taken them vp, you muſt cut off the branches before you plant them, and then after they haue beene remoued, they are free and reclaimed, and all thoſe which ſhall grow of them afterward will alſo become free and reclaimed. Againe, if you would prepare the ſtocke from whence you propagated your ſciences, and dreſſe it anew after that you haue cut off all his armes, let it alone with his cuts and grafts, and out of thoſe cuts it will put forth other ſciences, of which you may make other free and reclaimed trees propagating them, and taking them vp at the ende of three or foure yeeres. No ſciences are propagated but ſuch as haue no rootes of their owne; for and if they had rootes by themſelues, then they ſhould be taken vp and planted againe with the ſpade, and not propagated.

Sciences fit for propagation.

The ninth Chapter.

Of grafting yoong plants, and other trees of diuers ſorts, diuers wayes and at diuers times.

TRanſplanting and propagating of trees maketh them and their fruit both verie faire and great, but yet grafting doth excell both them in this kinde; for by grafting, not only wilde trees are flattered and ouercome, and thoſe which were barren made fruitfull, thoſe of an ill taſte become delicate; the late bearing, bringing foorth an early fruit, and thoſe which were earely, to be late: but alſo the fruit growing thereby, are fairer and better fed: adde further, that grafting doth often times bring foorth and beget trees and fruites of great admiration; as we ſee in apples, peares, and many other fruits, which do alter both in colour and taſte by the skill and cunning ſhewed in grafting. Furthermore it cauſeth, that not onely one kinde is changed into another, and that diuers fruits doe agree together and that vpon one tree: but that ſtrange and forren trees doe come vnto vs; and ours are conueyed vnto other countries.

There are fiue principall ſortes of grafting. There is one way to graft in the barke, that is to ſay, betwixt the wood and the barke: and this is but in trees that are great and of a good age, hauing a hard and firme barke. There is a ſecond way to graft in a cleft, that is to ſay, vp-

on

on a ſtock that is clouen : and this muſt be vſed in yoong trees, for old ones doe not eaſily admit any cleft in their ſtocke. The third way is to graft in a whiſtle or pipe : and this is by taking the barke of one tree, cut in manner of a pipe, to be faſtned to the bough of another tree. The fourth is to graft the bud in manner of a ſcutcheon. And the fift is alſo to graft in the bud ; but of theſe in particular in his proper and fit place. Before we goe about to graft any thing, we muſt conſider whether the ground or countrie be fit for pippens or ſtones, and what trees are beſt laden there.

The beſt is to graft the ſame kindes together, although grafts and buds may take as well in trees of diuers kindes, but then ſuch graftes come not to ſo good an end, ſeeing it is impoſſible that two differing ſappes ſhould agree, ſute and carrie themſelues ſo well in all points the one towarde the other, as and if it were in trees that are paires or of like ſorte : adde hereto that the fruit doth retaine and follow the nature of the tree whereupon it ſhall be grafted, rather then the graft : and ſo after a ſort becommeth degenerate and eſtranged from his owne nature, which maketh me that I regard not the graftes, which are woont to be made vpon elmes : for the fruite that groweth thereon doth keepe the taſte and ſauour of the elme, which is not very toothſome: and yet I ſet leſſe by the graftes that are grafted vpon the colewoort ſtalke, or the white thorne, or gooſeberrie tree, vine branches, roſe trees, or ſuch like : for beſides that ſuch graftes are nothing durable (as being made vpon a ſubiect of a more feeble and infirme nature then the graft it ſelfe which is ſet to them) (wherefore the contrarie courſe is that which is to be followed at all times in grafting) the fruits that come thereof, will be either of no taſte, or elſe very vnſauoury in the eating. Notwithſtanding, although the hardeſt and moſt ſolide yoong plantes be to be preferred in the matter of grafting : yet ſo it is that if you graft in yoong ſtocks of a ſoft and moiſt nature, as vpon the poplar and beech tree, and ſuch like, the graft will grow the ſooner, but there is not any profite ariſing, and ſuch grafts are not dealt in by any but by gardiners, which either affect curioſitie or deceit, as deſiring to haue grafts often, rather then for any thing elſe. It were better therefore to graft in trees of the ſame kinde, or elſe if you ſhould graft in trees of diuers kinde, yet to chooſe thoſe which are neereſt vnto the nature of the graft, which is the commanding partie, and whereunto the plant ſhould verie neerely aſſiſt and be commanded by, notwithſtanding that it is the feeder of the other. And in any caſe you muſt graft the trees that beare timely fruites, vpon others that beare timely fruit, and the late fruites vpon the late fruits.

And although that by the aſſiſtance and helpe of grafting, men bring in infinite numbers of monſtrous thinges as well in trees as in fruits, mingling diuers kindes together, yet we muſt not thinke that

we may graft all sorts of grafts indifferently vpon all sortes of trees for neither will the **Oke** admit the Peare tree, nor the Fig tree or Oliue tree : and on the other side the Pine tree, Firre tree, Cypres tree, or generally any other kind of tree that yeeldeth gum, oile, licours, pitch or Rosin, will not admit the coniunction or grafting of any tree vpon them, as *Plutarke* teacheth in his second booke of table talke, because they are fat, and cast out an oilie humor, which (as all other sortes of oiles) ie enemie to all manner of plantes : in so much as that there is no redier a meanes to kill such a tree as you would haue to die, as likewise Bees, then to annoint them with oile : adde further, that the trees which yeeld the Perrosine, haue so thin a barke, as that they cannot procure any firme or fast footing or meanes to receiue the Sap, or to incorporate themselues with the grafts, which should be set into them, as it falleth out with all wood which hath a verie moist and soft barke : for thereby is hindered the growing of the graft vnto the parts which are vnder the barke. I adde yet further that as men and women which are verie fat, do not beget or beare children, because that spending the greatest part of their nourishment in the grossenes of their body, they leaue no profitable superfluitie to make seede of : in like sorte trees which drop pitch and Rosine, spending all their substance and nourishment about the making of themselues great and thicke, they accordingly grow tall and thicke, but they beare no fruit at all, or else but a verie little, and that late in the yeere before it come to his full ripenes : wherefore it is no shame for a stranger, not to be able to liue there, where the home bred is scarce able to feede and maintaine himselfe. Trees that haue a verie hard and solide wood, as Boxe and such other, or which haue a verie tender barke, are not fit for grafting: for the one by reason of their great tendernes cannot hold the graft fast and close enough, and the other through their great hardnes doe wring and choke the same.

The time of grafting.

It is good to graft about the beginning of December or somewhat later, as in mid-Ianuarie, according as the weather is inclining vnto coldnes or otherwise, especially hart-cherrie-trees, peare trees & such as beare earely fruit. As for apple trees and medlar trees, it is better to staie till from the ende of Ianuarie vnto the beginning of March, at such time as they begin to bud, for they are not so forwarde as the other. And at the same time also it will be good to graft the thicke growne yoong plants, betwixt the barke and the wood, with late grafts, or such as haue beene kept in the ground. All monethes are good and fit to graft in, whether it be by graft or bud, the moneths of October and Nouember excepted : but the graft is commonly grafted in winter, as hath beene saide, at such time as the sappe riseth vp into the trees and they begin to bud, for then the grafts do grow and take a great deale better. You may graft likewise in Aprill and May, if

if the grafts be full of little eielets, and that they haue beene kept buried, and their tops out of the ground in cold and ſhadowed places. It is true that the time of grafting muſt be meaſured and iudged of, according to the countrie and qualitie of the region: for in a cold countrie it muſt be later, and earlier in a hot: notwithſtanding to ſpeake generally of all countries, the fitteſt time to graft is from the firſt daie of Februarie, vnto the firſt day of May, taking regard to the nature of the plants: for ſuch as haue moſt iuice, muſt be ſooneſt grafted: and thoſe later which are the drier, the pomegranate and figge tree excepted; which although they be dry, will notwithſtanding be grafted very earely in the yeere.

It is certaine that grafts muſt be gathered in the decreaſe of the moone, to be grafted at the ſame time of the old of the moone, or elſe in the new, or when you ſhall thinke good, alwaies foreſeene that the grafts be gathered in the old of the moone, euen all the grafts that may be: It is true that the graft and the bud doe take better in the new then in the old of the moone, for the moone is the miſtreſſe of ſaps, as of all other iuices, marrowes, and humours, or moiſt things: which ſaps runne betwixt the plant and the graft, and binde the one to the other, being of more force and power in the new of the moone then in the old: by the like reaſon there is a precept to bee obſerued and kept in the matter of grafting, forbidding to graft the winde blowing at ſouth, becauſe ſuch winds are ſharpe and drying. On the contrarie ſhootes muſt be cut in the end of the moone, if ſo be you will haue them to bring forth much more fruit: for being cut at this time they haue their ſap drunke in with ſetled abode, & by being notched onely, they do not ſpend themſelues ſo much as when they be cut off, their ſap then being in his full courſe and ſtreame. Notwithſtanding wee trie it daily by experience, that the gathering and grafting of grafts may be done at anie time of the moone, as wee will declare heereafter.

Some holde them for the beſt daies to graft in, which are the next three or fowre daies before and after the increaſe of the newe moone: but their reaſon taken from the ſap binding, and ioining togither of the grafts with the plants, and from the dominion and rule of the moone ouer the ſaid ſaps, doth ſhut out the firſt part of that opinion: it being certaine and true, that the weaker the moone is, ſo much the weaker alſo are thoſe inferior bodies which ſhe hath power and gouernment of. To graft vpon the wilde ſtocke, hath more hold, & is more durable, then that which is done vpon the reclaimed tree: but the fruite comming of the graft of the reclaimed tree is of a better taſte, as likewiſe the fruite of the graft will be which is grafted vpon a tree which bloſſometh and flowreth at the ſame time, and hath a liuing and moiſt barke, and the reaſon thereof is very apparant.

To graft vpon a wilde ſtocke.

To graft in the barke. It is vſed to graft in the bark, from mid-Auguſt, vnto the beginning of Winter, and alſo at ſuch time as the Weſterne wind beginneth to blow, being from the ſeuenth day of February vnto the eleuenth of Iune: but there muſt care be had not to graft in the barke in a rainie ſeaſon, becauſe it would waſh away the matter of ioining together of the one to the other, and ſo hinder it.

To graft in the ſcutcheon or bud. It is vſuall to graft in the bud in the ſommer time, from about the end of May vntill Auguſt, as being the time when the trees are ſtrong and luſtie, and full of ſap and leaues, as in Iune and Iuly; that is to ſay, in a hot countrie, from the midſt of Iune vnto the midſt of Iuly: but in cold countries, vnto the midſt of Auguſt, after ſome ſmall ſhewres of raine. And if the ſommer be ſo exceedingly dry, as that ſome trees do detaine and keepe backe their ſap, then you muſt waite till that it be returned, and then to graft thereupon ſo ſoone as the grafts are gathered, without hauing any regard either vnto the new moone, or to the old, whether it be in grafting in the ſtocke, or vnto the ſtocke: it is true that is ſpoken, that we can neuer haue hope of much fruite by grafting in the new of the moone, but in the old, beginning the firſt day of the full of the moone.

To graft in the cleft. You may graft in the cleft, without hauing regard vnto raine, when the time is good and coole, as from mid-Auguſt vnto the beginning of Nouember, for the cap and warming ſtuffe which is laid vnto thoſe grafts, do put away the waſte and ſpoile which the raine and blaſting would otherwiſe bring vpon them. It muſt likewiſe be conſidered whether the tree vſe to beare timely fruit or not, and ſo to fit it with a graft of the like condition and quality. Againe, the time and ſeaſon muſt be conſidered whether it bee forward or backeward: for the ſeaſons are not in all yeeres gouerned and caried by an vnchangeable and vnuariable line and meaſure, for either they are more forward or backward, and participate oftentimes one of anothers quality. And in all the ſorts of grafting, it is a ſingular thing and of great preſeruation for the graft, to keepe the plants with cowes dung mingled with ſtraw.

To graft in the euening. As concerning the particular time of grafting, it is better to graft at the euening than in the morning, and neerer vnto the rootes than vnto the boughes, becauſe by howe much lower the graft is ſet, by ſo much the greater ſtrength and force it receiueth from the moiſture of the earth.

Grafting tooles. The furniture and tooles wherewith a grafter ſhoulde be furniſhed, when he is diſpoſed to graft, are a basket to lay his grafts in, clay, grauell, or ſand, or ſome ſuch earth as is ſtrong, to draw ouer the plant where it is cut or clouen, and for the ioining of the graft vnto it: moſſe, woollen clothes, or barkes of willow, for to ioine and tie vpon the lute or earth before ſpoken of, that ſo they may keep both it, and the graft faſt:

faſt: and oziers to tie againe vpon the barks to keepe them firme and faſt: gummed waxe to dreſſe and couer the endes and toppes of the grafts newlie cut, that ſo the raine or colde may not hurt them, neither yet the ſap riſing from below, be conſtrained to returne againe vnto the ſhootes: a handſaw or little ſawe to ſaw off the ſtocke of the plant, a little knife or penknife to graft, and to cut and ſharpen the grafts, that ſo the barke may not pill or be broken, which often commeth to paſſe when the graft is full of ſap: you ſhall cut the graft ſo long as that it may fill vp the cleft of the plant, and therewithall it muſt be left thicker on the barke ſide, that ſo it may fill vp both the cleft and other inciſions if any need to be made, which muſt be alwaies well ground, neat, burniſhed, and without all ruſt: two wedges, the one broader for thicke trees, the other narrower, for the leſſe and tender trees, but both of them of boxe, or of ſome other harde and ſmooth wood, or of ſteele, or of very hard iron, that ſo they may crane leſſe labour in often making of them ſharpe, and they muſt ſerue to ſet wider the cleft of the plant: a little handbill to ſet the plant at more libertie, by cutting off ſome of his ſuperfluous boughes; hauing a handle or helme of iuorie, or boxe, or braſill, or ſome other wood which is very hard.

Trouble not your ſelf with maruelling at them who graft their trees ſo ſoon as they haue planted them, or very ſhortly after: for the yong plant which can attract and draw but weakly, & at hand any ſubſtance for it ſelfe, will hardly beſtir it ſelfe in ſuch ſtrong maner as to feed both the graft and it ſelfe, and therefore the graft cannot but drie vp; and againe, in very deed the poore plant hath iniurie inough to be taken vp from out of his place, and to be remooued to another, without heaping vpon it this new or double charge: and therefore it would not be till a yeere after that it hath been tranſplanted, and then the next yeere it will beare fruit: for it neuer thriues well of his grafting, if it thriue not the firſt yeere; and when as it hath ſped thus ilfauouredly, it will be beſt to cut it off, and graft it againe, but lower.

The tenth Chapter.

How to chooſe, gather, and cut grafts, to graft in the cleft, ſtocke, and rinde.

YOu muſt chooſe your grafts of ſhootes that are a yeere olde or two at the moſt, (eſpecially if you would graft them vpon old trees) which are very newe, and ſo thicke as ones little finger, full of ſap, hauing groſſe and thicke ſet eielets, one of them being neere vnto another, for elſe they will not beare fruit ſo plentifullie: they muſt alſo take ſome part with the old wood, that is to ſay, part of that which was a ſcience the yeere before, and part of the new, that is

to

to say, of the present yeere, so that it must be a peece consisting of two seuerall yeeres : and you must if it be possible gather them from on high, euen from the top, or at the least, from the middest of the tree, and not of the lowest and thickest of the boughes of fruit trees : and they must be in their sap, and taken from that side of the tree which standeth vpon the South; for the East is not so meete and conuenient for vs in this cold country : they must also be grafted in the same situation and goodnesse of soile that they enioyed when they were gathered : for if you graft them in the contrarie to either of these, it will fall out with them, as with plants, so vnaduisedly transplanted, or translated out of a hot country into a cold. Notwithstanding we daily perceiue that such ceremonies are of small effect, seeing that the Sun which is the nurse-father, visiteth euery day all the sides of your tree: and that the earth wherein it is planted, is not lesse nourishing on the one side than on the other. You must not gather your grafts to plant, at such time as the trees begin to flowre, especiallie if the trees whence they be gathered be timely fruit, as cherrie trees, plum trees, medlar trees, almond trees, peach trees, and such like : but the time to gather them is about the 24. of December and not sooner, for then the trees are full and well stored of a milde and sweete humour. But and if you should be constrained to gather them sooner, whether it be vpon occasion to carry them from one country to another or such like, stay at the least till October, at which time the leaues will be fallen from the trees. The men of ancient time obserued and made great ceremonies (as some doe as yet) in gathering of grafts vpon the ending of the moone; and for the grafting of them presently after the change: but we find by experience that vpon all maner of daies they may be gathered and grafted, in what quarter soeuer the moone is found in, aswell for fruits of stones, which are more difficult to graft, as for those of seeds or pippens, which are more easie.

To keep grafts. If you purpose to keepe them after they be gathered, especially such as you minde to graft in the barke (for such grafts may be gathered without eielets about the moneth of October) sticke them down in the ground at the foote of a tree, lay them in a pit of halfe a foote depth, couer them well with earth, marking the place so, as that you may be sure to finde them when the time of grafting commeth. Some put them in earthen pots well stopped and couered, which afterward also they burie in the ground. But and if you would carrie them farre, you must pricke their endes in a turnep that is new gathered: for by this meanes their naturall iuice and humour will be preserued: or else wrap them about with earth, and with a cloth or other thing, that they may be fit to be handled, as that they may be grafted, and not dried away by the winde and force of the sunne : or else shut them close betwixt two canes or reedes, putting them thereupon in honie.

Some,

Some, the better to keepe them, lay them betwixt two tiles, neere vnto some riuer, and couered well with earth. If they be sent you from a far, looke that you go not about to graft them, before you haue first steept them a certaine time in water, somewhat to refresh their iuice, and to set in strength againe their feebled and appalled force.

For to gather them, you must cut them off betwixt the old wood and the new, in such sorte as that there be some of the old wood vnder one of the old eielets of the graft, and so also, as this eielet or little eie may be behinde the graft, when it shall be set out of the cleft of the plant: but and if this eielet or little eie be verie small, then it were better to cut it away. You may make of one long graffe, two or thre trunchions, of which also you may at any time make very good grafts, and so let goe that other with partie woodes, beginning at the greatest eielet of the same, and making incision close vnder it, to fit it, for to be set in the stocke. *To gather grafts.*

In cutting your graft make incision vpon the one side and vpon the other vpwarde on high, let it be well taken downe and squared, that so it may the better close to the stocke of the plant, and likewise let it be so flatted, as that by measure it may be all one in length with the cleft of the plant, when it is put downe into it, and yet it is not required that it should ioine close with the same in all places. *To cut grafts.*

When you cut the grafts of hart-cherrie trees and plum trees, doe not flat them so much as you did the others, for they haue a thicker and greater pith, which you must beware not to come neere vnto, neither vpon the one side, nor vpon the other, saue onelie that at the endes they must be verie flat. And further if the same incision be not made for the taking downe and diminishing of any moe then one side, it will be better, then and if it should be so ordered also on the other side, and cut biace as wedges are which are made for to cleaue wood withall; and so at the end you should take downe both sides, after the manner of the head of a speare. *To cut the grafts. plum-trees.*

In cutting your graft, see well that you raise not the vttermost barke from the wood: and that withall you leaue it thicker then that which is on the other edge within.

The eleuenth Chapter.

Of the preparing of the yoong plant whereon you meane to graft.

NOw when you haue chosen your graft, you must likewise make choise of your plant: which that it may be a faire one, must be right and straight, round not wreathen, of a beautifull colour, a sound, neate and smooth barke, without knots, verie flourishing and moist, and of a tree that hath borne fruite: it must also enioie the like

good

good soile and situation it did before in the place, where you gathered the graft if it be possible, it must bud and blossome at one and the same time, to the end that the new science may take the more easie footing and kinder nourishment there. And if in case the plant were wreathen, ioine the graft cunningly to it, and be sure that in fitting of it you make them both ioine well together, and euer matching the grosseſt plants with the grosseſt grafts.

And in as much as the plants are verie little, therefore you must cut them low and neere vnto the earth, and that rather with a knife, than with a hooke or sawe. Some saie that a sawe doth so shake and loosen the barke, as that afterward it doth not take so easily with the graft, but that makes no matter, because neither the barke nor wood doe euer take with the graft, but the skin or barke which groweth and swelleth vp from the foote of the tree, is that which coupleth it selfe vnto the graft, worketh all, and by it selfe increaseth, making a bodie of the saide foote, not that the sawed wood doth ioine it selfe with the said graft, but abideth dead. If it be of the thicknes of a finger or thereabout, you must cut it to the length of a foote or halfe a foote from the earth, biace wise like the fashion of a gotes foote, for to cleaue it and set therein onelie one graft.

If it be as thicke as a cudgell, cut the stocke round with a sawe vp on high, a foote or two from the ground, to put two good grafts into the cleft thereof: of which afterward you shall cut away the least and weakest when they begin to bud.

If the plant be as thicke as an arme, cut it likewise round some two or three foote high from the ground, for to cleaue it and set therein three grafts, two in a cleft, and one betwixt the bark and the wood, and that vpon the side that hath the most roome.

If it be as thicke as a leg or more, cut it fower or fiue foote high from the ground, and cleaue it crosse, and set therein fower grafts, or cleaue it with one onely cleft, and graft two in the cleft, and two betwixt the wood and the barke: or, which is better, graft them all betwixt the stocke and the barke, when the sap shall be vp: for the wood of such great plantes, doth pinch and wrinche the graft mightily if you put not a wedge of greene wood into the cleft.

After that the plant is cut either with a saw or with a knife, cleanse the wound either with a little sawe knife, or with some other thing, then make it plaine with a knife that is cleane and not infected with any euill smell, and againe make it cleane againe the second time, that so it may not be infected any manner of way with the iron, because the sap of the tree may be corrupted by it, then choose out the best place in all the stocke to fasten your graft vnto, without any care of making the cleft, on what side soeuer it be. I speake this because it pleaseth some to affirme, that the tree ought not to be clouen on that side

ſide that the winde ſtandeth, at ſuch time as they go about to graft it. It is true that and if the winde ſhould prooue great, & withall at north-eaſt, that then you muſt turne your backe vpon it and ſtand betwixt the winde and the cleft, at ſuch time as you are fitting and putting in your graft: becauſe it is ſharpe and ſcorching, verie dangerous vnto all ſortes of plants, as alſo fruits of what condition ſoeuer they be, but chieflie when they are bloſſomed.

Before you make wide the cleft with your wedge, binde and tie with two or three turnes about with a wickar drawne verie ſtraite your tree foote vpon the place where you intend to make your cleft, that ſo your tree foote maie not cleaue too farre, which is oftentimes the cauſe that grafters take not, the cleft being ſo open, that it cannot poſſiblie ſhut againe and grow together, and ſo by that meanes breatheth out whatſoeuer it hath of life in that place, and both the graft and the foote do thereupon alſo periſh: but this happeneth oftеſt in plum-tree ſtockes and branches of trees, becauſe they are more ſubiect to cleaue thus, than any of the other ſorts. Great trees and ſuch as yet go beyond the forenamed meaſures, cannot be grafted by a cleft in the ſtocke, but very well in the branches, as we ſee accompliſhed in great apple-trees, and wild peare-trees, for they would be rotten before that the grafts could ſhut and cloſe vp the wound in the ſtocke.

If the ſmall branches be drie and without any ſappe, you muſt cut their ſtockes or armes, and after two or three yeeres, when they haue put foorth new ſciences, graft the beſt, and cut away the feeble and ſtarued ones. And afterwarde when the grafts haue put foorth very well, you muſt ſtrengthen and vnderprop them, or elſe wrap them one within another, and tie them with woode amongſt, for feare that the winde ſhould breake them: or elſe if it be a good and well reclaimed tree, let new ſciences grow out of it. And this thing we ſee much practiſed in *Normandie*, *Bretaigne*, and other countries, where they eſteeme of apples and peares to make cyder of.

The twelfth Chapter.

To graft in the cleft.

THe manner of grafting in the cleft, that is to ſay, in the ſtocke being clouen, is proper not onely vnto trees which are as great as a mans legge or arme, but alſo vnto others which exceede theſe in greatneſſe. It is true, that inaſmuch as theſe trees cannot eaſily be clouen in their ſtocke, that therefore it is expedient to make inciſion in ſome one of their branches, and not in the maine body, as we ſee to be practiſed in great apple-trees and wilde peare-trees, and as we haue already declared heere before. *To graft in the cleft.*

To

To graft in the cleft you muſt make choiſe of a graft that is full of ſap and iuice, but it muſt not be till from after Ianuarie vnto March: and you muſt not thus graft in any tree that is alreadie budded, becauſe a great part of the iuice and ſap woulde be already mounted vp on high and riſen to the top, and there diſperſed and ſcattered hither and thither into euerie twigge, a newes nothing welcome to the graft. You muſt likewiſe ſet downe and reſolue not to gather your graft the day that you graft it, but ten or twelue daies before, for otherwiſe if you graft it new gathered, it will not be able eaſily to incorporate it ſelfe with the body and ſtocke where it ſhall be grafted: becauſe it will come to paſſe that ſome part of it will drie, and by this meanes will be a hinderance in the ſtocke to the riſing vp of the ſap, which it ſhoulde communicate vnto the graft for the making of it to put foorth, and whereas this dried part will fall a crumbling, and breaking through his rottennelſe, it will cauſe to remaine a cauity and hollow or voide place in the ſtocke, which will be an occaſion of the like inconuenience to befall the graft: and on the other ſide, the graft being as yet new and tender, might eaſily be hurt of the bands, which are of neceſſitie to be tied round about the ſtocke for the keeping of the graft firme and faſt. You muſt furthermore take heed, and ſee that the tree whereupon you intend to graft, haue beene tranſplanted and remooued from out of your ſtocke nurcerie for a long time before, that ſo you may aſſure your ſelfe that his rootes are long ſince well inſeaſoned, and haue fully taken with the earth, and thereby alſo hath ſufficient ſtore of ſap and iuice.

When you are minded to graft many grafts in one cleft, ſee that the inciſion made vpon their ends be alike great, which if you looke not to, it may happily come to paſſe that the cleft of the ſtock ſhall be forced wider on the on ſide than on the other: you muſt likewiſe foreſee that the grafts be of one length, or not much ſquaring, and it is inough if they haue three or fowre eielets without the wrench.

When the plant is once ſawed, and lopped of all his ſmall ſcences and ſhootes round about, as alſo emptied of all his branches, if it haue many; then you muſt leaue but two at the moſt, before you come to the cleauing of it, then put to your little ſaw and your knife or other edgetoole that is very ſharpe, cleaue it quite through the middeſt in gentle and ſoft ſort, firſt tying the ſtocke very ſure, that ſo it may not cleaue further than is need, and then put your wedges into the cleft, vntill ſuch time as you haue ſet in your grafts: and in cleauing of it hold your knife with the one hand, and the tree in the other, to helpe to keepe it from cleauing too farre. Afterward with the ſame hande wherewith you held your tree put in your wedge of boxe or braſill, or bone at the ſmall end, that ſo you may the better take it out againe, when you haue ſet in your grafts. If the ſtocke be clouen, or the barke

looſed

looſed too much from the wood, then cleaue it downe lower, and ſet your grafts in, and looke that their inciſion be fit and very iuſtly anſwering the cleft, and that the two ſaps (that of the graft and the other of the plant) be right and euen ſet, the one againſt the other, and ſo handſomely fitted, as that there may not be the leaſt apparance of any cut or cleft: for if they doe not thus iumpe one with another, they will neuer take one with another, becauſe they cannot worke their ſeaming matter, and as it were cartilaginous glue in conuenient ſort and manner to the glewing of their ioints togither: you muſt likewiſe beware not to make your cleft ouerthwart the pith, but ſomewhat aſide.

The ſappes of the graft and ſtock muſt be ſet one iuſt and euen with the other.

The barke of the plant being thicker then that of the graft, you muſt ſet the graft ſo much the more outwardly in the cleft, that ſo the two ſaps may in any caſe be ioyned and ſet right the one with the other, but the rinde of the plant muſt be ſomwhat more out then that of the grafts on the clouen ſide.

To the end that you may not faile of this worke of imping, you muſt principally take heede, not to ouercleaue the ſtockes of your trees, but before you widen the cleft with your wedges, binde and go about the ſtocke with two or three turnes, and that with an oziar cloſe drawne togither vnderneath the ſame place where you woulde haue your cleft to end, that ſo your ſtocke cleaue not to far, which is a verie vſuall cauſe of the miſcarrying of grafts, in as much as heereby the cleft ſtandeth ſo wide and open, as that it cannot be ſhut, & ſo not grow togither againe, but in the meane time ſpendeth it ſelfe, & breatheth out all his life in that place, which is the cauſe that the ſtock & the graft are likewiſe ſpilt, and this falleth out moſt oft in plum-trees & branches of trees. You ſhall alſo be verie carefull to ioine togither the rindes of your grafts and the plants, that ſo nothing may continue open, to the ende that the winde, moiſture of the claie or raine, running vpon the grafted place may not get in. When the plant cleaueth verie ſtraight, there is not any danger or hardnes in ſloping downe the graft, if you leaue it ſomwhat vneuen, or rough in ſome places, that ſo the ſaps both of the one and other may the better grow and be glued togither.

When your grafts are once well ioyned vnto your plants, drawe out your wedges verie ſoftly leaſt you diſplace them againe. You may leaue there within the cleft ſome ſmall ende of a wedge of greene wood, cutting it very cloſe with the head of the ſtocke: or elſe ſo ſoon as your wedge is drawne out, put ſome ſmall chip of greene wood vpon the cleft of the plant. Some caſt glue into the cleft, as it were to vnite and glue togither the ſaps of the two ſubſtances. Otherſome ſprinkle into it ſugar or powder of cinnamom, or ſom other ſuch ſpice, or ſome ſweet ſmelling liquor, and withal dip the ends of the grafts in honie or in ſome other ſweete and pleaſant liquor, hoping that by this

meanes

meanes the fruits of the trees will retaine the taſte thereof. But how-ſoeuer it is, couer the cleft of the grafting al about with grauell or ſand heaped on like a cauſey: or elſe with gummed waxe, which is better to coner withall than the former, or any other thing that can be learned, and that the cleft may be very well filled, it muſt be laid on two fingers thicke or thereabout, that ſo neither winde nor raine may enter or get in, and you ſhall couer it ouer with moſſe or rie ſtraw, or barke, or the thin rinde of the elme prepared with a little earth, and wreathes of old woollen clothes, or the barke of willow, and tie them on very ſtraight with ſmall oziers: but in binding them take heed that the wreathes doe not ſhrinke to the one ſide or the other, and if you haue not clay, then arme and couer ouer, as hath beene ſaid, the ſayd clifts with gummed waxe: and for want of both theſe, mingle ſmall haie and the earth of the place where you graft in maner of lome or mortar. When thus your grafts ſhall be well wreathed, faſten ſome ſmall boughes about them for to keepe and defend them.

To graft in biace like to a goats foot.

Furthermore, if the ſtocke of the plant whereupon you intend to graft, be not ſo thicke as your graft: you ſhall graft it after the faſhion of a goats foot in this maner: make a cleft in the ſtocke of the plant, not direct but biace, and that ſmooth and euen, not rough: then apply and make faſt thereto the graft with all his barke on, and anſwering to the barke of the plant: this being done, couer the place with fat earth and moſſe of the wood, tied together with a ſtrong band. And to the end that the tree may not be hurt either of the winds or other things, ſtick down neere vnto it, ſome pole of wood for to ſtrengthen and beare it ſtedfaſt: they are greatly to be blamed for their fault committed, who hauing faire wilde trees or others (the fruit thereof diſpleaſing them) do cut them very low hauing faire branches aboue, and a body of the thickneſſe of a mans leg, and there graft them, when as fiue or ſixe yeeres will ſcarſe couer the wound that they haue made by ſuch their grafting: whereas they might as eaſily haue grafted vpon the branches, than they had not beene aboue a finger thicke, and would haue growen better and brought more profit, becauſe that and if you haue foure branches, you may make as many grafts, and theſe will beare fruit the ſecond yeere.

The thirteenth Chapter.

Of grafting in the ends of branches.

FOR to graft at the end of ſuch branches as haue goodly new wood, and great ſciences on high, although the tree haue beene grafted before, and that it be as yet not thorow growen, take graftes of what ſort of tree you will, and cut ſome of the ſciences off from the high parts of the tree where you minde to graft: and, if the grafts

grafts ſhould bee thicker then the ſciences, then graſt them after the manner of the goats foote, as hath beene ſaide alreadie of ſmall plants.

And if the ſciences be of the ſame bignes with your grafts, then cut them betweene the old and new wood, or a little higher or lower, and cleaue them a little, & cut the graft of the like thicknes to the ſcience which you haue cut off, making but a ſhort inciſion, and reſeruing the barke vpon both ſides, and looking that both the ſides be of equall thicknes, then ſet your graft thus fitted into the cleft: and that ſo, as that the barkes of both ſides the graft, may ſtand euen with the barks of the branch. And for theſe grafts it is ynough, if euerie one of them, haue one good eielet or two aboue the wreathing: for to leaue them any longer would not be good: and you muſt wreath and wrap them in earth and moſſe, and couer it ouer againe with woollen cloathes, and tye them to verie ſtrongly, as hath beene ſaid. By this meanes you may procure that one tree ſhall bring foorth diuers fruits, ſo that they be not ſuch as the ſituation of the countrie and qualitie of the aire doe refuſe and reiect: as I haue ſeene ſometimes at *Padua* in the garden of *Meſſire Gabriell*, where one ſtalke of a tree hath borne fruits of diuers ſorts. And there is nothing that ſhould hinder or let vs in this countrie from doing the like, if it be not perhappes, that in ſome places the fauourable furtherance and mildenes of the aire is not ſo correſpondent and anſwerable. Moreouer, if you will graft little plants in this manner, ſee that they be of the ſame thicknes of the grafies, and graft them neere vnto the earth, as ſome three fingers off or thereabouts. This manner of grafting at the endes of branches, muſt be done in trees, whoſe branches haue beene cut off, by reaſon either of ſome great want, or too great abundance of ſappe, and that there be put foorth of their ſtocke new ſhootes, which three or fower yeeres after may be grafted after the manner we haue ſpoken of. Thus *Columella* teacheth vs to graft the oliue tree vpon the figge-tree.

The fourteenth Chapter.

To graft betwixt the wood and the barke.

IT is vſuall to graft betwixt the wood and the barke, when trees begin to put vp their ſap, as about the ende of Februarie, and after vntill Aprill: for then the barke parteth better from the wood, and chiefly this manner of grafting is vſed in thicke plantes, which cannot eaſily be clouen in the middeſt, either croſſe or otherwiſe, and in the ſtockes and branches of trees that haue a thicke and fat barke, as fig-trees, plum-trees, peare-trees, and cheſnut-trees. The grafts that are thus to be grafted muſt be gathered & kept long before, as we haue al-

readie ſaid, leaſt peraduenture we ſhould not meete with trees of late beare about this time, which haue not as then budded, and of which there may be grafts gathered without buds, ſuch as is the ſhort legged or ſhort ſtalked apple tree, and ſuch other like.

In this kind of grafting the plant muſt be ſawed vp on high, and the grafts cut afterward, as hath now alreadie beene ſaid before: but the inciſion of theſe grafts muſt not be of any great length or thickenes, but the barke muſt be taken away a little at the end of them, & faſhioned after the manner of the head of a ſpeare, & as thick on the one ſide as on the other: afterward the ſtocke muſt be very well cleanſed to take away the roughnes & vneuennes of the ſaw, with a verie ſharp inſtrument, that ſo the grafts may grow cloſe thereunto: then thruſt in a ſharpe pointed knife, or ſome ciſers of bone or Iuorie, deepe ynough betwixt the barke and the wood of the plant, and ſo much, as that when it ſhall be drawen out, the cut and fitted ende of the graft may enter therein, and that the graft may ioyne vnto the ſtocke, when it ſhall be ſet therein. This being done, it muſt be couered and wrapt well with grauell or other ſtrong earth and moſſe: after this manner you may pricke in many grafts about your ſtocke according as the thicknes of it will beare. After this manner are Abricots grafted, and apple-trees, almond-trees, peach-trees, ſmall peach-trees, fig-trees, pear-plum-trees, cheſnut-trees, peare-trees, and yoong and little plum-trees, being the thicknes of a little finger, and the thicknes of an arme: as alſo all ſuch as haue their barke ſomewhat ſlender and tender: for in thicke trees which haue their barke verie hard and thicke, this cannot well be vſed, except it be vpon ſome of the branches, which haue a daintier barke and better diſpoſed for the doing hereof.

The fifteenth Chapter.

Of grafting in a pipe.

THe manner of grafting in a pipe, as alſo that of grafting in the barke after the manner of a ſcutchion, is very forward in bearing fruit, but weake and eaſie to be hurt, becauſe it is borne vp onely by the ſtrength of the barke. And therefore it muſt not be practiſed in any trees, except ſuch as are full of ſap, as the Fg-tree; Oliue tree, ſweete Quince-tree, baſtard Peach tree, Abricote-tree, Iuiube-tree, ſowre Cherry tree, Cherry tree and Cheſnut tree: and not at any other time, then after the beginning of Aprill vnto the end of Iune, or if the time be not too hot, in Iuly, Auguſt and September: but ſuch grafte ares not profitable, neither yet comming ſo ſoone to perfection, as thoſe which are grafted in the cleft.

Chuſe therefore in a fruitfull tree, that is full of ſap, a very faire branch

branch that is full of eielets, from whence cut with the point of a knife that is very sharpe, a peece of barke fashioned like a flute, at the least three fingers and a halfe long, hauing one eielet sound and intire. Then doe asmuch vpon some branch of that tree whereupon you meane to graft the same, in such sort, as that the barke which you take away from the place to be grafted, may be of the same bredth, length, and situation or aspect of the heauen, that that is which was cut down from the place where the graft grew, and it must likewise haue one sound and intire eielet as well as the other. When you shall fasten it vnto the place, beware that the barke which you shall fasten, be not wet or moist, and that it doe answere and fit the window, whereout the barke was taken, and that in such sort, as that the eielet in the barke to be grafted, may answere iustly vnto the knob which remaineth sound and vndeminished in the wood, and that this knob goe into the eielet, of the pipe-like barke, which you are about to graft. By this meanes all will agree very well together, neither will there be seen any chinker, gaping or rift, betwixt the commissures and ioints of the two barkes. This done, binde and wreath aboue and below the said grafted barke, with a bande of very drie hempe, being without any manner of moisture, that so the barke may cleaue to the better, and take the sap of the tree the sooner: but still you must looke to it, that your band doe not touch the eielet, or pinch the barke too harde, for this would keepe it that it should not take, and neither the barke, nor the band must be wet.

The Chesnut tree may be grafted after this maner, and profit more by it than any other trees, because the barke thereof is more apt to fashion after the forme of a Pipe, than the barke of any other tree. This way is long in working and taking and withall nothing sure or certain: and therefore I would counsell the Gardiner to trouble himselfe but little at all with it.

The sixteenth Chapter.

Of grafting in the bud after the manner of a scutcheon.

IN grafting after the manner of a scutcheon you shall not varie and differ much from the manner of grafting which is after the fashion of a flute or pipe, saue onely that the scutcheon-like graft hauing one eielet as the other hath, yet the wood of the tree whereupon the scutcheon-like graft is grafted, hath not any knob or bud, as the wood whereupon the barke is grafted in manner of a pipe: wherefore in both the sortes of grafting, we may follow the forme or order which followeth.

In sommer when the trees are well repleniſhed with sap, and that

their new ſciences begin to growe ſomewhat hard, you ſhall take a ſhoote at the end of the chiefe branches of ſome noble and reclaimed tree, whereof you would faine haue ſome fruite, and not maim it of his old ſtore or wood, and from thence raiſe a good eielet the taile and all, thereof to make your graft: but when you chooſe, take the thickeſt and groſſeſt: diuide the taile in the middeſt before you do any thing elſe, caſting away the leafe (if it be not a peare-plum-tree, for the ſcutcheon graft of a peare-plum-tree, would haue two or three leaues) without remouing anie more of the ſaid taile: afterwarde with the point of a knife that is very ſharpe and will cut well, cut out of the barke of the ſaide ſhoote, the patterne and reſemblance of a ſcutcheon or ſhield, of the length of a naile, in which there is onelie one eielet higher than the middeſt, together with the reſidue of the taile which you haue left behinde: and for the lifting vp of the ſaide graft in ſcutcheon, after that you haue cut the barke of the ſhoote round about without cutting of the wood within, you muſt take it gently with your thumbe; and in pulling it awaie, you muſt preſſe vpon the wood, from which you pull it, that ſo you may bring the bud and all away together with the ſcutcheon, for and if you ſhould leaue it behinde with the woode, then the reſt of the ſcutcheon were nothing woorth. You ſhall finde out if the ſcutcheon bee nothing woorth, if looking within it, when it ſhall be pulled away from the wood of the ſhoote, you finde it to haue a hole within, but more manifeſtlie if the bud be ſtaied behinde with the wood in the ſhoote, when it ought to haue beene in the ſcutcheon. Thus your ſcutcheon being well raiſed and taken off, hold it a little by the taile betwixt your lips, without wetting of it, euen vntil you haue cut the bark of the tree where you would graft it, and looke that it be cut without any wounding of the woode within, after the faſhion of a crouch, but ſomewhat longer than the ſcutcheon that you haue to ſet in it, and in no place cutting the wood within.

After you haue made inciſion, you muſt open it and make it gape wide on both ſides, but in all manner of gentle handling and intreatie, and that with a little ciſers of bone: and ſeparating the wood and the barke a little within, euen ſo much as the ſcutcheon is in length and bredth; you muſt take heede that in doing heereof you doe not hurt the barke. This done, take your ſcutcheon by the end, and the taile which you haue left remaining, and put it into the inciſion made in the tree, lifting vp ſoftly the two ſides of the inciſion, with the ſaide little ciſers of bone: and cauſe the ſaide ſcutcheon to ioine and lie as cloſe as may be, vnto the wood of the tree, (being cut as hath beene ſaid) in weighing a little vpon the end of the rinde ſo cut, and let the vpper part of the ſcutcheon lie cloſe vnto the vpper end of the inciſion or barke of the ſaide tree: afterwarde binde your ſcutcheon about

with

with a band of hempe, as thicke as the pen of a quill, more or leſſe, according as the tree is ſmall or great, taking the ſame hempe in the midſt, to the end that either part of it may performe a little ſeruice in wreathing and binding of the ſaid ſcutcheon, into the inciſion of the tree, and it muſt not be tied too ſtraite, for that would keepe it from taking, the ioyning of the one ſap to the other being hindred thereby, and neither the ſcutcheon nor yet the hempe muſt be moiſt or wet. And the more iuſtlie to binde them together, begin at the backſide of the tree, right ouer againſt the midſt of the inciſion, and from thence come forward to ioyne them before, aboue the eielet and taile of the ſcutcheon (croſſing your band of hempe ſo oft as the two ends meet) and from hence returning backe againe come about and tie it likewiſe vnderneath the eielet, and thus caſt your band about ſtill forward and backward, vntill the whole cleft of the inciſion be couered aboue and below with the ſaid hempe, the eielet onelie excepted and his taile, which muſt not be couered at all; this taile will fall away one part after another, and that ſhortly after the ingrafting, if ſo be that the ſcutcheon will take. Leaue your trees and ſcutcheons thus bound for the ſpace of one moneth, and the thicker, a great deale longer time; afterward looke them ouer, and if you perceiue them growne together, vntie them, or at the leaſt cut the hempe behinde and leaue them vncouered, cut alſo your branch two or three fingers aboue, that ſo the impe may proſper the better, and thus let them remaine till after winter about the moneth of March and Aprill. If you perceiue that the bud of your ſcutcheon ſwell and come forward, then cut off the tree three fingers or thereabout aboue the ſcutcheon: for and if it ſhould be cut off too neere the ſcutcheon, at ſuch time as it putteth foorth his firſt bloſſome, it would be a meanes greatly to hinder the flowring of it, and cauſe alſo that it ſhould not thriue and proſper ſo well: after that one yeere is paſt, and that the ſhoote beginneth to be ſtrong, beginning to put forth the ſecond bud and bloſſome, you muſt goe forward to cut off in biace wiſe the three fingers in the top of the tree, which you left there when you cut it the yeere going before, as hath beene ſaid. When your ſhoote ſhall haue put forth a good deale of length, you muſt ſticke downe there euen hard ioining thereunto little ſtakes, tying them together verie gentlie and eaſily, and theſe ſhall ſtaie your ſhootes and prop them vp, letting the winde for doing any harme vnto them.

In this ſort you may eaſilie graft white roſe trees in red roſe trees, and red roſe trees in white roſe trees, to haue roſes of diuers ſorts vpon one and the ſame roſe tree. You may graft after the ſame manner two or three ſcutcheons, prouided that they be all of one ſide: for they would not be equally ſet together in height, becauſe that ſo they might all become ſtaruelings: neither would they be one directly

ouer another : for the lower would ſtaie the riſing vp of the ſap of the tree, and ſo thoſe aboue ſhould conſume in penurie and vndergoe the foreſaid inconuenience.

You muſt note that the ſcutcheon which is gathered from the ſcience of a tree whoſe fruit is ſowre, muſt be cut in a ſquare forme, and not in the plaine faſhion of a ſcutcheon.

It is ordinary to graft the ſweet quince-tree, baſtard peach-tree, abricot-tree, iuiube-tree, ſowre cherry-tree, ſweete cherrie-tree, and cheſnut-tree after this faſhion : howbeit they might be grafted in the cleft more eaſily and more profitably, although that diuers be of a contrarie opinion. As thus for example :

Take of the grafts of the ſweete quince-tree, and baſtard peach-tree, of the faireſt wood and beſt fed that you can finde growing vpon the wood of two yeeres old, becauſe the wood is not ſo firm and ſolide as the others, and you ſhall graft them vpon ſmall plum-tree ſtockes, being of the thicknes of ones thumbe : theſe you ſhall cut after the faſhion of a goates foot, you ſhall not go about to make the cleft of anie moe ſides than one, being about a foote high from the ground, you muſt open it with your ſmall wedge ; which being thus grafted, it will ſeeme to you that it is open but of one ſide, afterward you ſhall wrap it vp with a little moſſe, putting thereto ſome gummed waxe or clay, as hath beene ſaid before, and binde it vp with oziar, to keepe it the ſurer, becauſe the ſtock is not ſtrong inough of it ſelfe for to hold it, and you ſhall furniſh it euerie manner of way, as others are dealt withall. And this kinde of grafting is more profitable, and ſooner growne vp than that which is done in the forme of a ſcutcheon.

The ſeuenteenth Chapter.

Of other ſorts of grafting vpon all ſorts of trees.

ONe may graft in the bud, by taking vp the bud of a yong ſhoot or plant, and putting it with a little barke in the place of another, which you ſhall haue pulled from the tree, whereupon you meane to graft, binding it there aboue and below in manner as hath beene ſaid of the ſcutcheon-like graft, and this may be done at the ſame time, and vpon the ſame trees.

You may graft all manner of grafts, vpon all manner of trees after this manner : Make two pits, fowre foote euery way, and the one hard by the other, in the one of theſe plant an oliue-tree, and in the other a fig-tree, or any other ſuch like ſort of trees as ſhall beſt pleaſe you : when the oliue-tree hath taken roote, you ſhall bow downe ſuch plants of the ſame as ſeemeth vnto you the faireſt of the reſt, and binde them to the foote of the ſaid fig-tree : this being done, cut away

all

all the other plants of the saide oliue tree, except they be such as you meane in like manner to graft: then cut downe the fig tree, and make smooth and eeuen the cut: after this cleaue it in the middest with a wedge, after which scrape both the sides of the ends of the sciences of the oliue tree, such as the tree beareth, and put them in the cleft of the fig tree, in such manner as that they may reach through, afterward lome the said cleft of the fig tree on the one side & on the other with tough lome, and tie fast within the stocke of the said fig tree, the said plants; in such sort as that a man cannot pull them awaie. Thus three yeeres after the fig tree and oliue tree will grow together, and the fourth yeere when they are well growen, you shall cut and vncouple the plants of the said oliue tree from it, as is done in propagating, so they shall seeme not to appertaine any longer vnto the oliue tree. This manner of grafting is very vsuall in the countrie of *Maus*, where I remember I haue tasted of a grape which had the taste of a nut: because the vine that bare this grape, had beene grafted into a nut tree, and after that manner that I haue now spoken of.

To graft in a cannon.

To graft in a cannon, flute, or cornet, is thus performed. You must raise a long gun or cannon hauing two or three eielets, from of a new and reclaimed plant, that is a finger thicke or thereabout, and cleaue it easily the whole length of it: after you must raise of the barke of som branch of a plant, of the like thicknes, a cannon of the like length to the former, and in place of this latter, you must make fast the foresaide cannon of the said barke of the new branch, as forward and close as it can be set, and the superfluous barke of that wherewith there is nothing intended to be done, is bestowed vpon this thus grafted to defend it: after this it is tied aboue and below the eielets so carefully, as that they may not be hurt, then you must cut away the wood which is aboue the roote, and worke it ouer with gummed waxe all along the seames, and at the end.

To graft in the bodie of a tree.

To graft in the body of a tree is thus: you must pierce the stocke of a tree with a wimble euen vnto the pith, and afterward clensing the hole of the wimble very well, you must by force put a graft thereinto, which hath two or three eielets within, and then after that close vp the hole very sure with waxe.

To graft vpon a willow.

To graft vpon a willow, or colewoort: make in the pole of a willow, or stocke of a colewoort two holes reaching to the marrowe or pith, either halfe a foote from the other, set therein as it were by force euen in either of them, a graft of such fruite as you your selfe will, hauing their barkes scraped off, and this in such sort as that the holes be stopt all of them therewith: after this you must stoppe the same holes very well with waxe, pricking downe the said pole within halfe a foote of some water, after such a manner as that the grafts may be three fingers vnder the earth, and at the end of the yeere when it hath taken

roote, cut the plant in peeces, and plant euery graft where you your ſelfe will.

To graft in a crowne.

Thus you may graft in the crowne: you muſt cut off the bodie of a great tree, rather then a little or thinne one vp on high, but yet it may not be old, though it may haue a hard barke rather then a ſoft and thinne: afterward you muſt open it vp aboue on high, in three or fowre places, in the cut of the barke of the ſaid ſtocke: which done you muſt with the helue of a penknife of bone being very ſharpe pointed put in euery one of thoſe opened places a graft, gathered from the moſt eaſterly part of his owne tree, then you muſt ſtop and couer well with tough lome or claie the wound that is aboue, and lay a good cap vpon it, ſo as that neither the raine may be able to waſh and corrupt it, neither yet the aire to drie and chinker it: after this you muſt tie the tree with a coard or band neere vnto the place where the tree was ſawed off, that ſo it cleaue not, then you muſt thruſt in your wedge betwixt the barke and the woode, after which, it remaineth that theſe grafts be fitted to ſet round about the bodie of the tree, one diſtant from another, no leſſe then fower fingers: then for the ſhutting vp of the matter, taking away the coard or girth; you muſt tie the barke with a companie of oziers, being of that length as that they may goe about the body of the tree three or fowre turnes and doubles, that ſo by this meanes the grafts may be garded, and ſtande faſt againſt the windes and whatſoeuer other violence: and againſt the bodie of the tree you muſt ſet a ſtake and prop, for to beare it vp and ſtaie it, taking away all the ſhootes that are about it: bicauſe that by how much the number ſhall be the leſſe, by ſo much the more will the ſappe procure the ſtrength and growth of boughes.

To graft in a ſcience.

Some doe graft in a ſcience after this manner: they make way into the tree, and that to the verie pith thereof with a penknife, and after grafting a plant therein, ſtop it vp cloſe with waxe. Otherwiſe, and the likelier, ſome take a ſcience of one ioint, and writh it, afterward taking from it his ioints and barke, and ſo graft it vpon a ſhoote as thicke as it ſelfe, and it taketh quickly.

To graft in a morſell.

To graft in a morſell, you muſt take in the moneth of March a peece of the thicknes of ones thumbe, and ſufficient broad and long, togither with the eielet & ſcience belonging thereto, and ſo very ſpeedily graft it altogither vpon the branches of another tree, cleauing the barke into three or fower, and faſtening it thereto verie cloſe and ſtraite, and vnto the head of the ſtocke, if ſo be that the morſell go into the barke of the other, without hurting of his owne barke: it being thus grafted, will take without any other thing or preparatiue: notwithſtanding it would doe no euill to put tough lome or earth tempered thicke vpon the ſaid ioint, and to tie it wel with ſome little peece of woollen cloth about the morſell, not touching the eielet in any caſe.

In

In Iune and Iuly you may graft in this manner on high vpon branches without vsing of any band thereto : and when this morsell hath well taken, some do vse to cut off that part of the branch that is aboue.

Some graft vpon poles after this manner : with a french wimble they pearce a pole of willow, or other white wood in many places, but with this caueat that the holes be halfe a foote one from another : afterward they put in these holes thus pearced great store of shootes of such trees as they are disposed to graft, and thus they set them in the ground, in such sort as that nothing but the end of the shoot is seene: after which, if they take, the pole is broken, and they remooued into other places. *To graft in poles.*

Some there are that make impes of peare trees and apple trees in a greene lath of witch hazell, where they put their grafts, betwixt the barke and the wood, and going afterward to choose a moist place, therein they burie the saide greene lath halfe a foote deepe, leauing the shootes a foote long, of which they gather some impes, which they cut away, as also the band of the lath where they are grafted, and transplant them into other places, where it liketh them best : but this is not counted the surest and most infallible way.

In *Normandy* likewise they make plants of sprigs and new branches growing vp frō the feet of peare trees & apple trees, these they cleaue in fowre quarters, and in the midst of them they put the end of a barly eare, or else a beane, and are reported by that meanes to breede good and naturall trees, without any other manner of grafting of them : but I ame of opinion, that neither the beanes nor yet the barlie doe anie good for the helping of them to take roote, because that commonlie such stocks as are planted doe not put foorth roote at the ende of the foote, but higher, as almost euen at the top of the earth, there being the most nourishing part of the earth.

Some put yoong branches and sprigs into the ground, yea and the thin rindes of plum trees, which afterward take roote, and thereupon they plant abricots, but this commonly hapneth in a moist, good, and fruitfull soile.

Some do ordinariely plant stockes of the gardenquince-tree, and graft peare trees thereon, as also apple trees and great peaches, the fruites whereof taste as if they were peach plums, but they must be grafted halfe a foote within the ground, because they neuer haue anie faire trunke, and being grafted thus low, the graft will put foorth roots of it selfe, which will make it indure and continue the longer time.

Some haue likewise found out a way to graft the vine, which is a very singular and profitable thing, for hauing a vine that is not of a good plant, you may by grafting of it, sooner come to haue fruit, then by pulling of it vp, and planting another in the place. *To graft the vine.*

Some graft vpon the foote of a plant, which is a great fault, because that

that at the moſt from thence they cannot gather aboue two or three impes, putting thinges alſo in aduenture, as well by reaſon they are not ſure that they will take, as alſo becauſe that the branch is not ſtrong inough to defend it ſelfe from the winde. Notwithſtanding ſeeing that the vine taketh roote of it ſelfe, you may make a triall what it will doe by grafting it vpon a branch after this manner.

Make a great pit, like as if you would burie ſome tree, then make your choiſe from the foote or ſtocke of ſome vine which pleaſeth you not, of certaine branches which you ſhall finde fit and meete to receiue graftes, whether they be new wood, or of two or three yeeres growth: cut them off and cleaue them ſom three or fower fingers euen vp vnto ſome ioint; then ſharpen the other branch which you meane to graft, and ſticke it in the clift of the other ioyning together the rinde of the clouen one on euerie ſide in ſuch ſort as that they may ſeeme to be but one, wrapping round about ſome moſſe, and after binding it vp with ſome packthreed or elſe with oziars verie well: hauing thus done, prepare a place where you will ſet it, and lay downe your graft, after the manner and faſhion that you vſe in propagating: then lay a little horſe dung not throughly rotten vpon the place where you haue ioined the two branches. By this meanes of one vine ſtocke you ſhall make many, turning in the earth vpon your grafts of the ſtock of the vine, as is done when one layeth vines in the ground. Afterward acquaint your grafts with little ſtakes as is vſed in propagating, and theſe impes doe thriue and grow as well as the propagated, and beare fruit as ſoone.

You may likewiſe make the like kind of grafts, vpon pomegranate-trees, nut-trees, roſe-trees, and other ſuch like low and little trees.

The eighteenth Chapter.

Speciall obſeruations of grafting, planting and ſowing of trees, for to haue exquiſite fruits thereof.

Forward or late fruits.

IF you graft a graft that bringeth forth a late fruit, vpon a tree that bringeth forth an earely fruit, the graft will bring forth an early fruit in his kind; as and if you graft a peach vpon a reclaimed mulberrie tree, it will come two monethes ſooner: the ſame will come to paſſe if you graft vpon a vine ſtocke, or a blacke vine vpon a cherrie tree, or a medlar tree vpon a gooſe berrie tree, or reclaimed mulberry tree. The cauſe of this haſtened ripenes is the nature of the tree, whereupon you haue grafted, which being the onelie nurſe to the graft, and being of a timelie fruit in reſpect of the nature of the graft, doth haſten and bring forward the fruit. On the contrarie, if the tree be of a late fruit and

and the graft of a timely, the graft will afterward bring forth late fruit in his kind, and staying after his due and woonted time, as if it be an apple tree vpon a quince tree, the apples will proone to hang on the tree till Nouember: and will take so much after the nature of the quince-tree, as that they will keepe two yeeres. By how much the more you graft vpon a tree of the same kinde and condition that the graft or bud is; as an apple tree vpon an apple tree, a reclaimed one vpon a reclaimed one, or a wilde one vpon a wilde one: by so much the fruit becommeth greater and is of a better taste, as hath beene said.

The graft of the apple-tree.

Graft one apple tree vpon another, and likewise in goose-berrie-trees and reclaimed mulberrie-trees, and you shall haue fruit all sommer time till the beginning of Nouember.

Halfe peach and halfe nuts.

To cause fruit to grow that shal be halfe peach and halfe nut, take an eielet of the one and of the other, and cut them as neer the eielet as you can both the one and the other, and scrape their buttons a little, then ioining them, binde them also verie well together, and after cut away their tops: the fruit growing from these will be halfe peaches and halfe nuts.

One fruite hauing the taste of manie fruites.

You may make one fruit to haue the tast of fowre fruits of his kind after this maner: Take fowre shoots or grafts of fowre differing sorts, but of one kind of tree, as of fowre sorts of peare-trees or apple-trees. As for example of the apple-tree; take the short stalked apple, the globe apple, sharpe tasted apples, and apples of paradise (because that the shoots or grafts must be of one sort of trees) tie them verie well together in such sort, as that their barke may touch one another: afterward couer them with glew or with sand, or some fat earth so close, as that they may seeme to be all one: put them thus in some well digged ground that is full of manure, that so they may take root: the fruit that will grow vpon these, will haue the taste of fowre sorts of apples. It proceedeth of the same cause if you take two grafts, the one of a sowre apple-tree and the other of a sweet, and coupling them together so close and neere, as that they may seeme to be one only; vse them as before, and looke as the grafts were, so will the apples be. In like manner if you couple, ioine and close together in such close and fast manner two small fig-tree boughes, the one of a blacke fig-tree and the other of a white, and so set them, and after that they haue put forth and blossomed, tie them againe, to the end they may incorporate and grow together, making but one stocke, the figs that come thereof will haue a red flesh on the one side, and a white on the other. Some to worke the like effect do put into some linnen cloth the seedes of two sorts of fig-trees, and hauing tied them very strait, dig them in the earth, and when they are growne vp, they remoue the fig-tree which is growne vp vpon them.

Some

Some doe likewiſe make grafts to beare halfe peares and halfe apples, cleauing one apple tree graft, and one peare tree graft, and after ioining the one halfe of the one to the other halfe of the other, and tying them cloſe together, and loming the ioints and ſeames very well with gum and wax mixt together, in ſuch manner as that the water cannot finde any entrance in at their ioints, and when this is done they graft this double graft vpon the ſtocke of ſuch a tree as ſhall fall for their purpoſe: But you muſt thinke that this manner of planting is very hard to bring foorth fruit. Wherefore they which take pleaſure therein, muſt be contented with two ſortes of grafts, and not to plant them but rather to graft them vpõ an other tree of the kind of the ſaid grafts binding them cloſe togither,& ſharpning them very fitly for the purpoſe at the lower end,in maner as if they were but one onely graft.

Cherries without a ſtone.

If you hollow the branch of a cherrie tree taking away the pith, and after ſet it againe it will bring foorth fruit without any ſtone: or elſe thus better: cut off a yoong cherry tree within a foot of the earth cleauing it alſo euen to the roote, take out the pith both of the one ſide and of the other, afterward ioyne them together againe and tie them cloſe with a ſtraite band, and a yeere after that this cherrie tree hath taken, graft therein a graft of a cherrie tree which neuer bare fruit,and the fruit which commeth of ſuch a graft will be without anie ſtone. Otherwiſe, cut off from ſuch ſtone-fruite tree as you deſire, a graft which may be eaſily bended: ſharpen it on the two ends & graft it likewiſe on the two endes vpon two partes of the tree, make cloſe the two grafted places with the moſſe of fat ground, and tie them carefully with a band. The yeere following if you ſee that the two ends of the graft haue taken ſome force and ſtrength from the ſtocke, putting forth ſom buds,then cut the graft aſunder in the midſt, & take cleane from it the thickeſt ſprig that it hath, & let the other grow, and it wil beare in his due time fruit that hath no ſtone. The ſame will come to paſſe if you propagate the endes of the ſmalleſt boughes of the yoong cherry tree, plum tree,or other ſtone-fruite tree, and after that you ſee that they haue taken roote, if you cut off the thickeſt and faireſt twigge and let alone the leaneſt and ſlendereſt. The reaſon and cauſe of this is, for that the ſtone cannot growe, if the tree lacke his pith, but in the tops and ends of little boughes there is no pith: therfore the fruit that commeth of them,whether they be planted or grafted after the manner that hath beene ſaid,will haue no ſtone, euen no more then that which groweth of trees whoſe pith is taken out.

Laxatiue fruit.
Fragrant fruit.

If in the vine, fig-tree, cherrie-tree, or apple-tree, you cleaue a branch which hath borne fruite, and take the pith out of it, putting in ſteede thereof ſome laxatiue or ſoluble thing, and binding it well and ſtraight, you ſhall make the fruit laxatiue, according to the nature of that which you haue put in: and if you put therein ſome ſweete ſmell

or

or pleasant colour, the fruits will smell of and shew the same: and if you doe this in a rose tree, the effect will appeere in the rose: and who so shall put treacle or mythridate in the vine, the wine made rhereof will cure the bitings of serpents; & not the wine onely, but the grape, vineger, branch, and ashes of the branch, will be good against all maner of biting of venemous beasts. *Coloured fruits.* *Fruits having the vertue of treacle.* *Wine against the bytings of serpents.*

To graft speedily, take a graft of one knot and writhe it, and take away the barke with the knot, and after inuest and decke vp therewith some shoote that is of the like thicknes with the graft, and it will take.

To graft a vine vpon a vine: you must cleue it as you do other trees: that is to say euen to the pithe, and afterward putting the graft into the cleft, you must stop it vp with waxe verie well and tie it about verie close: but you must obserue that it is no fit time to graft the vine except it be in the moneth of Februarie in warme places, & in March in cold places, and that when the wine sheddeth thicke liquor and not thinne like water: the like may be done in May and in the beginning of Iune, when the sap or iuice of the vine is all fallen, but in the meane time, you must keepe the grafts that you would graft in cold and shadowed places, that they may put foorth buds and spring. See more heereof aboue. *To graft a vine vpon a vine.*

To haue plums of diuers sorts all the sommer time and vnto November, graft diuers sorts of plums vpon the goose-berrie bush, reclaimed mulberie tree, or vpon a cherrie tree. *Plums at all times.*

To make medlars, cherries, and peaches, that they may be aromaticke in eating and smelling like spices, and that they may be kept vntill new come, graft them vpon the reclaimed and well husbanded mulberie tree as I haue told you, & in grafting of them wet the grafts in honie, and put therein a little of the powder of small spice, as of cloues, nutmeg, and cinnamon, and the fruit will taste of them. *Peaches, cherries and medlars eating like spice.*

To cause medlars to grow without stones, and withall to be sweet as honie, graft them on eglantine, and in the grafting of them wette them in honie. But to haue medlars in their greatnes two moneths before ordinarie, and that one may be better then twentie others, graft them in a reclaimed mulberie tree or a goose-berrie bush, and at the grafting thereof wet the graft. *Medlars without stones.*

To haue peares of *Augusta*, of *Parma*, or of Saint *Rieule*, a moneth or two sooner ripe then others, graft them in a reclaimed mulberie tree, and if you would that they should indure and keepe good vntill new, graft them on a quince tree, that they may come late, and on a reclaimed mulberie tree, for them to come earely. *Peares of Augusta.* *Peares of Parma made to be earlie ripe.*

To haue reclaimed mulberies earely ripe, graft the mulberie on the peare tree, chesnut tree or gooseberrie tree: and to haue the late ripe, as towards Nouember graft them vpon the medlar or quince tree. They must alwaies be grafted in the increase of the moone, and yet *Tame mulberies early and late.* *The time of grafting them.*

yet better three or fowre daies before the first quarter, for how many daies the moone is old when it is grafted, so manie yeeres will it be before the tree bring foorth fruit, as we haue touched before.

Nuts without shels.

To haue nuts without shels, you must take a kernell which is very sound and not any whit hurt, and wrap it in wooll or the leaues of a vine, or in plane tree leaues, that it may not be eaten of ants, set it thus inwrapped, and the nut tree comming thereof will bring foorth nuts without shels: the like may be done in almond trees, if you oftentimes put ashes vnto the foote thereof, or vnto the roots vnder the ground, and this also holdeth generally in all other fruits which haue an outward shell if they be set in this order.

Nuts, plums and great almonds.

To haue great nuts, plums and almonds, take fowre stones of the foresaid fruits, and put them in a pot or other vessell full of earth, ioining the one to the other as neere as may be, and turning the pot and the bottome vpward, make a hole in the said bottome, and the stones shall be constrained to put foorth their sprout vp on high through the said hole, and by this constraint the fowre sprouts will ioine and incorporate themselues together in such sort, as that they will all make but one stocke of a nut tree, which according to his season will beare fairer nuts than any other trees of the same kinde and nature. But for the more easier doing heereof, you must after the fruit is once shaped and fashioned, take away from the nut tre, almond tree, plum tree, and such like, all the small and rascallie sort of fruit which you shall finde vpon them, and so the iuice of the tree will giue it selfe wholly to the remainder: which also by that meanes will be the better fed and nourished, as hauing bestowed vpon them all the substance which was prouided for the others that are taken awaie if they had not beene gathered. Wherefore the case stands plaine in the whole matter of nourishment, whether it be in things that haue life or those which are without life, that the starued or rascallie sort doth come, by the iuice his conuersion and being turned vnto the nourishing of other fruites which are greater: and it cannot be otherwise seeing the distributiue vertue of the trees being occupied about many must needs haue the lesse for euery one, whereas when it hath but a few to feede it dealeth the more bountifullie.

To keepe an oke or other tree greene at all times.

To cause an oake or other tree to continue greene as well in Winter as in sommer, graft it vpon a colewoort stocke.

Written figs.

Write what you will in the eielet of the fig tree, which you meane to graft, and the fig growing thereof will containe the said writing.

That the fig-tree lose not his fruite.

The fig tree will not loose his fruit if the stocke be rubd ouer with mulberries; or if you cause it to be cast about with pits while the seuen starres doe appeare, watering the foote with salt brine and water mingled together equally.

The cherrie tree grafted vpon a base tree.

The cherrie tree will beare a pleasant and sweete smelling fruite, and

and will not be subiect vnto the eatings of snailes, caterpilers and other small wormes if it be grafted vpon a bay tree.

The peare tree of sweete rosesor muske sauoure.

The peare tree that you will graft, will beare a peare smelling like roses or muske if you cleaue the graft which you meane to graft, and put into the cleft thereof a graine of muske, or a dried leafe of a sweet smelling rose, and so graft it. And the like may be done in other fruit trees to haue well perfumed and sweete smelling fruit: by this peece of cunnin skill roses become to smell of muske, and the eielets haue the smell of cloues.

It must stand for a generall rule that neither any graft after it is blossomed, as neither that which is laden with fruit, is to be grafted.

White mulberies.

If the white poplar be grafted vpon the mulberrie tree, it will bring foorth white mulberries.

Grapes in the spring.

The cherry tree will beare his fruit more earlie and before his ordinary time if you lay quicke lime vnto the rootes: or if they be watered oft with warme water: some say likewise that if you graft a blacke vine vpon a cherrie tree, that then the vine will beare grapes in the spring, the reason whereof we haue set downe in the beginning of this Chapter.

Graft Citron trees, vpon pomegranate or mulberrie trees, and the fruit thereof will be of a red colour.

To fashion fruits after what shape that one will.

If you would transforme fruites from their naturall shape, into some other diuers and artificiall shapes, put the said fruites when they beginne to bee somewhat bigge, betwixt two mouldes of plaster or baked earth, within which there are portraitures of diuers sorts, cut and tie them softly, for the fruit as it groweth will take the stamp and impression more and more: but in the meane time you must conuey aire into the mouldes at little holes: for else the fruit would rot within.

The graft that is made vpon the Aller tree or oake, bringeth forth a very strong tree: but if it beare fruit, yet the fruite is of no sauour or tast.

Peaches or almonds written vpon.

To haue peaches or almondes to grow with letters written vpon them: after that you haue eaten the peaches or almondes steepe the stone two or three daies, afterward open it softly and take out the almond, and with a brasse pen or otherwise write vpon the rinde of the almond, what you please, but doe it not to deepe, afterward put the almond againe into his stone, wrapping the said stone about with paper or parchment, and so plant it, and the fruite growing thereupon will be written and in grauen.

Red peaches

To make peaches red: seauen daies after you haue set the peach stone, take it out of the earth againe, and within the opening of the shell put some vermillion or cinnabrium, and then set it againe: It will fall out likewise after the same manner, if you graft the great peach vpon the red rose tree, or vpon the almond tree, or vpon the red damaske

Peaches of one or other colour.

maske plum tree : you may alſo make the peach of ſuch other colour as you will, if according to the manner aforeſaid, you put ſuch colour as you would haue it of within the ſhell of the kernell.

Peaches without ſtones.

To preuent that peaches doe not become withred and rotten, you muſt take away the barke of the ſtocke of the peach tree, that ſo there may iſſue out from thence ſome ſmall quantitie of moiſture, after you muſt draw the place ouer with morter, mixt with ſtraw. Pearce the body of the peach tree belowe, and take away the pith, and faſten within it a ſtopple of willow or corneile tree, and then you ſhall haue peaches without any ſtone.

Fruitfull pomegranats.

Pomegranate trees will prooue very fruitfull : if you annoint the ſtocke of the tree with purcelane and ſpurge ſtamped together.

To make bitter almondes ſweet.

Of an almond tree that is hard and bitter you ſhall make a ſoft and ſweete, if you bare the ſtocke euen vnto the rootes which lie ſhalloweſt in the ground: and water them oft during certaine daies with warme water, before that it bloſſome, and thus the almonds that before were bitter will become ſweete.

To make good muſcadell.

To make good muſcadell : Take an iron wyre and put it in the plant of a ſtocke, which is cut with three eies, vſing the meanes to haue all the pith foorth : after which fill vp the ſaid ſtocke with nutmegs, ſtopping it ſo therewithall that the water may not get in : and the rootes that theſe three eies ſhall beare will be muſcadell rootes.

Nuts with thin ſhels.

That nut will haue a very tender ſhell and a very thicke kernell, in whoſe foote, ſtocke and rootes there are put aſhes.

A nut tree bearing neither leafe nor fruit till midſommer.

To cauſe a nut tree that beareth no leaues before midſommer, vpon midſommers euen to put forth both leaues and fruit together, and withall to haue his fruit ripe and readie to eate as ſoone as any other : fill a pot with greene nuts gathered the ſaid midſommer euen, and make a hole in the bottome of the pot, that the water may runne out, putting it after that vpon the ſaid midſommers euen into the earth. Plant the ſhootes that come of theſe, and you ſhall finde the thing before ſpoken of.

The grafting of peaches.

The grafting which is performed to a graft vpon a tree correſpondent and anſwerable to the nature of the graft, proueth of moſt beautifull growth and moſt fruitfull, and his fruit moſt durable : which falleth not out when this correſpondencie, ſympathie and fellowſhip is wanting : and this is the cauſe why the peach tree thriueth better being grafted in the plum tree then eliewhere, and the peare-plum tree in the almond tree, and there continue a longer time.

The grafting of the pear-plum-tree.

If the cielet of the peare-plum tree and of the almond tree bee grafted together, the kernell of the fruit which commeth thereof will be an almond.

Plums like to the almond.

The plum tree grafted vpon the almond tree beareth a fruit like vnto the almond, and if it be grafted in the nut tree, the rinde or huske will

will be like vnto the nut huske or rinde, but within it will be a plum. Againe if it be grafted vpon a quince tree, it will bring foorth a fruit of a diuers fashion, according to the nature thereof.

Graft a plum tree graft or any other fruit trees graft vpon the fig tree, and you shall haue your fruit to grow without blossoming. *Fruits without blossomes.*

Graft the grafts of an apple tree vpon a sowre peare and vpon the Richardine apple tree, and you shall haue apples of a yellow or straw colour, and of the chesnut tree: and to haue such as will last vnto Nouember, you must graft them vpon a quince tree, and other late trees, and so they will be for to keepe two yeeres. *Apples of a yellow colour.*

Take two grafts of apple trees, the one sowre, and the other sweet, and ioine them close togither when you shall graft them: the apple will taste both of the one and other sauour, as we haue said before. *Apples of two tastes.*

If any tree bring foorth his fruite late, or if it be altogither barren and without fruite, and yet full of leafe and woode: set in the middest of his maine roote, or else in the middest of his stocke about winter, a wedge of greene wood, the yeere following it will beare fruit. The reason is, bicause by the meanes of this wedge, the sap and substance which wandred abroad and imploid it selfe about the bearing of leaues and increase of woode, will draw in it selfe and go a closer and neerer way to worke, conuerting his seruice to the making of fruit. *Late riping fruite.*

You shall haue cherries on many trees which will be good to cate vnto Nouember, if you graft the cherrie tree vpon a reclaimed mulberrie tree, and vpon a wilde one. *Cherries at all times.*

If you desire that the fruit of your grafts should increase in goodnes and surpasse the taste of the common grafts as they are when they are grafted, you must first before you graft them, steepe them in hony tempered with rose water, so long as till they be throughly moistned, and then grafting them, draw them ouer afterward in steed of morter with virgins waxe and other things fit to lute withall: if after this manner you graft medlar trees on goose-berry bushes, and vpon naturalized mulberrie trees, and withall in the grafting wet your graft in honie, you shall haue a hastier or earlier and better fruit. *Sweet medlars.*

Graft chesnut and caliot peare trees, vpon a gooseberrie bush if you would haue them to beare their fruite earely: and vpon the white thorne, for to beare it late, or else vpon the sowre peare tree. *Forward peares and late peares.*

To make apples red, you must water the tree with vrine, or else plant rose trees neere vnto the apple trees. *Red apples.*

Peares will haue no stones, if at the first you picke away the stones and all other grauell from vnder them very carefully, making the ground where the tree shall stand free thereof, and withall lay vpon it at the roots being planted good store of sifted earth, watering it afterward very diligently: but and if the peare tree be alreadie growne vp, and become a perfect tree, you must lay it open to the lowest rootes, *Peares without stones.*

taking away all the ſtones and grauell that is vnderneath and about it, and caſting in the earth againe which you caſt foorth, abroad but after that it hath beene ſifted, and ſome dung put vnto it, ſeeing that it bee watered, after you haue ſo caſt in your earth.

Red Pomegranates. The pomegranate will become very red, if you water the pomegranate tree with water and lee mingled togither.

Sweet pomegranates. The ſowre pomegranate will become ſweet, if you lay about the roote of the pomegranate tree, the dung of ſwine, and water it with mans vrine.

Peaches and quinces togither. Graft the graft of the peach tree vpon the quince tree, you ſhall haue peaches and quinces togither: likewiſe if you graft vpon the peach tree, the graft of the quince tree.

Peaches and almonds togither. The graft of an almond tree grafted vpon a peach tree, or that of the peach tree grafted vpon an almond tree, cauſeth the one tree or the other to bring foorth both peaches and almonds, whoſe rinde and kirnell alſo will be good to eate.

To haue faire fruit of a pippen or kernell. To haue a pippen or kernell to bring foorth a faire fruite and timelier then any other graft vpon the ſame ſtocke, take the branches of the peare tree or apple tree, and at the lower end make little holes, but not cleane through, and not within a handbredth one of another, they muſt be one right ouer againſt another, & haue a graine or two of ſalt put into them, and heereupon the branch laid in the earth with a fewe oates, cutting off the end as is vſed to be done with grafts when they are grafted. If heereupon the branch take and waxe greene, it will beare a fairer and timelier fruite then any other of that kind.

Red apples. To haue red apples, you muſt plant roſe trees or mulberie trees neere vnto the apple trees. Or elſe ſet ſome ſtake in the earth neere vnto the apple tree, and there neere at hand ſet a veſſell full of water, whereupon the ſoutherne ſunne beames may directly beate in ſuch ſort, as that the vapour which ſhall riſe from the water may beate againſt the fruite: or elſe vncouer the apple tree at the foote in the ſpring time, and water them ſundry times with vrine: couering them againe about ten or twelue daies after, and watering them with vrine betwixt times.

Sweet apples. To make apples ſweete, you muſt water the rootes of the apple tree with mans vrine, wherein hath beene diſſolued goates dung, and the lees of old wine.

Great cherries. To haue great cherries, you muſt often breake the cherrie tree.

A fruitfull apple tree. To haue great quantitie of apples, you muſt compaſſe the ſtocke of the apple tree the height of a foote aboue the earth, with a plate of leade taken from the pipe of a ſpout, and when the apple tree beginneth to bloſſome, you muſt take away this band of lead. This banding may be renewed euery yeere, to make the apple tree fruitfull: the like courſe alſo may be taken with the peare tree.

To

To make a tree to beare grapes togither with the fruit of his owne kinde: put the ſtocke of a vine in the foote, and boring the tree cleane through with a wimble, you ſhall at this hole put through the vine ſtocke in ſuch ſort as that there may be two ioints remaining within the ſtocke, and ſo much of your vine ſtocke as remaineth within the ſtocke of the tree muſt be pilled, and the barke taken away, that ſo the ſubſtance of the tree and of the vine ſtocke may more eaſily grow togither: after this, you ſhall ſtop the holes of the ſaide bore verie cloſe, both of the one ſide and of the other, to preuent all danger of water getting in, and at the end of three yeeres, cut off the vine ſtocke behinde, thus your tree will beare grapes and his owne naturall fruite, and both they will grow from the ſame trunke or body. *A tree bearing grapes and his owne naturall fruit.*

Graft the graft of an apple tree vpon a peach tree, and likewiſe the graft of a peach tree vpon a peare tree; and on the contrarie, and you ſhall haue a ſtrange fruite called peach apples, and peach peares. And thus likewiſe ſtandeth the caſe, if you graft (as hath beene ſaide) the graft of a peare tree. *Peaches.*

The nineteenth Chapter.

Of the time of planting and manner of tranſplanting of grafted trees, both great and ſmall.

SOme ſay that it is beſt to plant in the ſpring Equinoctiall (which is the time about the twelfth of March) becauſe that trees at that time, take roote, and bud more readilie, and put foorth the ſooner, eſpecially in cold places. The greateſt part of this our countrey of *France*, doe plant and tranſplant trees before and after the fowre and twentieth of December, at which time we ſee heere in this citie of *Paris* euery wedneſday and ſaturday great ſale of diuers ſorts of trees: and yet in my iudgement this is not the beſt time to plant and tranſplant, bicauſe that trees would not be waſhed nor wet about their feete, at ſuch time as they are planted: but for the time before and after the fowre and twentith of Nouember (which is called the dead moneth) it doth nothing but raine for the moſt part, as we haue obſerued for this ten yeeres ſpace: and although this time were colde as ſome commonly report that for three weekes before this day, and three weekes after, great colde do rule and raigne; then if the colde be ſo great, how ſhould it be but that the rootes of the trees tranſplanted, as alſo other plants ſhould freeze, eſpecially the earth being newly ſtirred, as is moſt euidently apparant in vines. But the beſt time to tranſplant trees, is in Autumne, bicauſe that in Autumne there is as it were a ſhadow of ſommer, S. *Martins* ſommer, and in this time it ſeemeth as though trees would make a new ſpring, as the bloſſoming of ſome trees at the ſame time doth ſeeme oftentimes to *The fitteſt time to plant.*

perſwade, and for that in this time trees take roote much better then in winter, in which time there is nothing almoſt that thriueth. And if the caſe ſo ſtande as that it is fit for to plant great thicke trees, the pit muſt be made ſixe moneths before, and that bicauſe the earth ſhould thereby be corrected, and as it were renewed by the aire and heate, as husbandmen and other workemen know very well which turne their grounds before winter, and all the time thereof let them lie thus tilled, then by a far ſtronger reaſon, you ſhall find that it is much better to plant trees in autumne then in winter. But howſoeuer it be, when you plant any thing in autumne, it muſt be done ſome fiue daies before the end of Auguſt, and in high and drie places men plant at all times and ſeaſons. It is good to ſow or ſet the firſt day of the firſt quarter of the moone, but the 8.9.10.11.12.13.17. and 18. it is not good. If you plant in the decreaſe of the moone, the tree will yeeld the more profit, and fruit will grow the ſooner thereupon, and by how much your planting falleth to be neerer vnto the end and going out of the moone, by ſo much the tree will be of a more beautifull growth, and becomming more fertill and fruitfull: but and if you plant in the increaſing and new moone, indeed your trees will take better and become more durable and laſting, they will ſpread in roote and wood and leaues, but they will giue ouer ſo much the more to beare fruit. If conſtrained by ſome neceſſitie you plant in the new of the moone, then it will be beſt for you to breake off the ſhootes that they ſhall thereupon put forth about the latter end of the moone, and then they will beare their fruits as others doe. Notwithſtanding this limiting and bounding of the time of the moone is not of ſuch warrantiſe, but that the tree may be as profitable at all other times of the moone, as well as either then or elſe in the increaſe and new of the moone.

Some plant in Ianuarie the plants that haue the ſhanke or foote of theis ſhoots cut biace, as alſo the plant that is ſet of ſtones and in a wel tempered place: but in a warme place, men are woont to plant in October, Nouember, and December.

Trees that haue a groſſe thicke roote are planted in October, Nouember, and December: but the ſhootes or little branches are planted in March when they are in ſap.

Trees that haue a great pith, as fig-trees, naturalized mulberie trees, hazell, and ſuch like are planted without any roote, from after mid-September vnto the beginning of Nouember: but other trees which you would plant with roots, muſt be planted about the beginning of December or very ſhortly after.

Groſſe or thicke trees.

Groſſe trees are tranſplanted from one place into another in the moneth of Nouember, and they muſt be freed from ſnailes, and lopt and cropt before they be tranſplanted: for ſo they take the better and put foorth their ſciences verie powerfully: and if in taking of them vp

or

or transporting of them, it happen that the barke of their rootes be broken, you must draw the pilled and vncouered place ouer with good dung or earth, before that you put it into the ground againe, and stirre vp the earth verie well round about where you intend to set them downe againe, to the ende that their rootes may spread and seat themselues to their good contentment, without being pinched or streightned.

Some do remoue from after the beginning of Nouember vntill March when the trees begin to enter into their sap: for the sap once drawing vp a loft, doth forbid all remooving of the tree: and therefore in such case the sooner the better, that is to say, if presently after the leaues be fallen which is in the beginning of winter you goe about it: but in waterie places it is good to stay till Ianuarie and Februarie: but nothing must be done this way when it raineth or when the earth is wet: for it would so harden vpon the drying, as that the roots would be oppressed and choaked.

Yong grafts.

The yoong grafts which you haue grafted in the stocke nurcerie, or elsewhere, must be remooued as soone as the grafts shall haue closed vp the cleft of the plant as some are of opinion: but yet this is hazarded ware, the graft hauing not as yet taken almost any disposition or good liking of the sap of the plant, which being thus againe remooued, is halfe astonished and put out of the high way of his wel pleasing nourishment, and so beginneth to wither, when it commeth to take a taste of his new dishes and prouision: but and if you stay till the graft haue put foorth a faire branch, before you remoue the graft, you shall shun the danger that might otherwise ensue.

To remoue trees.

You must plant your trees againe as soone as you haue taken them vp, if no other weighty matter let you: but if you be put off from doing it, either because it is brought you from far, or vpon some other occasion: you must so soone as they be taken vp couer their rootes with the earth from whence they were taken, new leaues and straw, that so the raine may not wash them, and make them afterwarde to rende when they become drie againe, and to the ende also that the aire and breath either of the winde or of the sun, or yet of the moone may not dry them and suck out the moisture which keepeth their roots in good hart and fit to grow, both these things being very hurtfull, but the rain the woorse of the two.

Sowre cherrie trees cannot abide to be remoued, for being transplanted they will hardly put forth any sciences, especially if they haue their chiefe and principall roote maimed.

Before you remoue great trees, you must lop off their boughes very diligently (as hath beene said:) but as for little ones you neede not crop them, to take off any part of their heads; neither yet to take any of their boughes from them, if they haue not too bushie a head. If

you desire to know a reason wherefore, it is thus: If you leaue the head and tops vpon trees when they are grown somewhat great and thicke, they will stil be sending of their sap vpward not looking to the feeding of the roots, for that the aire attracteth the nourishment of plants, as may easilie be proued by example when there groweth any small tree vnder one that is very great, for there the small tree will not thriue so well, as if it were abroad in the aire and from vnder the shadow, and so that which hath his head cut off wil take root sooner then and if it were whole and vntouched. But if the tree which you remoue exceed not the thickneſſe of a great inche you shall let it remaine whole, because yoong plants take roote more easily than those which are old, and the reason is openly knowne.

If the rootes of the trees which you would remooue, be much longer than is needfull, you may take off the ends in setting them downe againe, and that so much as may fit best for the hole wherein you meane to set them, for so by this meanes they will not be stopt vp of the sides of the hole, but will attract and draw moisture out of the earth for the nourishment of the tree a great deale more abundantlie.

When you remooue any tree, you must lay his roots round about with fat earth, and take heede that the weedie earth which you haue digd or cut away from the pit whither you meane to remoone it, doe not fall in amongst the rootes, for it would put them in danger to be ouerheated: or else that they growing vp againe, might diminish the nourishment of the tree. If it happen that the earth which you haue taken out of the pit be full of wormes which might hurt the rootes, then mingle therewith some lee and ashes. When the roots haue taken foote, trample downe the ground as hard as may be, or else beat it with a pauiers beetle, watering it afterward if it be drie, or else not.

The twentieth Chapter.

Of the place and soile for trees in generall.

THE principall point in growing of trees is to prouide them of conuenient aire and earth, because that these doe cheere and season them, and are the proper subiect of their nourishment. And as concerning the earth that is recommended vnto vs as to bee had in regard and looked vnto more than any thing else, as that it be such as is very murly, temperate in colde and heate, of a meane and middle sort of moisture and fatnesse; for such ground as exceedeth in any one of these things is not so fit for anie fruit tree. This is a rule to stand generall in and for all fruit trees: but as for particular kinds of trees, it is very well knowne that euery particular tree craueth his

ſeuerall and particular ſoile, whence it may gather fit and agreeable nouriſhment for it ſelfe as *Theophraſtus* teſtifieth. In like manner one deſireth a diuers kinde of placing and ſituation from the other. Wherefore the trees which craue the refreſhment of hauing their ſtockes taken vp, doe commonly thriue better in vallies then in high places, as well for that their ſeate muſt not be altogether ſo drained of moiſture as the higher places be: as alſo for that the moiſture which is in higher grounds conueigheth it ſelfe and diſtilleth into the lower and hollow, whether it be raine or any ſpring riſing from thence.

In watrie places you muſt not make your pit verie deepe, wherein you meane to plant your tree; but in drie grounds you muſt ſet them ſomewhat more deepe, neither yet muſt you heape too much earth in vpon thoſe pits when you fill them vp againe, that ſo the raine may the better ſtaie about them and water them.

That which is commonly receiued, as that in good ground there grow good fruits, muſt be vnderſtood with reſpect had to the naturall goodnes, that the fruit hath in it ſelfe, if both the induſtrie and skill of man to husband and keepe it neate, and deliuer it when anie inconuenience preſſeth vpon it, to drie and to ſeaſon it ſo as that it may yeeld his fruit in due time, be not wanting; for theſe failing, the fruit will likewiſe greatly faile of his goodnes, taſte and durablenes, and ſo will falſifie the generall rule aboue named.

Set downe with your ſelfe to remoue your trees, into ſo good a ground or rather better then that from whence you tooke them vp, hauing reſpect to other eſpeciall obſeruations beſides to be obſerued, according as will be required of the particular natures of euerie one.

And if it be poſſible, remoue them into the like ſituation for the receiuing of the ſunne ſhine, vnto that which they were firſt ſet and planted in: and that you may not faile heereof, marke their barke vpon ſuch or ſuch a quarter, and ſet it vpon the ſame againe in remouing of it. But this obſeruation (as I muſt confeſſe) is not alwaies kept, for the reaſons aboue named.

Alſo plant thoſe of a forward ſpring in a late ſoile, and a late ſoile in a hot ground.

The greateſt part of trees doe delight in the South ſunne and to be ſeated vpon ſome ſunnie banke, from the Weſterne winde as being verie contrarie vnto them, eſpecially to almond trees, abricot trees, mulberie trees, fig trees and pomegranat trees, but principally from the Northeaſt winde, becauſe it is ſharpe and ſwithning, verie hurtfull for all ſorts of plants, euen to all fruites of what qualitie ſoeuer that they be; but chiefly when they are in bloſſome, and that becauſe it bloweth from off the ſea, as alſo for that it is halfe North which is verie ſharpe, but not ſo dangerous as the Northeaſt; and ſome ſaie that this winde bloweth once a yeere, as in the ſpring, and that it ſpoileth buds

especiallie those of the vine. *Vnde versus : Væ tibi Galerna, per quam sit clausa taberna.* On the contrarie, chesnut trees, chertie trees that beare a sowre fruit, quince trees and plum trees doe not much affect or sport and delight themselues either with cold or much heate.

In watrie places trees commonly growe great and beare much fruit and leaues : but they are nor of any commendable relish, colour or durablenes : yea they beare fruit commonly the yeere they are set, if they be accustomed to beare. Trees must be set the thicker in a fruitfull soile.

If you meane to plant trees in a cold place, and that yet the tree should not be hurt of the colde : you must plant them on the sunnie side of the banke; from the North, but towards the South.

The one and twentieth Chapter.

Of the place and time wherein euerie fruit tree delighteth to be sowen, planted, and grafted in particular: and first of the almond tree.

The almond tree.

THE almond tree delighteth in hot places, looking towardes the South or East, or where the aire at the least is moderate: as vpon the tops of hiles, or places neere vnto hiles, that are somewhat stonie and grauellie, stonie or marlie : in which places it doth not onelie flourish well being planted, and blossome abundantlie, but beareth therewithall great quantitie of drie almonds, as also hard and well relisht ones. But contrariwise if it be planted in a moist and watrie ground, and cold place, it neither groweth well, nor beareth fruit well, neither yet continueth long. The fit time for the setting of it is about the winter Solstice, which is the eleuenth day of December, euen vnto the end of the same moneth or somewhat after : for the plant of this tree being forward and earely in putting forth buds, if it were planted in the spring time, it might let slip and loosen the time of the yeere, which might be the fittest for the maintaining and comforting of his blossome. If you would haue it to grow of the stone vnbroken, and if I may so say, of his seede, you must let it be in Ianuarie and all Februarie, in such places as are temperate, or in October and all the moneth of Nouember in places that are hot. And thus to cause it to grow of his fruit, you must take new almonds, thicke ones, hauing white shels, very porous and spoongie, and lay them in steepe for the space of twelue howers in honied water, and after this dig them in the earth fower fingers deepe, the sharpe end downward, and after to water them three or fower times a moneth. It groweth also of shootes and sciences, but the science must be taken from the top of the tree, full of pith, sound of barke, and cut vnder the knot. And as concerning the grafting of it, you must take the time of autumne, for as hath been

said

ſaid this tree is a quickeſpur and forerider: but and if you ſtay till the ſpring time, you ſhall breake it off when the ſcience is fully put foorth. And for the chuſing of grafts, that will take well, you muſt take them vp on high and on the top of the tree, and not from the middeſt, much leſſe from below: and theſe graftes you may graft, either in the bud or in the cleft, and vpon a tree of his owne kinde, or vpon the peach or plum tree: indeede the almond tree that is grafted, is not of ſuch growth, or ſo fruitfull, as that which is planted.

The profitable almond tree.

The good Farmer muſt plant and grow great ſtore of almond trees, ſeeing they are not chargeable to maintaine, neither yet their fruit to keepe, but rather of great profit and leſſe loſſe then any other, ſeeing that euen vnder them corne will grow iolly and faire, the Almond tree hauing but a few leaues and thoſe little ones.

The barren almond tree.

The barren almond tree will become fruitfull and beare, if you lay open the rootes in winter, or elſe if you pearce ſome part of the ſtocke cloſe by the earth, and put through the hole a wedge of oake, watering it about with mans vrine.

Sweet almonds.

You ſhall make bitter almondes ſweete, if you lay round about the rootes of the almond tree ſwines dung, and vrine, caſting much earth vpon it afterward and this yeerely: or if you bore a hole in the ſtocke of the tree, and put therein a wedge dipt in honie: or if (as *Plinie* and *Theophraſtus* ſay) you bore the ſtocke through and through below and let the ſap run out. Of ſweete, you may make ſower ones, if you let the beaſts brouſe and crop off the firſt and tender branches.

Bitter almonds.

The almond tree will be free from all annoyance of fogs, if ſo be there be ſmall grauell laide vnto the rootes before it bloſſome, and when it ſhall begin to bloſſome then to take it away.

Almonds with-in printed letters.

You may haue written almonds if you breake the ſhell of an almond very finely without doing any harme to the kernell, wherevpon hauing written what you thinke good, wrap vp the ſhell and kernell in paper and ſo ſet it well couered with durt and ſwines dung.

The gathering of almonds.

Almonds are gathered when their huskes gape through the force of the Sunne: and hauing bet them downe if you ſhell them altogether, and waſh them in ſalt brine they will become white, and will keepe a long time, prouided that before you lay them vp to keepe, you drie them in the Sunne. Their huskes will be eaſily taken off from them, if you ſpread them vpon ſtraw.

The place to keepe them in.

The place to keepe them well muſt be dry, whether it be coffer, preſſes or garner: and if the number be great that you would keepe, you muſt ſee that the place haue good ſtore of aire and be lying open to the North wind.

Drunkennes.

The bitter almondes haue power to reſiſt drunkennes, as *Plutarke* witneſſeth, of a certaine Phyſition which did vſe to drinke out all commers and not be drunken himſelfe, and that by eating fiue or ſixe

bitter

bitter almonds before he did drinke: but they kill hens and chickens if they eate them. The bitter almond bruſed and rubd or laid to the browes and temples, doe appeaſe the head ach, and procure ſleepe, eſpecially if you put vnto it water of Veruaine.

Diſeaſed lungs. The vſe of ſweete almondes is good for them which are troubled with clammie fleame in their throate, or which haue weake lungs, are ſubiect to the grauell in the raines or difficultie of vrine, as alſo to reſtore natures force and to make men apt to venerie. The gum of the almond tree doth quickely ſtay the ſpitting of blood: yea the daiely vſe ſufficiently ſheweth how profitable this fruite is, for it ſerueth all the yeere long for the making of almond milke, potage, penners, marchpanes, and other ſuch daintie deuiſes.

The two and twentieth Chapter.

Of the peach tree, abricot tree, Spaniſh peach tree, peach-plum tree, baſtard peach tree, and the ſmall peach tree.

THe peach tree is planted of his ſtone, ſetting it two fingers within the ground, and the ſmall end thereof vpward: it delighteth in ſandie places, in drie places, and where the ſunne hath his full force: but in cold, moiſt, and windie places it dieth preſently if it be not defended from the ſaid inconueniences. You muſt ſet the ſtone with the ſharpe ende turned into the ground, and when it is in the earth, digge it, battle, and ſtirre vp the earth about it at the foote, at the leaſt thriſe a yeere: you muſt allow it dung, a fat ſoile, and a ſmall mould, and that a little before winter come, & eſpecially ſwines dung, which maketh it to grow more thicke then any other ſort of dung or batling; by this meanes you ſhall haue good peaches, thicke ones, and fleſhie: you muſt likewiſe weede them oft: after, when it is two yeeres old, you muſt remooue it, and lay it along in his pit, euen after the manner that they vſe vines, letting one onely bough ſtand out of the earth, which may growe to ſerue for the ſtocke and body, and thus it will continue long by reaſon of the great number of rootes which it will haue both to ſtay it as a foundation, and to feed it: but you muſt cut off the longeſt branch, and that which is the ſtraighteſt of all the other, which is the thing that would be diligently practiſed vpon all fruite trees, becauſe that it is the thing which keepeth them from bearing ſtore and aboundance of fruite. It is not to be grafted out of it ſelfe, if you will haue it excellent: howbeit to make it laſt the longer, (in aſmuch as it ſoone waxeth olde) it is good to graft it vpon a bitter almond tree, damaske prune tree, or quince tree, but not otherwiſe then ſcutchion or flute like.

It muſt be watered at euenings in hot weather, with coole water, and

and ſometimes with water mingled with the lees of wine, eſpecially when it withereth and beginneth to fal away: as alſo to remedy it when it is in danger of fainting and drying, you muſt lop it and cut away all the boughes, as is woont to be done with willowes when they are headed: for by that meanes they become luſtie and frolike, and to haue as many boughes as they had before: it muſt alſo be ſtaied vpon ſome pole or willow, becauſe his rootes be verie tender, ſmall, and not creeping farre into the earth: likewiſe we ſee that the peach tree doth grow old and fall away incontinently.

It beareth a diuers fruite, as well in colour and taſte, as in ſubſtance, and this diuerſity commeth for the moſt part of the ground: but principallie of the husbanding of them. And that it is thus, the peach trees that are planted or grafted vpon vines, bring foorth peaches of a better taſt and more ſolide ſubſtance. The peach tree grafted vpon a mulberie tree, bringeth forth peaches that haue red fleſh. The peach tree grafted vpon a nut tree doth beare peaches with huskes like nuts, whoſe tree is but ſmall, and hath leaues like vnto the almond tree, and a reddiſh flowre: it is true that ſuch a tree may become ſuch a one of it ſelfe, as we ſee infinitely in *France*. The peach tree grafted vpon an almond tree, beareth peaches which haue a kernel like vnto the almond, but the rinde and the fleſh like vnto the peach.

There may as much be ſaid of Abricots, called of the Latines *Præcocia*, or *Armeniaca*: of Spaniſh peaches, medlar tree, baſtard peach tree, and ſmall peaches, which are kindes of trees agreeing much with the peach: all which are verie tender in froſt, eſpecially the grafted abricot tree, and it continueth not paſt halfe the time of the peach tree: all of them are ſubiect to be ſpoiled of the cold, ſnows, froſts and fogs, which happen after that they are bloſſomed: but to keepe them from theſe dangers, it will be good to graft them vpon the quince tree or almond tree: all of them will beare great fruit, if when they bloſſome they be watered with goates milke. Concerning the particular vertues of the peach tree, ſee more aboue in the nineteenth Chapter of this booke. *The abricot tree.*

The flowres of the peach tree are excellent good againſt melancholie, and the wormes if you make ſyrups thereof of ſeuen or eight infuſions to be taken faſting. The gum of the peach tree is taken with good ſucceſſe in the ſpetting of bloud with the water of plantaine or purſlaine: for the cough and difficultie of breathing with hydromel, or the decoction of folefoote. For the grauell and ſtone with the iuice of radiſhes, citrons, or white wine, the weight of two drams. The leaues ſtamped and applied vnto the belly, doe kill wormes: the iuice thereof dropt into the eare doth the like: the kernels eaten, take away the wringings of the bellie: eaten to the number of ſixe or ſeuen, in the beginning of meate, they preuent drunkennes: ſtampt and boild *Melancholy. Wormes.*

in

in vineger to the forme of a broth, and after rubbed in place conuenient they hinder the falling of the haire: ſtamped and made in form of a milke with the water of veruaine, and rubd about the browes and temples, they ceaſe the headach: the oile made by expreſſion ceaſeth the paines of the eares, and in clyſters, the colicke and ſciatica.

He that hath regard of his health muſt not vſe theſe fruites, but as ſparingly as he can poſſiblie, and faſting rather than otherwiſe, becauſe they corrupt eaſilie in the ſtomacke: but aboue all things they maie not be eaten dipt or ſteept in wine, becauſe wine correcteth them not as ſome thinke, but rather cauſeth that their iuice pearceth the more ſodainly and eaſily into the veines. The peaches of *Corbeil* are counted for the beſt, hauing a drie and ſolide pulpe, and ſomewhat red, not ſticking or cleauing any thing vnto the kernell. The *Romaines* made great account of the peaches which they called *Perſica Duracina*, as do alſo the *Brittons*. The leaſt dangerous, leaſt ſubiect to be corrupted, and moſt pleaſant, are the abricots; which alſo ſome haue left out of the number of the kinds of peaches, and placed amongſt the plums, aſwell becauſe of their pleaſant ſmell, as for their harmleſnes, and that both within and without they doe rather reſemble the plum than the peach. The oile preſſed out of their kernell, is maruellous good againſt the hemorrhoides and ſwelling of vlcers, and againſt the impediments of the ſpeech, and paine of the eares.

Spaniſh peaches.

The three and twentieth Chapter.

Of the ſmall nut tree or haſell tree.

THe haſell-tree (which is called the ſmall nut-tree of the ſmall fruit which it beareth, or the filberd-tree, of the great fruit that it beareth) groweth in any aire or ground: but it beſt delighteth in a leane grounde, that is ſandie and moiſt neere vnto waters, or in places that men vſe to water, becauſe this helpeth them as well in the bringing foorth of their fruite in great ſtore, as for to make them indure long: adde heereto that they put foorth and ſpring in ſuch ſort at the roote, as that thereof one may ſet as many as he will in other places. When they are ſowne they muſt bee put two fingers vnder ground, but indeed they grow better of a plant that hath roote, or of a ſhoote cut biace, and hauing old and new woode as we haue already declared in the ſixth Chapter. They are planted in October and Nouember in a warme and temperate place: or in February and March: and it is better to leaue vpon them ſome boughes when they are ſet than to ſet them of one ſingle rod, for ſo they beare the more fruite. They muſt yeerely be digged anew at the ſpring, neere vnto the foote and round about, and their ſhootes all cut away, without leauing any ſtanding, ſaue three or fowre for to plant and make thicke buſhie ſhadow,

dow, and the ſame very neate and cleane for height, not leauing any branch or bough, after three or fower fadome from the top. Wherefore if they be oft lopped, picked, and pruned, they wil grow the more ſtraight, compact, and high, and will beare better and fairer fruit: but otherwiſe if a man neglect them, they run out all their nouriſhment into wood and leaues without fruite. Their fruite is called the ſmall nut or filberd. The filberd of hot countries, (where ſuch trees are called filberd trees) is more round and fleſhie then the French ſmall nut, and it is a fruite very eaſily dried and made yellow. But and if you woulde keepe it freſh and white almoſt all the yeere long, ſhut it vp cloſe in an earthen pot, and ſet them in the earth, and when it is thus kept it bringeth not ſo much annoiance with it as otherwiſe it would, for it naturally procureth drowſie headach and inflammation of the ſtomacke. I knowe not by what obſeruation of our anceſtors, this ſpeech hath growen common amongſt the people, that the yeere which yeeldeth plentie of nuts, doth alſo yeeld many mariages. Both the little nut tree, as alſo his fruite haue a cercaine contrarie vertue againſt venemous beaſts, for if you hang a cluſter of ſmall nuts in any part of the houſe, no ſcorpion or venemous beaſt will enter thereinto but flee away preſently: the countrie people haue likewiſe marked in all ages, that the ſerpent, lizard, or other venemous beaſt dieth preſently hauing beene ſtriken with a branch, ſtaffe or rod of the haſell tree. And it is no maruell, ſeeing nut kernels eaten with figs and Rue doe reſiſt venome, and the biting of venemous beaſtes. The beſt ſmall nuts and filberdes are thoſe which haue red ſhels, and which are hardly broken. The raw ſhell finely powdred, and drunke with water of *Cardnus benedictus*, doth heale the pleuriſie in the beginning thereof: being drunke to the quantitie of two drams with red wine, it ſtaieth the fluxe of the bellie and the whites: it is true that for the fluxe of the bellie and whites the red part of the kernell which ſticketh vnto the ſhell within is a great deale better and more forcible. The filberd nouriſheth a great deale better then the nut, as being a cloſer but not ſo fat a ſubſtance.

The foure and twentieth Chapter.

Of the cherrie tree, ſweete cherrie tree, bitter cherrie tree, and the hart cherrie tree.

COmmon cherrie trees, ſweete cherrie trees, bitter cherrie trees, and hart cherrie tree are ſortes of trees agreeing in many things: for they all delight to grow in a cold and moiſt ground, or elſe altogether indifferent betwixt hot and cold: for a hot aire they can hardly indure: and ſo likewiſe they refuſe to haue any dung, becauſe it ouerheateth them and is contrary to them. And for this cauſe they

they muſt neuer be planted in a manured ground. Notwithſtanding if you ſo temper the dung as that it may not be ouerhot for them, it cannot hurt them to be dunged, no more then (as we will ſhew by and by) to haue vnquencht lime laid to their feete to haſten their fruit: but this is true that if you dung them yeerely, that then you ſhall not haue them of any long continuance. They delight rather to haue their rootes compaſſed with ſmall branches, and the broken parts of their owne ſciences, or ſmall lumps and gobbets cut from their owne ſmall branches, for in theſe they greatly reioice and profit mightily, hauing them in ſteed of dung. You may either digge the kernell into the ground and burie it, or elſe plant of the ſciences neere the tops of hils and mountaines, whether it bee in a high or low place in October, Nouember, December and Ianuarie; you may graft them in Nouember, or (according to Palladius) from the twelfth day of December vnto the firſt of Februarie. The beſt is to graft them in Februarie and in March: albeit that it be the beſt cutting of all trees that yeeld gum, when the gum is not yet riſing, or after it is quite gone downe and returned from whence it riſe. Laſtly, cherrie-trees neuer thriue ſo well being nothing done vnto but planted, as when they are grafted: they delight to haue their dried branches often weeded out from themſelues and the ſciences growing at their foote: they delight alſo to be ſet in holes and pits that are digged and caſt, and to be often digged about: and if you would haſten and cauſe them to bring foorth their fruit ſooner, you muſt lay quicke lime to the foote of them, or elſe water their rootes often with warme water; but then ſuch fruite is much altered and made woorſe, retaining but little of his naturall goodnes: euen as we will prooue and finde by the haſtie cherries which the inhabitants of *Poictou* ſend vs vpon horſebacke.

They may be grafted vpon the plum tree and corneile tree: but beſt vpon one of their owne kinde: in ſuch ſort; as that ſweete cherrie trees being grafted vpon ſowre cherrie trees, doe beare a more ſoft cherrie, then thoſe are which grow vpon ſweet cherrie trees, grafted into ſweete cherrie trees. Cherries grow faireſt vpon ſmall cherrie trees, and more plentifully alſo then they do vpon high and tal ones. Wherefore who ſhall graft the ſmall cherrie tree vpon the great ſhall procure greater ſtore of fruit and more thicke ones, ſuch as are the wilde cherries, & alſo to haue more ſtore of great boughes, then thoſe trees haue which doe but as it were traile on the eatth: in like manner if when you graft them you ſet the bud and the eie of the graft below, the boughes that grow forth thereupon will fall out after the like manner.

The Cæurs and Agriots may be grafted vpon the common ſweet cherrie tree, but better vpon wilde ones then vpon garden ones. We muſt therefore acknowledge eight ſortes of cherries, growing vpon

cherrie

cherrie trees: that is to say, those which are properly cherries, hauing a very short stalke and round apple, being also red, fleshie, full of iuice, sharpe, and hauing a sweete kernell: wilde cherries, which haue but a little flesh on them, but are red also on that side toward the sunne, and white on the other side, the stone cleauing to the flesh: blacke cherries, whose iuice is so blacke as that it coloureth the hands and lips: bitter cherries which are somewhat of a bitter taste, whereof they haue their name: *Guyens* cherries, so called because their first originall was in *Guyenne*, they are long ones and many hanging together at one stalke, they are also very sweete: *Pingarres*, and these are grosse thicke ones, white, hauing a hard flesh, but sweet and cleauing to the kernell. Cœurs which are like vnto a mans hart, as well without as in their kernel, some do call these cherries *Heaumes*, & the cherrie tree *Heaumier*, especially in the countrie of *Anion*. Agriots which are ripe last of all are sharpe relished, and indure carriage far off, and they are also the same which are wont to be preserued.

Of the speciall properties and vertues of the cherrie and cherrie tree, see the nineteenth chapter of this booke, wherein is declared how the cherrie may be made to grow without any stone. If the cherrie tree be hurt of pismires, you must rub his stocke with the iuice of purslaine: if it be too full of sap, you must make a hole in the principall roote.

Cherries how faire soeuer they be, yet they are of small nourishment, beget euill humours in the stomacke, and wormes in the body, and such are those especially which are called Cœurs. The sharpe sweete cherries are verie delicate, fit to preserue with sugar as well for such as are sound as for them which are sicke. The bitter cherries are good raw, but better drie and in sauces, pastes, and tart stuffe. The sweete cherries are chiefly commended, in that they make the bodie soluble, as the sharpe or eager ones doe binde it, coole it, and temper the heate of choler. The gum of cherrie tree drunke with white wine, doth breake the stone as well of the reines as of the bladder. The water of cherries newly gathered being distilled with a gentle fire; taken at the mouth in the quantitie of halfe an ounce, doth put off the fit of the falling sicknes, a thing very happily and with good successe tried in many, as *Manardus* allureth vs.

The fiue and twentieth Chapter.

Of the quince tree.

THE quince tree as well that of the garden as the wilde one: and of the garden ones, as well the male as the female desireth a cold ground, and especially that is moist withall; notwithstanding that we haue seene it as well to grow in places lying open to the

the ſunne, as at *Conflans* a place belonging to *Monſieur de Ville-roy* neere vnto *Paris*, but yet indeed not farre off from a riuer: and this kinde of tree doth ſo much craue to haue the companie of moiſture, as that if the time fall out drie, the neceſſitie muſt be ſupplied by watering of it, and if for want of moiſt and wateriſh ground, it be ſet in a drie ground, or in a ſtonie or clayie ground, it muſt then alſo be often refreſhed with water, it muſt alſo be vnderdigd and laboured about the foote, that ſo the wet of the night may pearſe and ſinke downe vnto the rootes, that ſo it may bring foorth good fruit and good ſtore thereof. When it is planted of rootes it groweth ſo well, as that the ſecond yeere it beareth fruite, but it beareth not ſo ſoone when it is planted of branches. It would be planted during the increaſe of the moone in the moneth of Februarie or Nouember. This tree is verie commonly vſed to graft other trees vpon, becauſe they being grafted thereon doe continue and endure longer, and beare a more delicate fruit, then if they were grafted vpon trees of their owne kinde. His fruit muſt be gathered in the moneth of October when that blaſting comes, and the fruit groweth to be of a golden colour: for this is a ſigne that it is ripe, and this muſt be in cleere and faire weather, and in the decreaſe of the moone, then you muſt cleanſe it from the moſſie hoarineſſe that is vpon it, and lay them out orderly in the ſunne vpon hurdles.

Quinces of diuers colours.

If the quince tree make any ſhew of being ſicke, you muſt water it with the ſetlings of oile mingled with equall quantity of water: or elſe with quicke lime and fullers clay tempered togither with water. You may make quinces of what faſhion you will if you teach them to grow in mouldes of wood or baked earth. As concerning the meanes to keepe them we ſhall ſpeake of that hereafter.

The garden and reclaimed quince tree beareth two ſortes of fruites, the one the male, which is called the quince apple, the other the female which is called the quinceſſe, thus differing, the male is leſſe, more writhled and wrinkled, drier, of a ſweeter ſmell and of a more golden colour then the quinceſſe: the wilde quince is verie odoriferous, but of a very hard fleſh. If you graft a male quince tree vpon a female, or the female vpon the male, you ſhall haue tender quinces, and ſuch as may be eaten raw, where as the other are not fit to be eaten before they be prepared.

Venome.

The ſmell of quinces is contrarie vnto venome and poiſon, alſo the quince it ſelfe doth comfort the ſtomacke, ſtay the flux of the belly, and make men to haue a ſweete breath. For which reaſon wiſe *Solon* (as ſaith *Plutarch*) did command not onely the betrothed, but alſo the married women that they ſhould neuer lie with their husbandes but that they ſhould firſt eate of the fleſh of a quince. And yet notwithſtanding the woman with child when ſhe draweth neere the time

of

of hir deliuerance may not vſe quinces, although that in vſing of them in the time of her being with childe, they will be ſome meanes of her bringing foorth of a faire babe. Some make a confection of quinces called marmalade which is very ſoueraigne againſt the flux of the bellie, which is prepared and made in manner as we will ſhew in the fiue and fortieth Chapter, according to which patterne wee may make a laxatiue marmalade after this ſort. Take of quinces clenſed from their pippens, cut them in quarters, but pare them not: boile them throughly in water, then ſtraine them through a cleane linnen cloth and wring them out diligently, then boile them againe with ſugar putting thereto a ſufficient quantity of Rubarbe in powder. This marmalade purgeth very ſpeedilie, and withall comforteth the ſtomacke and the liuer. In ſteede of Rubarbe you may put ſome other laxatiue, as Sene, Agaricke or ſuch like. The Cydoniatum or Marmalade of Lyons is made with ſcammonie.

The flixe of the bellie.

A laxatiue marmalade.

The ſixe and twentieth Chapter.

Of Oranges, Aſſyrian citrons, common Citrons, Limons, and Pomeadams.

THe Orenge, Aſſyrian citron and limon deſire to be ſet vpon the South or South-weſt winde, for being touched with ſuch winds as are warme and moiſt they become more abundant in iuice, better coloured and thicker, which is the cauſe that the ſea coaſtes being haunted with the ſaid windes doe abounde with durable plants and ſuch trees bringing foorth very fruitfully: for others ſet vpon the North and North-eaſt are not thereby ſo well fitted. Some make nurſeries of theſe kinde of trees, ſowing their ſeedes in March: They will affirme and giue it out likewiſe that they grow of ſciences ſet and pitched downe in ſmall furrowes or ſtucke downe in baskets: and ſome doe graft them vpon the ſtocke neere enough vnto the roote, and that in Aprill and in May: and ſome ſay, that they may be grafted after the manner of the Scutcheon-like graft, in the moneth of ſommer: putting their pippens in a pot or basket neere vnto the tree where you would they ſhould be grafted or halfe ſwallowed: but the moſt certaine direction and inſtruction about theſe trees, is that which is ſet downe in the ſecond booke, and whereunto we refer you for the ſame purpoſe. The pomeadam tree is much to be eſteemed, euen of the beſt gardiners, not in reſpect of his fruite (which indeede is more beautifull than profitable, in as much as it is neither good to eat rawe nor yet to preſerue, but onelie fit to waſh the handes, or elſe to carry in the hand:) but to graft citron trees, orange trees, limon trees and Aſſyrian citron trees vpon as we haue ſaid in the ſecond book, becauſe they proſper maruellouſlie vpon this tree, and bring foorth verie

quickly faire and great fruite, especially the orange tree: we haue intreated in the second booke, of the differences of Oranges, Citrons, Melons and Assyrian citrons, whereunto we will further adde that the citron of Assyria is of a verie good smell, but of little sweetnesse or any other taste. And therefore it is vsuall to eate his flesh with salt or sugar, or with salt and vineger: the limon differeth from this kinde of citron, because the limon is lesse, in colour drawing toward a green, bunching out both aboue and below, after the manner of womans nipples.

Pomeadams. As for pomeadams they are round, twise or thrise as great as oranges, not hauing a very thicke rinde, rugged, vneuen, and hauing many clefts or chaps very manifestly appearing like to the printes of teeth: some thinke they had this name giuen of being the apple which *Adam* did bite vpon in this earthly Paradise: they are relished almost like limons, but not altogether so pleasant. If you cut it in the halfe and season it with the fine powder of brimstone, and after rost it vnder the ashes, and rub therewith the itching body, or any part of it, it wil heale the same.

The seuen and twentieth Chapter.

Of the Fig tree.

FIg trees are either white, carnation, red, pale, or greene: and some also be blacke: there are some that beare before the colde come, others are more late in their fruit: and againe of all these some beare a small fruit, as namely the white ones: and othersome a great and grosse fruite, standing out with great bellies, as by name the blacke ones, of which yet further there is one kinde that beareth long figs, hauing almost no bellies, and these draw nothing neere in goodnes vnto the great bellied ones & those which are more short. All sorts of fig trees loue a hot aire and country, a drie and stony ground, insomuch as that it ceaseth not bearing of excellent fruite amongst the heapes of small stones, prouided that there be good store of depth of earth to spread and sinke downe his rootes into at ease. Such a tree as many others is apt for hot countries, but he that would haue of them to grow in colde countries, must make choise of those which bring foorth their fruite before the cold time of the yeere: and must couer it with some shield in winter, and compasse it about the foote with fat ground, or dung of Oxen, or Asses very well rotted, for otherwise it will yeeld him no pleasure. This tree is so full of pith and his fruite so moist, as that if you water it the fruite will not keepe, but yet you may vnder-dig and dig it, to the end that the nights wet may enter into it: you must take from it all dead and rotten wood not suffering by it the water to find any standing vpon the tree, for otherwise the

fruit

fruit would not haue any taſt or ſauour.

The plant of the fig tree which is of a branch or of ſhootes newly put foorth, is planted in October and Nouember in a warme and temperate aire: but in Februarie, March or Aprill, where it is a cold aire: and yet the Genowaes doe plant braunches all the moneth of Auguſt, as they are laden with leaues and fruit. As for the grafting of it, that may be done in Aprill as well in the bodie, or ſtocke, as in the barke or rinde. Some ſay that the fig tree planted amongſt vines, doth it no annoyance, which is in ſome part true, becauſe there as ſome conſent and agreement betwixt the fig and the grape, and both their woods are full of thicke pith; and raiſins or dryed grapes being wrapt in fig leaues, doe not onely keepe well and ſound according to their nature, but amend and become better both in taſt and ſmell; and in part falſe, becauſe the fig tree caſteth out ſuch large branches and broad leaues, as that the ſhadow thereof doth hurt the vine: there are ſome low dwarfiſh figtrees, like vnto the peach tree; the fruit of which peach trees, is ſomewhat agreeing with the grape, ſo as that the peach being ſliced into red wine, doth moſt highly content and pleaſe the taſt; and theſe indeede can doe ſmall harme vnto vines ſtanding amongſt them: but he that troubleth not the vine ſtockes with any kinde of tree at all, ſhall doe better then he which doth otherwiſe. *To graft the figtree.*

If you deſire to haue low fig trees, and ſuch as may be kept in earthen pots, vnder your windowes, to ſatisfie your deſire with their pleaſant ſight: cut in the ſpring time a ſhoote of the fig tree before it bud, writhe his top with your hand, ſet it, the writhen top downe in the earth and the end where it was cut vpward and out of the earth, it will put foorth manie ſmall boughes all abont the pot which will beare pleaſant fruites, the tree continuing to remaine alwaies low: you ſhall haue earely figs, if you water the fig tree with oile, and Pigeons dung; and on the contrarie late ones, if you take away the firſt buds, when they are growne to be as big as beanes.

The fig tree the elder it is, the more fruitfull it falleth out to be: it is very ſubiect to be eaten of vermine, and the meanes to free it from this miſchiefe, is to ſet by it ſome onions: or elſe for to kill the vermine you muſt ſcatter quickelime, or caſt old vrine, or the lees of oile there about the place. It will not be loſt coſt to annoint the ſtocke with the iuyce of mulberies, or if you ſpread and lome it ouer with red fullers earth, when it is a full moone, or if you hang at the braneches of it yoong figs newly put foorth. Furthermore, figs wil grow with letters vpon them, and garniſhed with what ſhape you deſire, if when you graft the fig-tree, you write in the eie of the fig-tree ſuch proportion, as you would haue that the figges ſhould beare: and beſides without vſing any ſuch curious courſe nature delighteth to

ſport her ſelfe with this fruit, in ſuch manner as that ſhee caruеth out an infinite number of figures and indented notches full of pleaſantnes to behold, and theſe are tokens of the goodnes of the figge: for as it is verie fat the iuice doth conſtraine the skin to fall into wreathes and to quarter out a thouſand ſhapes. This is a maruellous thing, that although the fruite of the fig-tree be verie ſweete, yet the leaues thereof are of a ſharpe and bitter taſte: likewiſe the wood being burned doth yeelde a ſharpe ſmoke, and the aſhes a verie ſcouring lee, and maruellous ſtrong, becauſe of his ſharpnes: as if the fig-tree had beſtowed and bequeathed all the whole ſubſtance of his ſweetnes vpon the fig, and had left neuer a whit for it ſelfe. This is alſo a maruellous thing, that the fig-tree is not ſubiect vnto the thunder claps.

We haue oftentimes tried that if you ſteepe two or three figs in aqua vitæ all night, that ſuch figs eaten in the morning doe cure the ſhortnes of breath: the milke of the fig-tree dropt into the eare, killeth the wormes therein: the leaues of the fig-tree rubd, doe prouoke the hemorrhoides. Looke for a more ample diſcourſe of figs and the fig-tree in the ſecond Booke.

The eight and twentieth Chapter.

Of the apple-tree.

The apple tree. THE apple-tree, which is a tree moſt in requeſt and the moſt precious of all others, and therefore called of *Homer* the tree with the goodly fruit, groweth any where, and in as much as it loueth to haue the inward part of his wood moiſt and ſweatie, you muſt giue him his lodging in a fat, blacke and moiſt ground; and therefore if it be planted in a grauelly and ſandie ground, it muſt be helped with watering, and batling with dung and ſmall mould in the time of autumne. It liueth & continueth in al deſireable good eſtate in the hils and mountaines where it may haue freſh moiſture, being the thing it ſearcheth after, but euen there it muſt ſtand in the open face of the South. Some make nurceries of the pippins ſowen, but and if they be not afterward remooued and grafted they hold not their former excellencie: it thriueth ſomewhat more when it is ſet of branches or ſhootes: but then alſo the fruit prooueth late and of ſmall value: the beſt is to graft them vpon wilde apple-trees, plum-trees, peach-trees, peare-trees, peare-plum-trees, quince-trees, and eſpecially vpon peare-trees, whereupon grow the apples, called peare-maines, which is a mixture of two ſorts of fruits: as alſo when it is grafted vpon quince-trees it bringeth foorth the apples, called apples of Paradiſe, as it were ſent from heauen in reſpect of the delicatenes of their cote and great ſweetnes, and they are a kinde of dwarfe apples, becauſe of their ſtocke the quince-tree, which is but of a ſmall ſtature.

The

The apple loueth to be digged twiſe, eſpecially the firſt yeere, but it needeth no dung, and yet notwithſtanding dung and aſhes cauſe it proſper better, eſpeciallie the dunge of ſheepe, or for leſſe charges ſake, the duſt which in ſommer is gathered vp in the high waies. You muſt many times ſet at liberty the boughes which intangle themſelues one within another; for it is nothing elſe but abundance of woode, wherewith it being ſo repleniſhed and bepeſtred, it becommeth moſſie and bearing leſſe fruite. It is very ſubiect to be eaten and ſpoiled of piſmires and little wormes, but the remedy is to ſet neere vnto it the ſea onion: or elſe if you laie ſwines dung at the rootes, mingled with mans vrine, in aſmuch as the apple-tree doth reioice much to be watered with vrine. And to the end it may beare fruit abundantly, before it begin to bloſſome, compaſſe his ſtocke about and tie vnto it ſome peece of lead taken from ſome ſpout, but when it beginneth to bloſſome take it away. If it ſeeme to be ſicke, water it diligentlie with vrine, and to put to his roote aſſes dung tempered with water. Likewiſe, if you wil haue ſweet apples, lay to the roots goats dung mingled with mans water. If you deſire to haue red apples, graft an apple tree vpon a blacke mulberrie tree. If the apple tree will not hold and beare his fruite till it be ripe, compaſſe the ſtocke of the apple tree a good foote from the roots vpward, about with a ring of a lead, before it begin to bloſſome, and when the apples ſhall begin to grow great, then take it away.

Gathering of apples.

Apples muſt be gathered when the moone is at the full, in faire weather, and about the fifteenth of September, and that by hand without any pole or pealing downe: becauſe otherwiſe the fruite woulde be much martred and the yong ſciences broken or bruiſed, and ſo the apple tree by that meanes ſhould be ſpoiled of his yoong wood which would cauſe the loſſe of the tree. See more of the manner of gathering of them in the Chapter next following of the peare tree: and as for the manner of keeping of them it muſt be in ſuch ſort as is deliuered heereafter.

You ſhall thaw frozen apples if you dip them in cold water, and ſo reſtore them to their naturall goodneſſe. There is a kind of wild apple, called a choake apple, becauſe they are very harſh in eating, and theſe will ſerue well for hogs to eat. Of theſe apples likewiſe you may make veriuice if you preſſe them in a Cider preſſe, or if you ſqueeſe them vnder a veriuice milſtone.

Vineger.

Vineger is alſo made after this manner: you muſt cut theſe apples into gobbets, and leaue them in their peeces for the ſpace of three daies, then afterward caſt them into a barrell with ſufficient quantity of raine water or fountaine water, and after that ſtoppe the veſſell, and ſo let it ſtand thirtie daies without touching of it. And then at the terme of thoſe daies you ſhall draw out vineger, and put

into them again as much water as you haue drawne out vineger. There is likewiſe made with this ſort of apples a kind of drinke, called of the *Picardines*, Piquette, and this they vſe in ſteed of wine. Of other ſorts of apples, there is likewiſe drinke made, which is called Cider, as wee ſhall declare heereafter.

Neate wine. *Mingled wine.* An apple caſt into a hogshead full of wine, if it ſwim, it ſheweth that the wine is neat: but and if it ſinke to the bottome, it ſhewes that there is water mixt with the wine.

Infinite are the ſorts and ſo the names of apples comming aſwell of natures owne accord without the helpe of man, as of the skill of man, not being of the race of the former : in euerie one of which there is found ſom ſpecial quality, which others haue not: but the beſt of al the reſt, is the ſhort ſhanked apple, which is marked with ſpottings, as taſting and ſmelling more excellently than any of al the other ſorts. And the ſmell of it is ſo excellent, as that in the time of the plague there is nothing better to caſt vpon the coales and to make ſweet perfumes of than the rinde thereof. The ſhort ſtalked apple hath yet furthermore one notable quality : for the kernels being taken out of it, and the place filled vp with frankincenſe, and the hole ioined and faſt cloſed together, and ſo roſted vnder hot embers as that it burne not, bringeth an after medicine or remedy to ſerue when all other faile, to ſuch as are ſicke of a pleuriſie, they hauing it giuen to eat : ſweet apples do much good againſt melancholicke affects and diſeaſes, but eſpecially againſt the pleuriſie : for if you roaſt a ſweete apple vnder the aſhes, and ſeaſon it with the iuice of licorice, ſtarch and ſugar, and after giue it to eat euening and morning two howres before meat vnto one ſicke of the pleuriſie, you ſhall helpe him exceedingly.

The nine and twentieth Chapter.

Of the Peare tree.

The peare-tree. THE peare-tree (being the moſt in requeſt and pretious (next vnto the apple tree) amongſt all the fruit trees that are) is ordered for the moſt part after the manner of the apple tree, although the woode and fruite of the one be more firme than that of the other, and that the peare-tree bring foorth his fruit late, as not before the ende of Autumne, when as all the great heate is already paſt : notwithſtanding you ſhall ſet it in the ſame ground with the apple tree : and in the firſt fowre or fiue yeere of his growth you ſhall lay it open at the foote, a little before the ende of December vncouering it euen vnto the roores, which you ſhall ſhaue and trimme with a knife bowed againe: and in the end of Ianuary you ſhall couer it againe with his own earth mingled with good made mould, keeping from thence forward his place well weeded, the foote verie neate and cleane, and the ſtocke verie well freed from intanglements of boughes ſo farre as

the

the hand can doe it, and throughout very carefully cleansed from mosse, snailes, and caterpillers, husbanding and ordering the earth at the foote of it euerie two yeeres at the beginning of winter: for the fruit which the pare tree thus husbanded shall beare, will be both more faire and better relished, and keepe longer. The peare-tree that is planted in a leane, drie, chalkie or gravelly ground is but of a starued growth, bearing a sharpe, small, and ordinarilie a stonie fruit. The kernels are sowen in the nurcerie as those of the apple tree, but the hoped fruit is long in comming and scarce attained throughout the whole life of a man, for it is farre longer time in comming to perfection, then the apple tree. It groweth also of a branch well chosen, and he that will so grow it, must plant it in September and October in hot countries: but in cold countries in Februarie and March: and in temperate countries it may bee done in either of the two times, as it shall best please him: but the peare-tree that is most sure and likeliest to bring contentment of it selfe, is that which is grafted vpon the yoong plant in the nurcerie, and in such curious sort maintained and ordered, as hath beene saide, as also if it be remoued some three yeeres after, affording it a large and deepe roome in a good mouldring earth. It may also be grafted in a peach tree, quince tree, and almond tree, but yet better vpon it selfe, then vpon any of these, for so it becommeth of a better nature. It is known by proofe, that the peare tree grafted vpon a mulberie tree bringeth foorth red peares: and if it happen that your peare tree bring foorth a stonie peare, you must remooue the earth from the foote and powre in vpon the rootes euerie daie for the space of fifteene daies the lees of good old wine.

To gather peares.

Peares must not be gathered before the latter end of autumne, when the great heate of the yeere is past, because their moisture being weake and in small quantitie, the sun suffereth not that it should come vnto any good consistence, before such time as the aire begin to turne and change into coldnes. And therefore saith *Theophrastus*, this is the onely fruit tree that ripneth his fruit best and soonest in the shadow: such gathering of peares also must not be taken in hand but after that the autumnall blasting and deaw be fallen at the least three or fower times vpon them, because it strengtheneth them greatly to their better enduring and lasting, and increaseth their goodnes. But in any case they may not be gathered in raine, but rather in drie weather, being themselues well dried by the sunne, and that in gathering, they be not hurt by any manner of meanes whatsoeuer: but to choose them one after another, by cutting them downe with a good knife made fast to the end of a pole: or else to make them fall into a cloth spread vnderneath for the receiuing of them, and in it separating the rotten, spoiled or hurt from amongst the faire, sound, whole and vnhurt ones,

that ſo they may be laid vp to keepe in ſuch ſort as we wil declare hereafter in his place.

Although generally and without ſaying any thing of any particular by way of compariſon, the apple be far fuller of iuice, and for the moſt part more ſound then the peare, notwithſtanding if one ſhould ſtand vpon the taſte, the peare is commonly more pleaſant and better reliſhed, and more contenting and a greeing with ones taſte, eaten in his ſeaſon, raw, roſted, or preſerued, then the apple: wherefore I am aſhamed that men giue not themſelues to plant moe peare trees then apple trees, ſeeing that beſides the reaſons alledged, that the peare tree of all other fruit trees, is the faireſt, ſtraighteſt, and couering no whit ſo much ground with his ſhadow, as the apple tree doth, bearing alſo his fruit almoſt euery yeere, where the apple tree is but a iourney man bearing one yeere and not another.

Looke in the treatiſe of perrie,

There is a drinke made of the peares, called perrie, whereof we will ſpeake, as alſo vineger of wilde peares, as hath alreadie beene ſaid of apples.

The peare hath this ſpeciall vertue aboue the reſt, that the often vſe of the kernels ſhould be maruellous profitable vnto ſuch as are troubled with the inflammation of the lungs; as alſo for them that haue eaten many muſhroms, that they may rid their ſtomacke of ſo great a loade, there is nothing better then to eate peares: for the peare by his waightines and aſtringent iuice, maketh the muſhroms eaten and lying in the bottome of his ſtomacke, to deſcend and fall downe from thence.

The thirtieth Chapter.

Of the medlar tree.

The medlar tree.

THE medlar tree groweth into a thicke ſtocke: it endureth the cold aire eaſily, and yet delighteth beſt in a hot or temperate aire, and in a ſaudie and fat ground. It is planted either of rootes or of branches and that in Nouember: and ſome ſow it of ſtones in a ground mixt with dung: it will beare fruit in great quantitie, if there be laide to the foote of it earth mixt with aſhes. It may bee grafted vpon it ſelfe, or vpon the peare tree, apple tree, or quince tree: and that it may be well grafted and with good grafts, you muſt prouide your ſelfe of thoſe, which grow out of the midſt of the medlar tree, and not of the top: and it muſt be grafted in the cleft or higheſt part of the ſtocke, not in the barke, becauſe the leanneſſe of the barke would not be able ſufficiently to nouriſh it.

If you graft it vpon a quince tree, the fruit will be very faire, and the reaſon is verie manifeſt, becauſe the ſtocke which receiueth the graft and nouriſheth it, is giuen naturally to bring forth a thicke groſſe fruit:

fruit : and yet it will yeeld a fairer without all compariſon, if you graft it vpon the hawthorne, with which it is ioyned in exceeding familiar and friendlie league, alſo the fruite that commeth thereof is more beautifull and plentifull : it may alſo be verie fitly grafted vpon any other thorne it ſelfe being pricklie : if you graft the medlar tree vpon any other tree that is not of his owne kind, the medlar will haue either no ſtones or verie few, or elſe very little ones. If the wormes aſſaile the medlar tree, you muſt water the ſtocke with vineger, or throw aſhes vpon it.

Some hold it for certaine that the fleſh and eſpecially the ſmall ſtones of the medlar dried either ſeuerally and alone, or elſe together, made into powder and drunke with white wine, wherein hath beene boiled the rootes of parſlie, doe breake and conſume the ſtone as well of the reines as of the bladder. Looke into the ſeconde booke in the chapter of turneps, as concerning this remedie. You may make a cataplaſme of drie medlars, cloues, white and red corall, and nutmeg, all incorporated with the iuice of roſes, to lay vpon the bellie in the great fluxes of the ſame, and vpon the breaſt for the ſpetting of blood.

The one and thirtieth Chapter.

Of the mulberie tree.

THE mulberie groweth vpon a certaine kinde of tree which hath a firme wood, but a brittle fruit and leaues, it buddeth the laſt of all other trees, after that the cold is ouer paſſed, whereupon it is called by the name of ſage or wiſe, witty, and prouident; it putteth not foorth his leaues, till all other trees be laden with leaues, if at the leaſt you haſten not forward his budding, by giuing vnto it freſh and new dung in the new of the moone of Februarie. This tree is of two ſortes, the one white, becauſe of the white mulberies; the other blacke, becauſe of the blacke or red mulberies which it beareth and bringeth forth: which though they reſemble one another in this, that both of them doe put forth their leaues later then any other tree, yet notwithſtanding they are vnlike in flowers, leaues, and other conſiderations. For the blacke doth not onely bring forth a far fairer and better reliſhed fruit, and that of greater abundance of liquor then the white : but it hath beſides a thicker ſtocke, and a greater and harder leafe, it groweth verie hardlie and with much adoe being planted, and is a great while in growing before it become great, and therefore is no ſhame that there are ſo few, it being ſo vnapt of it ſelfe to grow being planted of plants and ſciences, as alſo propagated and multiplied vnder the earth, with the ſtocke that bare it, euen as is vſed to be done with the white ones, which yet doe grow infinitely euery where, as well planted of ſhootes and propagated, as ſowen : both the one and the other

doe

doe loue a hot aire, or at the leaſt a temperate, a ground that is fat, and well battled with dung, and labour at the foote, and to be kept cleane from moſſe and caterpillers, and without any dead wood. They are planted, eſpecially the white, either of ſhootes or of roots, or buds, and that in October and November, euen in like manner as the fig-tree. In planting of them you muſt make them deepe and large pits, and couer them with earth mixt with aſhes: they may be grafted vpon the cheſnut tree, apple tree, wilde peare tree, cornaile tree, elme or white popler (and then they will beare white mulberies) and this muſt be in the cleft; and vpon the fig tree in the ſcutcheon-like graft: they may alſo bee grafted vpon themſelues, and the one vpon the other, as the white mulberie tree vpon the white, and the blacke vpon the blacke, and that chiefly and principally after the pipe or flute-like faſhion: in what manner ſoeuer you graft them, the grafts muſt be choſen of a good thicknes, and from ſuch mulberie trees as beare fruits full of good ſeede and kernels. It would be but labour loſt to ſowe them vpon kernels in the nurcerie in this cold countrie, for beſides that but a few mulberies haue ſeede, yet thoſe which haue doe bring forth, neither tree nor fruit almoſt that is any thing worth. But whatſoeuer it is, or in what place ſoeuer you plant, graft or ſow them, let it be far from houſes, to the end that the infinite number of flies which flocke thither when the fruit is ripe, may not become tedious to the inhabitants, but yet let it be in ſuch a place as that the hens may eate them when they fall downe, becauſe this vittaile doth fat and feede them very mightily. It buddeth the laſt of all trees, as we haue ſaid, but for a recompence it becommeth ripe by and by.

The mulberrie tree hath alwaies beene of great requeſt and great profit in countries where cloth of ſilke is made, as at *Lucket*, *Geynes*, *Almerie*, *Granado*, *Auignion*, and afterward at *Tours* and other places, becauſe the ſmall wormes making ſilke, are brought vp and nouriſhed of the leaues of this tree: which for the ſame purpoſe are carefully ſought of them which doe make account to draw ſilke into a fleece: wherupon it is come to paſſe, that there are to be ſeene in many places about the ſaide townes of great mulberie trees, as it were little winges of foreſts, the ſaid mulberrie trees being planted after a iuſt and due proportion and leuell of line, and moſt exquiſitely maintained and looked vnto by them which owe them: for from hence they reape large ſummes of money, ſelling the leaues yeerely for the purpoſe before ſpoken of; for as for the fruite, they make no great purchaſe of it, becauſe the mulberrie tree will not be robbed of his leaues, for ſo it would come to paſſe that it ſhould not bring foorth fruit, of the valew of three halfe pence.

The wood of the mulberrie tree is good to make cheſtes, forkes, and compaſſes of; and ſuch other workes as muſt yeeld and be pli-

ant:

ant: it is also good about shippes and boates.

Mulberries must be eaten before all other meats, and that without bread, or else but with a very little, because if they be mixt with other vittailes they do but cause them to corrupt: it is true that they coole and moisten verie much, and do also loosen the bellie.

Mulberries put into a glasse vessell wel stopt and couered with their iuice may be kept a long time.

The iuice of mulberries halfe ripe mingled with hony of roses, is a singular remedy for the inflammations of the mouth and throat, as also for the putrified teeth and exulcerated gums.

The two and thirtieth Chapter.

Of the timely Peach tree.

THe timely peach tree, is a peach tree bearing a very small fruit, but earlier than other peach trees doe, and hauing his name thereupon: it is of a verie good relish and no way harmefull, in euerie thing else it is like vnto the other peach tree both the one and the other delighting in cold grounds and open vpon the winde: they likewise craue no other manuring than that of their owne leaues, and content themselues to be planted three or fowre fingers deepe in the ground: but and if they lie very much open to the force of the wind, they require either to haue some wall, or else some other trees to stand in the forefront betwixt them and the winde to breake it off. The timely peach craueth such a ground as the plum tree, and groweth either of the stone or of a plant. It is to be planted in October or Nouember or else in Ianuary or in February. It may be grafted very well vpon it selfe or vpon the plum tree, peach plum tree and almond tree, and in drie times it must be oftentimes watered and digged: it craueth the like husbanding and ordering that the other peach tree doth: See more aboue in the Chapter of the peach tree. *The timely peach tree.*

If you fill vp a great company of the new leaues of the timely peach tree, or common peach tree into a glasse viole or earthen pot, and after stop it and lute it well, so as that no moisture can get into it, and so set it a foote or two within the ground neere vnto some brooke, or else in a heape of horse dung for the space of a moneth, and after straine out the said leaues with a presse, you shall draw a singular oile to temper the rage of agues, annointing the wrest of either arme, the temples, and backe bone of him that hath the ague therewith, before the fit take him. *Oile of the flowers of the timely peach.*

The

The three and thirtieth Chapter.

Of the walnut tree.

The walnut tree.

THe walnut tree is a tree very common and ſufficiently knowne in all partes, ſo called by reaſon of the annoiance that it worketh others which are neere vnto it, as alſo the places where it is planted, men, yea and the very beaſtes: in ſo much as that it is proued by experience, that if a man doe ſleepe vnder it, at his awaking he ſhall finde a great heauines in his head, and withall become ſo light and giddie, as that he will not be able to ſtirre: yea the ſhadow thereof is ſo malignant, as that no good thing can grow vnder it, and the rootes (as well as the ſhadow) ſtretching and ſpreading themſelues far, doe hinder and trouble all the ground where the ſame tree is ſeated and planted: ſo that it muſt not be planted in arable ground, but eſpeciallie not in fat and fertile ground, but rather vpon the North quarter by the high way ſides or elſewhere, ſo that there be no other fruit trees by to take harme by it. This tree is for many cauſes to bee gotten of the husbandman: in aſmuch as it needeth no great dreſſing or prouiſion for the maintenance of it, it ſuffereth and beareth iniuries of thoſe which oppreſſe it, and yet neuertheles extendeth and yeeldeth his fruite in liberall ſort euen with it owne loſſe, it proſpereth both aboue and vnder the earth, and there is neither leafe, fruit, ſhell, or griſtle betwixt the kernell, but there may profit and commoditie be raiſed of it, both night and daie, as ſhall be declared in euery of his particular properties. It eſpecially delighteth in a fat, mouldry, light, and (in a word) in a good corn ground, the husbandman likewiſe delighteth in ſuch a ground: but the walnut tree refuſeth no kinde of aire or ground, for it can very well endure to beare and ſuffer much. For the planting of it, you muſt make choiſe of ſuch walnuts and trees as beare abundance of fruit, hauing thinne ſhels, and a white: full, and thicke kernell. And to make it growe, you may dig the nut into the earth, the pointed end downward, or elſe plant it of ſhootes that are faire growne, and that in Nouember and throughout all December in hot countries; but in February and March in cold countries; and in temperate countries, in which of the two ſeaſons you will. But ſuch as would haue it to grow of the nut in Nouember & all December, muſt obſerue and ſee that the nut which they would burie in the earth for this purpoſe, be but a yeere old, of a faire ſhell, ſound and drie: and, if it be in the moneth of Februarie, or any part of March, the nut muſt be ſteeped, as ſome are of opinion, for fowre or fiue daies aforehand, in ſome childes vrine, or elſe as I geſſe, in cowes milke: for the tree that ſhall grow thereof, will beare his nuts as little diſpleaſing either in

To plant the walnut tree.

eating

eating or in the oile thereof, as if it were the fruit or oile of sweete almonds.

If you would haue this tree to grow faire and full of nuts of a good taſt, you muſt remooue it, but let it be poſſeſſed of the earth where it grew either of a graft or otherwiſe: and in remoouing of it, ſome finde it not good that the ſmall rootes ſhould be cut away as it is vſed in other trees: both becauſe the maſter rootes doe gather footing and ſtrength thereby, as alſo for that they being releeued by ſuch ſhootes, would become more ſtrong and more able to pearce the earth, and to ſucke and ſup vp greater quantitie of the moiſture of the ſame: I could be of minde, that when it is remooued (which muſt not be but when it is two or three yeere olde) there ſhould be taken from it at that time, whatſoeuer ſurpluſſage and ſurcharge of rootes, euen ſo many as may be tearmed baſtard or by-rootes and not of the maſter or maine ones. For as for the cutting off of the endes of the great rootes, that is done but for the opening of their mouth, that ſo they may the better ſucke in the moiſture and iuyce of the earth, (if one may ſo ſpeake of the new nurſe which you haue appointed and aſſigned it.) In reſpect of his pits and holes whereinto you remooue it: they muſt be digged of a great depth and widenes, and be well ſtirred round about, and ſet diſtant thirtie or fortie foot one from an other, that ſo it may the better ſpread foorth his branches, which are wont to couer and occupie a great deale of roome round about it: and if they ſhould be any neerer one vnto an other, their boughes would grow one into another, whereas they craue to haue their ſides free & open. And this is the reaſon why they ſhould be planted vpon the borders of groundes lying vpon high waies, for by this means the great compaſſe which their branches take, do not hurt ſeed grounds, or not aboue halfe, and by this meanes the looking glaſſe wherein the husbandman may behold ſuch hindrance and diſaduantage as might come by ſcarſitie that yeere, ſhall not be far off from him or his hinds, who hold it for certaine, that great ſtore of walnuts doth preſage great ſpoile of corne. To ſet a tree of ſome other kinde amongſt them, is no more profitable then to lay the inheritance of ſome baſe and meane fellow, betwixt the demaines of two great noble men: for the walnut trees, which are naturally great ſpreaders in the earth with their great rootes, will rob it and eate it out of foode and ſuſtenance euen home to his owne doores, and couering it aboue will take from it both the ſun and the libertie of the aire. But in as much as the thinges of this world are ſo framed, as that there is nothing which hath not his enimie, you muſt beware of placing the walnut tree either vpon ſeede or plant neere to the oake, as alſo not to ſet it in the place where any oake, hath ſtoode at any time before: becauſe that theſe two trees haue a naturall hatred one vnto an other, and cannot couple

To remoue the walnut tree.

Pits to ſet the walnut tree in, or to remoue them into.

A ſigne of plentie or otherwiſe by the walnut tree.

Walnut trees muſt ſtand alone.

The oake an enemie to the walnut tree.

couple or sute together.

The grafting of the walnut tree. The walnut tree is grafted in February vpon it selfe, and vpon the plum tree in a clouen hole, howbeit the walnut tree doth not profit much or thriue when it is grafted vpon any other tree then vpon it selfe, because it abhorreth the company of all other trees: It must be digged about, that so it may not grow hollow by reason of the grasse. It must be remoued in hot and drie places in October when the leaues are fallen, and yet better in Nouember: but in cold places in Februarie and in March: and at either time in temperate places.

The beaten walnut tree becometh fruitful. This is a maruellous thing of this tree, that the more it is beaten yeerely, the more fruit it beareth the yeere after following, although the boughes be bruised and broken: for which cause good farmers are carefull to geld and weed out some of the boughes of such a tree, and withall doe make great and diuers incisions with some edge toole in the stocke of the tree.

Tender walnut shels. If you cast and spread ashes sundrie times and oft at the roote, and vpon the stocke of the tree, the nut will haue a more tender shell, and a more brittle kernell. It will grow fairer and beare fruit sooner, if you strike a copper naile into it euen to the midst, or else a wedge of wood. It will not let drop any vnripe fruite, if you hang at some of the branches or tie about his rootes white mullein, or some rent and torne fustian taken out of a dunghill.

Walnut without shels. Walnuts will grow without shels, if you breake the shell without bruising the kernell, and afterwarde wrap the said kernell in wooll or in the fresh leaues of the vine, and so put it into the earth. If the walnut tree displease you in respect of the harme it may doe vnto his neighbour trees, you may cause it to die, and presently dry away, if you strike into the roote thereof a very hot naile, or a wedge of mirtle tree wood, or if you put beanes to his roots, or a cloth dipped in the termes of women.

The gathering of walnuts. Walnuts must be gathered when they begin to cast their rinde, and when they are gathered, they may not by and by be laide vp, but first dried in the sunne.

The profite of the walnut tree. The profits that the walnut tree yeeldeth vnto his master are infinite: for of it he may gather to make excellent preserues, taking his nuts about midsommer: it yeeldeth woode for the kitchin, by being lopt of dead boughes, wherewith it is oftentimes troubled: but in cutting off this dead wood care must be had not to cut it off rounde, because it would be a meanes for to make way for the raine to enter in, and the wet of the night would settle therein, and in tract of time rot it to the hart, but it must be cut biace, and with a ridge, that so neither raine, nor the wet of the night may get in or rest vpon it. It graeth a rinde which is good for the things spoken of hereafter: it affoordeth shels, which make good ashes: it affordeth a kernell to be serued at

The wood. The rind, shel, kernell.

the

the table, seruiceable in the kitchin, and in lamps: and furthermore of the drosse of the kernell some make candles, in such countries as where the oile is much in request, as in *Mirebalois*, and thereabout: it affoordeth a gristle betwixt the two halfes of the kernell, which being dried in the shadow (after that the kernell is once perfected) and afterward made into powder, and drunke with a small draught of red wine, doth by and by asswage the paine of the colicke: as also the fruit comming of it, when it is worth nothing but to make refuse and outcastings of (as the nut growne old and all hoarie) ceaseth not notwithstanding to do good seruice: for and if you burne it lightly, or squease it out easily with a hot iron, the oile that then will come foorth of it, is singular good to take away blewnes of strokes, whether about the eies or elsewhere in the face or other part of the body: the old nut serueth also for other vses as shall be said by and by. The wood of the walnut tree is good and handsome to put in worke, when you woulde make any faire and pleasant worke, because it is listed and smooth of his own nature.

The gristle of the kernell.

The old nut.

The wood of the walnut tree.

The small buds of the walnut tree (called of the Latins *Iuli*) appearing in March, being dried, and after powdred and drunke with white wine, the weight of a French crowne, are exceedingly good in the suffocation of the matrix. The oile of the nut drunke to the quantity of fiue or six ounces, doth cure the colicke: if you mix a little quick lime amongst the oile of nuts, it will make a singular liniment for the swellings and shortnesse of the sinewes. The old oile of walnuts cureth the falling of the haire called *Tinea*.

If you pill off the greene pillings of the walnuts, and cast them into water, and after cast this water vpon the ground, there will grow from thence great store of worms, very profitable for fishers: if you boile the pillings in a caldron after they be fallen from the tree, as opening of themselues, and rub any kinde of white wood whatsoeuer with this water, it will turne to the colour of the walnut tree, but more faire and beautifull.

The rindes of walnuts.

Some steep the barke of the rootes of walnut trees in vineger, and after lay it vpon the wrests of such as haue the ague. This draweth out all the heat of the ague: but it swelleth the skin of the wrest.

The barke of walnut trees.

Some make a soueraigne mithridate against the plague (as we haue said in the chapter of rue) with two old walnuts, three figges, twenty leaues of rue, and one graine of salt.

Mithridate.

The walnut closed vp in a hen or capon set to the fire to rost, causeth the said hen or capon to be the sooner rosted.

To boile a capon

The distilled water of vnripe walnuts, gathered about midsommer, is singular good to driue away tertian agues, if one take about some fowre or fiue ounces of it.

Tertian agues.

The walnut either new or drie (but yet the drie somewhat lesse) is

of

of hard digeſtion, cauſeth headach, and hurteth the cough and ſhort breath, and therefore it muſt be vſed ſparingly: ſteepe whole walnuts pillings and ſhels and all in a ſufficient quantity of water vntill ſuch time as that their ſhell be ſufficientlie ſoftned and moiſtned, and that the kernell may be pilled eaſilie from the thinne filme that couereth it ouer, as it falleth out in greene walnuts: this done, take the kernels ſo pilled, and let them ſteepe in a pot well couered in very good aqua vitæ; giue two daies after, two or three of theſe kernels whole to a woman that cannot haue her termes, for the ſpace of eight or nine daies before her accuſtomed time of hauing her termes, and that in the morning, and after that ſhe hath purged. This medicine hath neuer a match in prouoking of the termes that are ſtaied, and it is a thing well prooued. And as for the manner of keeping and preſeruing of them we will ſpeake in his fit place.

The biting of a mad dog.

If the ſame day that you haue beene bitten of a dogge (which you doubt to haue beene madde) you put vpon the biting an old nut well braied, and after take it away, and caſt it to a hungry cocke or hen, if the ſame eating it die not, it is a ſigne that the dog which did bite you was not madde, but and if it die, then it is a ſigne that he was madde, and therefore the ſore muſt be looked vnto as is meete within three daies.

The fowre and thirtieth Chapter.

Of the Oliue tree.

THe Oliue tree is a kind of tree for the moſt part ſmal and thick of leaues and rounde, for there are ſome ſorts alſo that haue great branches diſperſed here and there out of order: both the one and the other ſort are contented with a ſhallow grounde, for in many places they growe vpon the thinne greene ſwarth or turfe that couereth the rockes, and vpon the ground hanging vpon the ſides of ſome great ſteeres; thus you may ſee how the oliue tree diſpoſeth of it ſelfe euery where, how vnfitting and vnlikely ſoeuer that the ground bee, prouided that it haue a warme aire, and Eaſterly or Southerly winde at commandement. He that woulde carefully appoint out ſuch a plot, as the vine would require: might erre in many places: for the oliue tree is not ſo much to be regarded in reſpect of his ſoile and ſeate as the vine, for it contenteth it ſelfe with a great deale leſſe then the vine will. If you giue it grounde that is good and fatte earth, and the ſunne and windes, which it delighteth in, in other places, doubt not but it will do as the Spaniard, who pleaſeth himſelfe with as good as nothing, when he knoweth not how to amend himſelfe or do better, and performeth his ſeruice therewithall: but and if he come where he may but haue the ſmel of it, he is ſtuffed as full as the greateſt glutton

glutton in all *Lymoſin* : ſo the oliue tree being once ſeaſed in his tallance of a good peece of ground, contenteth it ſelfe and beareth fruit handſomlie. As concerning the planting of it vpon the north in hot countries, and there ſeating it vpon the tops of mountaines or leſſer hils, or vpon the ſouth in colde countries, theſe are but troubles and paines without any great foundation: for as concerning cold countries there is no talke to be had of growing of oliue trees in them, and as concerning hot countries, there is neither taking nor leauing of quarters or coaſts in reſpect of this tree.

To plant the oliue tree.

The oliue tree doth increaſe it ſelfe by ſhootes which it putteth forth at the foote; for being pulled vp vnhurt, and planted elſewhere, they growe vp very ſpeedily : and to prepare them a faire place to grow in, you muſt dig them pits where you minde to ſet them, a yeere before hand, of fower foote depth; and, if you cannot haue holes made readie for them ſo long before, but muſt be conſtrained to ſet them downe in new digd ones, then you muſt ſeaſon and purifie the ſaide holes by burning of the leaues and ſome ſmall branches of the oliue tree therein, or elſe ſome ſtraw at the leaſt : for the fire drieth vp the euill iuice of the earth of the ſaid hole, in the ſame manner as the ſunne ſhould haue done by little and little all the yeere long. Some would that it being prickt downe of a branch, it ſhould not be ſet in ſo fat a ground, becauſe the oile would not be ſo excellent, as and if it were planted in a ground betwixt fat and leane, and that not without apparance of truth : but whether it be planted in the one or the other, it will be husbanded euery yeere for the ſpace of a great circle round about the foote; for indeede he that tilleth and dreſſeth his oliue ground yeerelie, doth a great deale better then he that doth not. In any caſe it would not haue the rootes ſcanted of libertie, but to ſpread and lie at large : and, if you beſtow any manner vpon it, being the thing it loueth well, then beſtow vpon it goats or horſe dung well rotted, and that after you haue digd it about the foote, to the end that the dung may mingle well with the earth ſo digged. After you haue once ſet it, remoue it not thence for the ſpace of fower or fiue yeeres, neither then muſt you dare to be ſo bould, if that it haue not gotten a ſtocke as thicke as a mans arme, and taken it vp, take vp therewithall the greene turfe of the ground where it ſtood and whereunto his rootes ſticke faſt, and when you ſet it downe, giue it the like ſituation for coaſt and quarter that it had before.

To graft the oliue tree.

You may graft it vpon it ſelfe, and it will beare more thicke and kinder fruit : or elſe vpon the wilde Oliue, but then the profit is not like, as when it is grafted vpon the garden and tame one. The Italians graft it vpon the vine, boring the vine ſtocke neer vnto the earth, and putting into this bored hole a ſmall oliue branch, that ſo it may take neere at hand and at the firſt offer; both the nouriſhment and

vinie qualitie of the ſtocke of the ſaide vine: along the which muſt be ſet a ſtake or thicke prop to helpe it to beare vp the waight and burden of the graft when it is great, and theſe Oliues will taſt both of the one and of the other, and become as it were vined Oliues. Such a proofe is not to be miſliked, in as much as the variablenes of nature is ſhewed thereby which is content to ſuffer her ſelfe to be drawne to bring foorth a mungrell fruite or ſecond hermophrodite by the coupling togither of two natures in one: but the end of ſuch experiments turne not to profite, neither for the preſeruing of the oliue, nor for the drawing of oile Omphacine, nor yet any other, for which endes God ordained and gaue vs the oliue tree. And to ſpeake the truth, the mingling of kindes and differing rootes of trees, (if it be not according to and iumping with the naturall vertues of them both, and according to an agreement in ſome good meaſure of perfection, and yet furthermore well and throughly allowed and approoued by reaſon:) becommeth rather a monſtrous birth, and an inforcement of nature, then any profitable Impe either for the health of man, or for the ſauing and ſparing of it ſelfe. Heereof are ſufficient witneſſes I know not how many ſortes of Apples, Peares and Cherries, thus iumbled together by offring force vnto nature without iudgement or reaſon, and but that they become ſomewhat admirable vnto the eie, they yeelde no profit vnto the body of any man, more then to draine his purſe drie: except there be aduiſed iudgement in making choiſe of that thing and way which may be both for the aduancement of the yeerely profits of his ground, and for the good preſeruation of his health. But leauing off theſe diſcourſes, let vs returne againe to the Oliue tree, which hath both more beautie in it ſelfe and more profite for the maſter if it be contained in a reaſonable ſtature for height, and ſpread it ſelfe abroad, then and if it ſhould ſhoote vp and become very long and tall. For if it exceed the height of ten foote and a little more, it is abated and hindred in the putting foorth of ſo many bloſſomes as it would, and hath his boughes cruſhed in peeces which grow vp at that pitch, when the winde bloweth ſtrong and thereupon alſo it caſteth his fruite in vntimely ſort, euen when it is very full. For this cauſe in many places there are ſome found which perforce doe turne downeward ſuch boughes as grow ſo high, not regarding their ſtanding out like boſſes and bunches, prouided that they be low and lurkingly couched: becauſe that being ſo truſſed vp they are free from ſtormes and tempeſtes, and abound the more in fruite: and if yet the Oliue tree would be climing higher, then you muſt cut off ſuch aſpiring boughes or branches, and this muſt be done after the gathering of the Oliues is paſt. It is true that the Oliue tree muſt be eight yeere old, before you reforme it in the boughes growing ouer high, by cutting them off with a ſaw: but as for the ſhootes putting foorth at the

foote

foote and along the ſtocke, you muſt not refuſe the cutting of them off how yoong ſoeuer the tree be. The profit comming both of the one and the other, is that it aboundeth more in fruite: and this is the cauſe why ſome commonlie ſay, that he that husbandeth and ordereth it with care and taking of paines about it, helpeth it forwarde in the bringing forth of his fruite: as alſo he which manureth it as it earneſtly craueth: but he that cutteth downe ſome boughes off from it, compelleth it by all manner of meanes to become fruitefull; ſeeing the nature of the Oliue tree is ſuch (as *Quintilian* ſaith) as that it being cut off and made bare of boughes and high mounting tops, it ſpreadeth rounder and broader, and putting foorth moe boughes, doth alſo beare the more fruite, becauſe the property of the Oliue tree is to bee ranke, either in boughes or in fruit. It hapneth ſometime to the oliue tree that it bringeth foorth but one onely bough, exceeding all other in beauty and height. When this falleth out it muſt be cut off without delay, for this is a ſigne that the tree in ſpace and time will conueigh all his whole workemanſhip that way, and will leaue nothing for anie thing elſe: and vpon this will barrennes come in the end. And whereas the Oliue tree craueth to be left bare and thin of boughes, and then beareth more fruite, yet if the boughes be ſtriken downe with poles when the oliues are beaten downe, it groweth much worſe and goeth backward, forſaking and forſlowing his former fruitfulneſſe. So that hereupon you ſee that in gathering of oliues, you may not beate them downe with poles, but rather you muſt haue ladders borne vp vpon a goates foote, to lift you as high, as that you may gather the oliues with your hand. There are ſome countries where the oliue trees doe reſt and giue ouer bearing for one yeere after that they haue borne, and then the yeere after that they beare out of all meaſure, as in Portingale, and the oile that is made of thoſe is good in the higheſt degree. You muſt in any caſe looke to the inconueniences and harmes that the oliue tree is ſubiect vnto. Manie times in drie or moiſt places oliue trees are ſpoiled and become all ouergrowen with moſſe, which muſt be taken away with one toole or other: for elſe the oliue tree will neither abound in leaues nor fruit. *Oliue trees full of moſſe.*

Sometimes the oliue tree although it be faire, yet beareth no fruit, and then you muſt bore through the ſtocke with a wimble, and put in good and deepe the graft of a greene bough of a wilde oliue tree, or of ſome other oliue tree that is fruitfull, and that vpon either ſide of the hole: then afterward to cloſe vp both the ſaid holes with mortar mixt with ſtraw, and the tree as a new made thing will become fruitfull by the grafting in of this graft. Others in ſuch caſe do vncouer the roote and renew the ſeate that it ſtandeth in. Againe it may be remedied, and the foote not vncouered, with the lees of vnſalted oliues, with mans vrine that is old, or with the ſtale vrine of hogs. *The barren oliue tree.*

The fruit spoiled.

It falleth out many times that the fruite is spoiled and lost, by the naughtinesse of the ground where it is planted : and then it must bee thus remedied. The tree must be vncouered very lowe at the foote round about and quicklime put into it, more or lesse according to the greatnes of the tree: for a little tree craueth but a little. The oliue tree sometimes beareth much fruit or flowres, and notwithstanding by a secret disease that is in it, it cannot bring them to a good end to ripen them : when this happeneth the stocke must be vncouered round about, and the lees of oile mixt with sweete water afterward applied thereto.

The withered oliue tree.

Sometimes the oliue tree becommeth all withered and falling into a consumption, which thing may happen through wormes or other vermine which spoile and eate the rootes, and the remedy is to water the foot with lee of oliues. It sometimes also falleth out that the fruit of the oliue tree falleth before it be ripe: for a remedy whereof take a beane that hath a weeule within it, close vp the hole with wax: afterward take a greene turfe from neere vnto the roote of the oliue tree, and put the beane in it, and so couer it with earth, and the fruit of the oliue tree will not fall.

Aboue all things, you must keepe oliue trees from turtle doues, stares, and other such like birdes which are exceedingly giuen to licorishnesse. As concerning the oliue tree and oliues, you may see more at large in the second booke, and of the oile in this third booke.

The fiue and thirtieth Chapter.

Of the date-tree.

The date-tree.

THE date-tree hath much a doe to beare fruit in this countrie, but and if it beare, yet it is very late : it craueth to haue a hot aire and country, or at the least well tempered, and the fruit which it beareth, is ripe before the oliue tree be good. It delighteth in a light, sandy, and vntilled or champion ground : and it is a plant either for Aprill or May, to be planted of a small plant with the roote. The stone is set new in October, and there must ashes be mingled with the earth where it is planted : and to make it grow and beare goodly fruit, it must be watered often with the lees of wine. Looke in the second booke.

Whoso is carefull of his health let him not eat any dates, or else as few as possibly he can, because they cause the headach, obstructions, wringings in the belly and in the stomacke. And yet notwithstanding this, they staie the fluxe of the belly, and put into gargarismes they cure the fretting and cankrous vlcers of the mouth.

The

The sixe and thirtieth Chapter.

Of the chesnut tree.

THE chesnut-tree is a kinde of tree growing verie great, high and thicke, differing but a little from the walnut-tree, it beareth a verie profitable fruite, and which hath not his like, whether you respect the shape, his nature, or the nourishment that it affoordeth vnto man, as is to be seene in *Auuergne, Sauoye, Perigueux,* and *Limosin,* and especially in the countrie of *Lionnoyse* and *Daulphinie,* where the great chesnuts grow: in which countries, especially in *Parigord,* the greatest parts of the forrests are of chesnut trees, and an infinite number of people liue not of any other thing but of this fruit, eating it sometimes boiled, sometimes roasted, sometimes made into bread, sometimes into broth with milke, sometimes in meale baked after another sort. Likewise nature seeing the profit that redounded vnto men from this so profitable a fruit, hath fenced and armed it with strong harnesse and such mightie armour as that it goeth for proofe, both against the tooth of the beast, and beake of the birds, so long as it is kept within his vppermost cote and prickly couering; yea and furthermore vnder his rinde and pilling when it is taken away, with another rinde that is good and hard, and with another that is more soft and fine for the better preseruing of it. This tree pleaseth it selfe with such a ground as is lying vpon the North and being moist, rather then drie, or standing vpon the South, for as much as it loueth the shadow better then the open sunne; the valleies better then the mountaines; a soft ground better then that which is hard and massie, and a light ground, and yet not a sandie or clayie. To haue good store of chesnuts, it is better to sow them then to plant them, and that in a well digged and stirred ground being also neat and well battled, and that in the moneth of March, setting them in the earth a foote deepe the sharpe ende vpward, fower or sixe of them togither taken out of great and ripe chesnuts, and euerie hole distant from another, the space of a fadome: and two or three yeeres after to plant them in some other places fortie foote asunder euerie one from another, and that in respect of the great compasse which they take with their branches on euerie side. If you would haue it to grow of a branch, it must be such a one as hath roote: for to make it grow of it selfe by pricking downe into the earth some science, it will neuer be. Wherefore the most certaine way is to make it grow of the fruit it selfe, pricking it downe into the earth, as hath beene said: notwithstanding, it may be propagated or multiplied burying and sinking some of his new shoots in the earth. It taketh likewise if it be grafted in the cleft or in the canon or gunlike graft, and that in March, Aprill and May vpon it selfe,

or vpon the beech tree, or vpon the willow, but it then ripeneth very quickly, and beareth a fruit of a sharpe and vnpleasant taste.

The gathering of chesnuts. Chesnuts must be gathered in Autumne, and kept till their rindes be become of a verie bay colour and cast out their fruite. Howbeit if one would keepe them a long time, it were better to beat them downe with poles whiles they be greene, and not to tarrie till they fall to the ground: for those will not keepe aboue fifteene daies if they be not presently dried in the smoake.

To keepe chesnuts. The manner of keeping chesnuts, is to couer them with common nuts: for the common nut hath power to drie and inuade the excrementous moisture of all things, whereunto it is applied: or else to gather them reasonably ripe in the decrease of the moone, and to put them in a coole place in sand, or in some vessell: but let it stand continually in the coole, and so well stopt as that no aire may get in, for otherwise they will be spoild and rotten in a short time.

The fairest, best fed, and most pleasant chesnut of all others, is that which groweth in the countrie of *Lyonnoise*, and are called great chesnuts of *Lyons*: or else I know not as yet from whence they haue taken their name. But howsoeuer it is, besides the profit of the nourishment and sustenance which the chesnut yeeldeth: the chesnut tree is of great vse to make vessels of, as caske to put wine & other drinks into, to build bridges withal, as also conduit pipes, pillers, and infinit other things about buildings, engines, props for vines, pales and railes for parkes, gardens, and other such places.

The leaues of the chesnut tree. The leaues of the chesnut tree after they be fallen are gathered vp before any raine come to touch them, and serueth for litter for cattell, which beeing thus turned into dung serueth to manure withall: many vse them to fill featherbed tickes withall, and call them mockingly by the nickname of parliament beds, because the leaues make a noise when you lie downe vpon them, when you rise vp from them, or when you moone your selfe any manner of way to or fro.

The ashes of the chesnut tree. The ashes of the wood of chesnut tree is not good to make lee of, because it spotteth and staineth the linnen so mightily, as that such staines will neuer be got out.

The hardnes of womens brests. Chesnuts with vineger and barley flower applied in manner of a cataplasme vnto womens brests which are hard, doe make the same soft: stamped with salt and honie, they are applied vnto the bitings of mad dogs: the rindes or skins thereof are put many times in lees which are made to colour the haire yellow: their red inwarde rinde which lieth next vnto the white kernell, being drunke the weight of two drams, stayeth all manner of fluxes of the belly and of blood, as also the whites of women with equall quantitie of Iuorie. Chesnuts in as much as they be windie, they prouoke men to lust: being eaten excessiuely

excessiuely they cause the headach; they swell and harden the belly, and are of hard digestion: such as are roasted vnder ashes are lesse hurtfull, than the raw or boiled ones, especially if they be eaten with pepper and salt or sugar.

The seuen and thirtieth Chapter.

Of the Pine tree.

THE pine-tree craueth a sandy, light, and stony ground, and therefore it groweth willingly in outcast and contemned plots: such as there are many of by the coasts of the maine sea. It is planted in the moneth of October and Nouember, and it is not to be translated till after that it hath beene three yeeres planted, and then it must be seated in a well digged place, and in an earth well manured with horse dung. This tree hath a nature contrarie vnto the walnut tree, because it causeth to thriue and prosper whatsoeuer is set vnder the shadow of it: againe it is not so combersome, as to keep away the sun and the winde from the things that ioine next vnto it or vnder it. The pine kernels (for to be kept) must be put in new pots full of earth together with their shels. *The pine tree.*

Such as haue weake lungs, or are growen leane by some long sicknesse, must go a taking of the aire into the forrests, where there are good store of pines, bicause such aire is very profitable for them. Their kirnels steeped in warme water to take away their oily quality and sharpnes, being often eaten do cure the ache of the sinewes, the ache of the backe, the palsey, benummednes, trembling of the parts, weaknesse of the lungs, shortnesse of breath, vlcers of the lungs, vlcers of the reines and of the bladder, the scalding of the vrine, and make fat such as are leane and wasted, stirre vp lust in such as languish and are weak vnto the worke of venerie: they cure the gnawings of the stomacke, taken with water of plantaine or iuice of purslaine. The new nuts of the pine tree distilled in a limbecke, make a singular water to take awaie the wrinkles of the face, and to stay the excessiue great growth of womens breasts, if you apply a linnen cloth steeped in this water vnto them. See in the second Booke.

The eight and thirtieth Chapter.

Of the plum tree.

THE plum tree is a common and ordinary tree, agreeing with all countries of whatsoeuer conditions, howbeit the damaske plum tree is more cheerefull, and pleaseth it selfe better in a dry country and hot aire, then it doth elsewhere. The plum tree will grow easily, and increase infinitely, for and if it be once brought into a *The plum tree.*

plot of ground, in a ſhort time it ſeazeth it ſelfe vpon the whole place, and if it be planted on the one ſide of a wal, it will leape within a ſhort time after vnto the other ſide of it, and ſo placeth the wal in the midſt: it deſireth not to be dunged, becauſe the dung maketh the fruit to mould or rot, and eaſily to fall downe: but it would be oft digged at the foot round about, as far as the compaſſe of his roots ſtretcheth: and watered in drie weather. It groweth vpon a ſtone buried a foote deepe in the earth that is fat, and that in Nouember or Februarie, hauing ſteept the ſaid ſtone for three daies ſpace before you ſowe or ſet it in lee, or longer in a compoſition of cinnamom water, if you woulde haue it to yeeld any aromaticall ſmell: or elſe of a meere plant hauing a roote in a pit a little digged, becauſe it graſpeth not much ground with his foot, but yet it muſt be good and light and eaſie to be pearced round about, for the affoording of an eaſie and plentifull ſeat vnto it. It groweth alſo in proſperous ſort if it be grafted after the ſcutcheon-like faſhion, either vpon it ſelfe or vpon the ſweete cherrie: or elſe in the cleft, and that beſides the two former, vpon the apple tree, almond tree, peach tree, and ceruiſe tree: of all which ſorts of grafts, that is the beſt, which is vpon it ſelfe, or vpon the ſweete cherrie tree: for all the reſt are but meanes to cauſe the plum to degenerate from his nature, and to become baſtardly, as well in their ſhape as in their taſte. The fitteſt time to graft them is in Februarie or in March, and then rather in the ſtocke then in the barke.

There is a certaine kinde of ſcab which doth take hold of it, and that either by letting the gumme to ſtande and hang about it, and to waxe old, which it caſteth foorth, or elſe by reaſon of the moſſe which it gathereth, and for that cauſe it would haue his gumme taken away at the beginning of colde weather, and the moſſe rubbed off with a rough linnen cloth, or a moſſe rubber of horſe haire, and this at all times. There hapneth likewiſe vnto it an vndiſpoſednes through the fault of the gardener, not caſting the ground about the foote, or cutting off the rotten and corrupt woode: whereupon it turneth in and rowleth it ſelfe vp into ſmall balles, ſometimes in one place, ſomtimes in moe, and this is a diſeaſe which being neglected, doth ſpread it ſelfe in the end, all ouer the tree, from one end to another, and bringeth it wholie to deſtruction: and therefore ſo ſoone as you ſhal ſee the ſick tree in this ſort to crumple and runne vpon heapes, you muſt cut off very cleane all the boughes thus diſeaſed, whereof it would be murdered and kild, euen to the ſound and whole branches, and withal to order and husband it in all good ſort about the foote, to the taking away of this euill humour, which in this manner crooketh and cauſeth to turne round his wood. There hapneth alſo ſometimes by reaſon of ſome ſecret cauſe, that it ſo languiſheth, as that it giueth ouer to beare fruite: for the putting of it in hart againe, you muſt lay open his

The plumtree out of frame.

The languiſhing plumtree.

his roots, and caſt vpon them the lees of oile mingled with water, or elſe the ſtale of oxen, or mans vrine, or caſt vpon the rootes the aſhes of vine branches throughly boiled.

All plums in generall are colde and moiſt more or leſſe, the ſweete ones leſſe, the ſowre and ſharpe ones more.

Laxatiue plums.

The ſweete plums haue vertue to looſen the belly, and yet they will purge more ſtrongly, if at ſuch time as when the plum tree is yoong, there be taken from it ſome part of the pith of the ſtocke, or elſe one of his boughes, and the place filled vp againe with ſcammonie. They will in like manner procure ſleep, if you put into the ſaide emptied places the iuice of mandrakes or opium. Sharpe and tarte plums are giuen to ſtaie the belly. There is great accounts made in *Prouence* of the plums of *Brignoles*, by reaſon of their pleaſant taſte. In *France* throughout and euery where elſe, there is a ſpeciall account made of damaske plums, which are of three ſorts, the blacke, red, and violet colour, all of them prooning very excellent in the countrie of *Tourraine*, for from thence are ſent throughout all *France* of them dried, which are vſed at all times. The plums of *Pardigoine* are likewiſe greatly eſteemed by reaſon of their plumpnes and pleaſant taſte. Furthermore dates are very rare and ſcarce in this countrie, namely thoſe which come neere to the dates of other ſtrange countries, which are more pleaſantly reliſhed then any other. Some likewiſe make accounts of *Rhemiſh* plums dried, by reaſon of the pleaſant tartnes and ſharpnes which they haue.

Sleeping plums.

Plums of Brignoles.

The nine and thirtieth Chapter.

Of the pomegranate tree.

The pomegranate tree.

THe pomegranate tree is a tree of little husbanding, yeelding ſmall delight to the ſight, by reaſon of his ill fauoured branches and boughs: ſaue ſo long as it is bearing his fruit before it come to perfect ripenes, and yet put out, quartered, and as it were laid open to the ſhew, out of his coat and couering, this tree is the moſt delightſome to behold of all others: the frame and faſhion of whoſe flower and fruite being well conſidered, is a worke of nature right admirable: there is not that raine, that ſcorching heate of the ſunne, nor yet almoſt that fading and decaying old age, which can cauſe it to forgoe his goodly ſhewe of rubies: and yet notwithſtanding how famous a thing ſoeuer it be, it groweth without any dainty or delicate handling and looking to, and that ſometimes at the foote of a wall, ſometimes in the midſt of a heape of ſtones, and ſometimes amongſt the hedges by highwaies ſides. It is true that it craueth a hot countrie, and where it may not be debarred of the ſunne, and if it happen to be ſet at any time in a fat ground, it maketh his beſt aduantage of it, being in this

reſpect

reſpect like vnto the oliue tree, whereof we haue ſpoken before. And if it be in ſuch a countrie as is fit for it, you neede not to thinke either of the digging or vnderdigging of it: for it reckneth not of ſeeing it ſelfe ſet in a great heape of ſtones, as neither to breake croſſewiſe through a ruinous wall, neither ceaſeth it for any ſuch thing from bringing foorth his good and pleaſant fruite: but in cold countries where it hardly groweth it would be digged and husbanded about the foote twiſe a yeere, that is to ſay, in Autumne and in the ſpring. It will grow either vpon rootes or of grafting in the cleft, and that vpon it ſelfe, about March or Aprill: but and if you will plant it vpon ſome branch that hath rootes, you muſt chooſe ſuch a one as is a handfull thicke, and make it a delightſome and fine moulded pit. Some would haue it thruſt into the earth with a ſtake by it, as is vſuall in ſetting willow plantes, but I cannot finde that this way of thruſting it downe thus into the earth doth prooue to any good. The Pomegranate tree will not looſe his flower, if when as it is flowred you compaſſe the ſtocke about with a ring or hoope of leade, or with the old ſlough of an adder.

Pomegranate wine.

The wine of pomegranats is made of this ſort: you muſt take the ripe kernels cleane and free from their skins, and put them in the preſſe, where they muſt be preſſed by and by: ſome ſtraine them throug bags made for the purpoſe: ſome cauſe them to be put into veſſels vntill it be well fined: in the end they powre oile vpon them that they may not corrupt or grow ſowre.

The pomegranate apple put in a pot of new earth, well couered and luted with claie, ſet in an ouen, and in the end ſo well parched as that it may be made into powder: then ſuch powder taken the weight of halfe a crowne with red wine, doth helpe the partie marueilouſlie that hath the bloudie fluxe. The innermoſt flowers of the pomegranate made vp in conſerue with ſugar, haue an incredible force to ſtay all manner of fluxes of the matrix, whether white or red, taken in the quantitie of halfe an ounce with the iuice of ſowre pomegranates or red wine, or water wherein ſteele hath beene quenched: as alſo to ſtaie the bloudie fluxe, the ſhedding of nature, the fluxe of the guts or of the ſtomacke. The kernels of ſowre pomegranates dried, made into powder and after mingled the weight of an ounce, with a dram of fine powdred frankincenſe, and two drams of this powder taken euery morning, do ſtay the whites.

The fortieth Chapter.

Of the Ceruiſe tree.

The ceruiſe tree.

THe ceruiſe tree as wel the male as the female, delighteth in a cold, moiſt, and mountainous place, but in a hot and plaine place it thriueth

thriueth not. It must be sowen of the stones, and some plant it of shootes in Februarie and in March. It is grafted in the end of March and Aprill, vpon it selfe, vpon the thorne or quince tree, and vpon the peare maine tree in the barke or stocke: it must be oft digd and watered, and let him that can, lay dung vnto the foote of it mingled with ashes, and that in very deepe pits.

Ceruises are gathered in Autumne before they be ripe, they are gathered by handfuls tied together: or else they are orderly laid vpon straw to ripen them: for otherwise they are not fit to be eaten because of the harshnes.

The wood of the ceruise tree is very solide, close, and hard, and therefore in great request to make tables of, and other house implements: as also to make goades and whips for neatherds.

There is wine made of ceruises, as there is of peares. Ceruises haue force to restraine fluxes of the bellie: and for this cause they may be dried in the sunne before they be ripe, and afterward vsed. *The fluxe of the bellie.*

He who hath sometimes beene subiect vnto the biting of a mad dog or otherwise, must not sleepe or rest vnder the shadow of the cerunise tree: for if he doe, it will hazard him to cast him into his former madnes: such is the force of the cerunise tree to raise vp, renew and reuiue a qualified and appeased madnes. *Madnes.*

The one and fortieth Chapter.

Of the Corneile tree.

THe corneile tree which the Latins call *Cornus* (so called because his stocke is of such knottie and solide woode as that it seemeth to be horne) as well the male as the female, delighteth to be planted in a fat and sandie ground, and as for other things it would be plãted or grafted after the maner of the cerunise tree: in any case it must not be planted neere vnto where bee-hiues stand, neither suffered to grow there of it selfe: because that bees hauing tasted of the flowers, fall into a flux of the bellie and die thereupon presently: but the contrarie falleth out in men, who by hauing eaten of the corneile tree berries, or of the conserue made of the flowers of fruit, do fall into a costiuenes. The fruit is long and round, fashioned like an oliue, and is not ripe before Autumne, and then it becommeth of a red colour or the colour of waxe. This fruite containeth in the pulpe of it a stonie bone. Some make of the pulpe or flesh a confection like vnto marmalade with sugar, and it is very singular in bloodie fluxes and the staying of womens termes. *Of the corneile tree.*

The

The two and fortieth Chapter.

Of the Iuiube tree.

Of the Iuiube tree.

THE Iuiube tree is a tree that is verie rare and seldome seene in France, but much in the countrie of *Prouence*, especially about *Dupont, S. Esprit*, and in *Languedoc*. This is a tree of great reach and compasse both for his height and bredth, and naturally it loueth to be in hot countries, not so much seeming to regard the soile wherein it is set: likewise in many places of the said countrie it is seen in turning waies and publike places; but and if you would haue it to grow in cold countries, you must not so lightly regard it: for you must see that it be seated in a good fat ground, and manured with pigeons dung, and ioining to the side of some wall, whereby it may haue the reflexe of the South sunne, of which you must looke to giue it the ful fruition before all other thinges. Sometimes it groweth of kernels, three or fower of them being put into the earth together, and their sharpe ends downward, the holes must be a foote deepe, and heaped full of cowes dung mingled with ashes of vine branches, and that in Aprill in hot countries, and in May in such as are colde. And when it is once growen vp, and become somewhat strong, which will be about the terme of eighteene monethes or two yeeres after, then you shall remoone it into some other place with such obseruations as haue beene deliuered concerning others, and concerning the countrie as it shall fall out hot or cold. Some likewise plant it of the roote, when it riseth vp into shootes which haue small threddie and hairie rootes, loosing and pulling them vp gently, together with some of the principall rootes of the tree, for feare of parting them and their threddie rootes, planting them in pits prepared some fifteene daies before, in a light ground & that in March. As concerning their sciences to make them grow, it is not so certaine a thing as that it deserueth the troubling of ones head about it: but for grafting of it in the cleft either vpon it selfe, or vpon the medlar tree, or vpon the quince tree, you may if you will: but grafted vpon it selfe the Iuiubes will be more grosse and thicke, and of a more pleasant taste: as generally all manner of fruit is, being grafted vpon a tree of his owne kinde. Some will say that it reioiceth during the time of winter, to be compassed about with a heape of stones, and when sommer commeth to haue them taken away: and that it craueth likewise to haue oxe dung laid to the roots of it: but in those countries where there are such great store of plants, this peece of seruice is altogither neglected, which notwithstanding is the meanes to cause great store of faire and good fruit.

The

The three and fortieth Chapter.

Of the Bay tree.

THE bay tree is very common, ſeeing it groweth in any ground, as ouerthwart the conieburrowes and heapes of ſtones. It groweth many times from vnder the foundation of wals. It is likewiſe to be a countrieman in euery coaſt and quarter, but yet his naturall inclination and birth-right is to be in hot countries, or at the leaſt temperate: and therefore being inticed ouer into cold countries it muſt be much made of and well welcomed when it commeth there. For indeede it muſt be planted in a fat, ſolide and good ſoile of earth, neere to ſome wall where he may haue the South Sun to comfort him with a double comfort, and at the approach of winter it muſt be manured, ouercaſt and couered with long ſtraw in the ſtrength of the winter, or elſe well caſed and wrapt about with mats: it muſt alſo be vnderdigd for the firſt foure or fiue yeeres after his comming and bearing, and that in March and April. And yet if notwithſtanding all this pain and induſtry taken it ſhall happen to be extremely and rigorouſly intreated of the froſt, and that the leaues ſhall begin to wither away and the wood to wax blacke, then you muſt adde more ſtore of earth vnto it at the foote and ſtrengthen it there, in the moneth of March, if that the cold put foorth and begin to be dealing the ſame yeere: for the dung will haue kept the rootes and claſping gripes in force and whole vntouched, and ſo it will not faile to put foorth with ſpeede new ſhootes and ſprigs in abundance, which will be fit to multiply and propagate the winter following in the ſaid month of March, at which time the ſap draweth vp vnto the barke, if ſo be that you deſire to haue great ſtore. It taketh alſo of a branch, foreſeen that it be ſet in a fat and blacke earth which is moiſt. The time to ſet it of root, plant or branch is either in Autumne or in the Spring. It is ſowne in the ſame ſeaſons a foote vnder ground and fowre berries together: and when one yere is paſt, you muſt plant it where you will haue it abide. In any caſe you may not ſow it or plant it neere vnto any of the latice worke or climing and running frames made for the vine, much leſſe neere vnto the plant it ſelfe, becauſe that the Bay tree is altogether enemy vnto the vine aſwell in reſpect of his ſhadow, as of his heate, which draweth away all meanes of growth from the vine. Looke in the ſecond booke. *The bay tree.*

The leaues of the bay tree doe preſerue, keepe vncorrupt and make faſter the fiſh that is fried, eſpecially that which is fried in oile, laying them by beds one vpon another: they performe in like maner the ſame good vnto dried figs, damaske or fraile raiſons, if you ſtraw of them amongſt the ſaid raiſins in the fraile.

You

You must obserue as well in the leaues of the bay tree as in those of the Iuniper and Elme tree, that they being cast into the fire do presently crackle, and that the cause of this is for that they take fire before their superfluous and raw moisture be consumed and spent.

The leaues of the bay tree dried and rubd one against another, if there be put betwixt them a little powder of brimstone, doe cast out sparkles of fire, as doth the steele and the stone, in like maner do itme leaues. The boughes of bay tree stucke downe in arable ground doe keepe the corne from mildew and blasting. Some are of opinion that tempests and lightning, will turne away from those houses and places where there are hanging any bay tree boughes, whether it be at the chamber floores, or else at the doores or windowes.

The tender crops of the bay tree boild with flowres of Lauander in wine do heale hardnes of hearing and noises in the eares, if the vapour be taken thereat with a funnell: the *Vuula* being fallen is againe restored to his place, if you lay the baies of the Laurell trees very hot vnto the top of the crowne of the head, with equal weight of cumin, isope, organy and euforbium mixt together with hony. The baies of laurell pound with wheat bran, Iuniper berries and garlicke heated in a hot frying pan, sprinkled with wine, and laid to the flankes, doe prouoke the retained vrine. If women with child and neere their accompts, do eat euery night going to bed seuen laurell baies or bay berries, they shall haue a more easie trauell and deliuery.

The fowre and fortieth Chapter.

What space must be left betwixt fruite trees when they are remooued.

The greatnesse of trees is to be considered.

THat you may fitly appoint the standings of trees, & their distances one from another, in respect of the trees themselues, compared one with another: you must first consider the height, fulnes of the leaues and boughes, and spreading of the same, according as euery sort of tree doth ordinarily grow and attaine vnto: and besides the ordinary how by place affoording abundance of nourishment the tree may exceede and surpasse it selfe in height and bredth, for that fruite trees would not be incombred aboue head or ouer his top, but would haue the breathing and blowing of certaine windes at libertie, and with sufficient space fauourablie to light vpon them, and withall the fruition and benefit of the sunne: in all which points, the vnequall proportion of one tree vnto another in height or bredth doth offer let and hinderance. And yet further, if they would haue their waggings and plyings to and fro to be free, that so they may play at libertie when the winde tosseth them, how greatly should the exceeding greatnesse of the neighbour trees disturbe and trouble one another, if

care

care and aduise be not taken in the first planting of them? And therefore you must haue regard and cast an eie about you for this cause, that so you may well and profitablie appoint out your distances and spaces betwixt one and another: for in good and fat groundes, where trees may grow much, you must allow more space then elsewhere: and further you must note, that one tree planted well at libertie, whatsoeuer the place be of it selfe, doth fructifie and beare a great deale more.

The space and distance betwixt trees.

If you minde to plant thicke and grosse trees all one a row, and vpon high waies and against the hedge of fieldes, then you must leaue them some thirtie fiue foote of space one from another, but and if you intend to plant manie rowes in one and the same place, then you must be sure to leaue fortie fiue foote space betwixt euery two, and as much betwixt one ranke and another, that so the boughes may the more freely spread themselues euery waie vpon their emptie and vacant sides.

As for peare trees, apple trees and others of that bignes, if you plant onelie one rowe by the sides of your field hedges or elsewhere, it will be inough to allow twentie feete betwixt one and another: but and if you set two rowes vpon the hedge of your garden allies, then you must allow them some twentie fiue feete betwixt one and another euerie waie square, in such sort, as that as well the allie, as the space betwixt euerie two trees on either side may make a perfect square of fiue and twentie feete in euerie line, and if the distance allowed them be of lesse quantitie, then it must be somewhat answered and helped by not planting of them euerie one right ouer one against another, but as if you should wrap and lay them vp one within another to let the full and planted place of the one side stand ouer against the voide and emptie of the other. Some would that there should some small trees be planted amongst those great trees which you thus set about the allies for the times whiles they are in growth, but this would not doe well if either they should be suffered to continue there alwaies (because it would breake the rule and precept deliuered before touching such course) neither yet if they should be taken vp afterwardes: and the reason is because they draw away and eate vp the iuice and nourishment of the earth, which should wholie be imploied in growing and furthering of those which are intended for the inclosing and defending of the allies.

If you should goe about to plant a whole field or quarter of your garden with great fruit trees, such as are before named, you must then set them chekerwise, and allow them betwixt twentie and thirtie foote of distance the one from the other euerie way, that is to say, from tree to tree, and from row to row.

Plum trees.

Plum trees and other trees bearing stone fruit, and being of the like size of bignes will not admit vnder fourteene or fifteene feete distance

ſtance one from another in euery row: but and if you will onely plant two rowes, vpon the ſides of your garden allies, then they neede not aboue ſixe foote diſtance ſquare, but you muſt looke that this proportion or whatſoeuer other that you ſet downe to your ſelfe, doe iuſtly anſwere the proportion of the length of the place intended to be planted.

Sweet cherrie trees.

Sweete cherrie trees and bitter cherrie trees doe looke to haue allowance of diſtance betwixt ten and twelue foote, but and if they be to be planted vpon the ſides of the great alley of your garden, then it will ſuffice to allow them betwixt nine and ten.

Common or the leſſer ſort of cherrie trees.

The leſſer trees, as cherie trees, quince trees, fig trees, haſel nut trees, and ſuch like are ſufficiently allowed if they be ſet diſtant betwixt eight and nine foote in your greene graſſe plot or orchard, and betwixt fiue and ſix in alleies and garden rowes. When you would plant two rowes, either of them of ſeuerall kindes of trees, then ſet the leſſer on that ſide that the ſunne falleth firſt vpon, that ſo the ſhadow of the greater may not diſaduantage them.

The fiue and fortieth Chapter.

Other precepts about the planting of fruit trees.

IF you plant peare trees and plum trees one with an other, it will be better to ſet the plum trees towardes the ſun: for peare trees doe better indure the want and withholding of the ſame.

To remoone.

When you ſhall take vp a tree to plant it elſe where, take a great circle round about the foote, and raiſe together with the roote as much of the earth cleauing thereunto as you can, for beſides that thus the rootes doe not looſe their bed, they finde themſelues otherwiſe alſo infinitely better contented, when they carrie with them the earth alreadie reclaimed and familiar vnto them, then and if they ſhould be conſtrained in their new lodging to ſtoupe and conforme themſelues to the earth which they ſhould there finde. For as for watering of the rootes in pulling of them vp, to the raiſing vp of the more earth therewithall, it is as good as nothing, but rather doth much hurt, becauſe that this wet earth being within the new hole becommeth ſtiffe, and hard, which cannot but greatly offend the rootes of the tree remooued: for the verie remoue doth aſtoniſh and blur them ſo, as that it maketh the pointes of their rootes as it were blunt, and to haue their mouthes ſtopt, ſo as that they can neither draw vnto them, or elſe goe forward themſelues, ſo that if they finde not the earth of their new lodging ſo light and crumly, as that they may pearce it without ſtraining of themſelues, and conuey themſelues any way, either the tree continueth long without taking, or elſe it dieth right out. For the auoiding of which diſcommoditie, you muſt not either wet the new hole,

To water.

neither

neither yet the tree in remooving of it, nor ſo much as remooue it in a driſling time: and it is inough that the hole hath continued open before for the ſpace of fifteene or twentie daies, and hath drunke in of the dew and wet of the night. Of one thing you muſt take good heede, that you giue it his iuſt quarters of North, South, Eaſt, and Weſt, as it had before, and that if you take it vp from a plaine ground, that then you beſtow it in a plaine ground againe: and, if you remooue it from a hilly place into the like, or otherwiſe into a plaine, then you muſt looke that the ſeate wherein you ſet it in, be defended in like manner from the windes, both below and on high, as it was in his firſt.

Trees brouſed with cattell.

You muſt not plant the trees that haue beene brouſed by cattell or haue had their endes broken off: for they grow not ſo well, except you thinke it good to cut off the ende of their tops and head, to ſee if that thereupon they will take and grow againe. You may plant trees alſo without rootes, if they haue great pithes, as the Fig tree, tame mulberie tree, haſell trees and other ſuch like.

To plant trees without roots.

Pits.

And as for the pits wherein you meane to plant trees, you muſt make them ſix foote deepe in clayie places, but not ſo much in moiſt places: you muſt likewiſe make them roomethie and wide enough, for though the tree that you ſhall plant ſhould haue but ſmall rootes, yet you muſt make it wide, that ſo there may ſtore of good earth be caſt in round about the roote. And if the bottome of the earth where you make the pits be too ſoft, then helpe it by putting to it ſome drie earth, or elſe ſtay till it harden and breath out his moiſture: On the contrarie if it be too drie or hard and hornie, dung it and moiſten it with water, letting it drinke in of the ſame well and ſufficiently, not that you ſhould make it like a poole, but ſprinkled or bedewed with water therewith to coole it: againe it is meete that if your tree be old gathered, that they be watered and ſteeped at the foote two or three daies. If any of the rootes of your trees prooue too long or to haue their barke hurt, then you muſt cut them off biace, and let the ſide that is moſt vnfurniſht be vnder when the tree ſhall be planted: for there will ſmall rootes come foorth round about the cut.

Too moiſt an earth.

Too hard an earth.

The roots pilled.

Small trees.

It is a generall rule, that before the remooving of any manner of tree whatſoeuer, and eſpecially if it be a tree growne vp of kernels, if it be growne thicke, for to cut off the branches of it firſt, and to leaue nothing on it, except ſuch ſprigs as are not aboue a fingers length, or ſomewhat more or leſſe, according as the tree doth require, and this is it which ſome vtter in a prouerbe: That he that will plant his father muſt cut off his head: but as for ſmall trees which haue but ſome one ſmall wande or rod put out of them, there is no need that ſuch ſhould be cut vp on high, when they be remooued: the ſtockes of the nurcerie which you intend to graft, muſt be very well put foorth into branches before they be remooued: as we haue ſaid before.

A prouerbe.

To giue trees their fit places.

And when you shall set downe your trees in their pits, you must free their rootes from being intangled one with another as much as you can, and make them all to draw downward, not suffering any one of them to turne their ends vpward: and it is not needfull that they should be set so deepe into the earth, for it is inough that the roots be laide in so deepe, as that the earth may couer them halfe a foote or thereabout, if the place be not very schorching and stony: and you must not fill vp your pit, but leaue a hollow round about the tree with some open passage or conduit, that so the raine water staying there may be conueighed vnto the roots of the tree.

When your trees shall be spred in the pits, and the roots thereof orderly laid at large, weigh downe vpon them easily with your foote, and after mingle well manured earth with a part of that about the pit, and straw this vpon your roots, causing the smallest of it to fall downe amongst them; but lay not the grassie side of the earth towards them, for that might set them in too great a heat: you shall mingle the one earth well with the other, and so fill vp the whole pit. And if there be

To kill wormes.

any wormes in the earth that you shall put in, then you shall mingle some lee ashes therewith to kill them, because they might do hurt vnto the rootes. Afterward when your pit shall be filled within halfe a foot, or neere there about, you must tread downe the earth well vpon and in the places about the rootes, and it is farre better if it be drie in that place, then for to haue it wet.

The pricking downe of trees.

But and if you pricke downe or plant a tree of a prop, stake, or pole without rootes, with a wooden beetle or mallet, make not way for it into his hole with another stake, but let it make his owne hole for it selfe, not leauing it such a depth of earth to passe through, as that it cannot possiblie enter without spoiling his barke: but when you driue in the stake, tie it in such sort at the vpper end, as that it may not cleaue in driuing.

The sixe and fortieth Chapter.

Of pruning, lopping, vncouering and making cleane of trees.

THe slothfull and negligent hinde, saith that a tree must neuer be touched after it is planted, but a good husbandman saith, be still doing one good turne or another vnto the earth and the tree, & they will do the like to you againe. It were true indeed, that to say that we may not touch the tree, would haue some colour of reason, if it were to be vnderstood of the not remouing of it from his first seate, it being good and according to the nature of the tree: but to say that we should not touch it at all after it is once planted, would be either to proue negligent, or else to be willing not to receiue anie

fruite

fruite of his trees : for by how much you are the more diligent about it, and procure it the more good and pleasure, by so much the more increase will it repay you againe : and hee shall neuer haue good or much fruit, that shall not be diligent in cleansing of his trees in winter, and in the end of Autumne : for as concerning the taking away of superfluous and bad branches, and picking of them, it is most certaine, that a tree that busieth it selfe much, to growe woode, must haue his branches tamed about the beginning of December, by taking awaie of them so many as are superfluous, with the vnnecessarie woode, ouer tall and high boughes, and such as hinder it from making of manie buds to blossome and beare flower : In dooing whereof you may not touch the principall branches. Againe, you must free your trees of branches, and some part of the stocke also when it standeth behinde others that take away his sunne : that so after such disbranching and losse of some part of his stocke, it may set afresh vpon putting foorth of new, and that so couragiously, as that it may surmount and ouergrow those which before did ouertop it, and take away the sun from it, for the same reason, if the sun enter not in forciblie enough amidst the branches of a tree, but that some are still shadowed, it commeth to passe that those shadowed ones do not beare any fruite, and therefore there is cause that it shoulde be obserued and marked euer as it groweth, what branches there be that do ouershew and drown the other, and to take them out of the way when the leafe is fallen : you must likewise cut the boughes that looke downeward, or which grow crooked in the midst of the tree, as those which hinder the growth of it. This disbranching must be done in the decrease of the moone, when there is not either excessiue cold winde, or raine, and that with a good cutting toole : and not in any case when the tree is in his blossomes, because that so it might come to passe easily, that they shoulde drie away. Yoong grafts may not be too soone pickt and pruned, least they should become too frolicke and lusty, putting vp still in height, hauing but a feeble body to beare so great a head : and therefore they must be let grow strong about the foote before you do any thing vnto them.

To take branches from trees.

To make way for the sun to come to the trees.

It is likewise most certain, that the dead wood of a tree doth cause other branches for to die, and so by little and little the whole tree throughout: or else it keepeth the tree from growing and rising, which is the same that we call bourgening. Then it appeereth how necessarie it is to take away all dead wood, and it may be done either in summer or winter. This mischiefe haunteth old trees most, or else such yoong ones as the Sun hath come too fiercely against, in the place of their standing: or else by some inconuenience of lightning, thunder or tempest : or else of some venemous beast lurking at the foote of it, hauing bitten and wounded some fibrous part of the roote : or else by hauing

To take dead wood from the tree.

What is meant by bourgening.

Exceeding heat of the sun, hurtfull to trees.

had some of the branches tainted and wronged by the spade or picke-axe in the laying of it open at the foote, or multiplying of it by propagation. And if it be meete that that should be remedied that is aboue the earth; then that also which is vnder the earth, and with greater care and diligence: for the heat of the earth and dung doth ingender vermine at the foot of the tree which eat away the rootes: or else sometime dung cast about it doth minister such store of nourishment vnto it, as that thereupon it is forced to put foorth so great store of shootes and sciences, as that these doe make it to miscarrie, without hurting or taking any nourishment from any other of the trees: So that then heereby it appeareth that there is neede to digge trees at the foot in winter vnto the very quick of the earth, and take away from thence whatsoeuer may threaten any danger; and as for such number of sciences to see them planted other where, whether they be of plum trees, peare trees, apple trees or such other, and at the end of three yeeres to graft them. And heere it shall not be amisse to note that the sciences of hasell tree being remoued, bring foorth the better small nuts.

To order a tree in winter.

In like maner the tree must haue some recreation giuen it in winter, after his great trauell in bringing foorth of his fruit, and that in this sort: as by opening the earth and laying his rootes bare, that so you may clense them, and that the raine and the snow may fat them, which especially & principally hapneth in many places that are hot, dry, and lying very open vpon the Sun in his scorching heate: Furthermore if the barke of the tree begin to drie away, shewing signes of small store of nourishment within: that then you make fast vnto the foot of the same tree some dead dog or other carion for to reioice it withall, and some one or other scuttle full of good and small dung to lay about the foot of it: or on the contrary lee ashes, if so be that the ground be found too fat and full of wormes.

A dead dog or some other carrion made fast to the foote of the tree.

The mosse of trees.

The age of the tree will make it to grow full of mosse: and if it be yoong, then too much moisture will make it moslie, as also too much drinesse: this disease feedeth vpon a tree and maketh it leane, as the scabbe doth the beast. And we must not thinke that this can happen by reason of the mosse that is put about and aboue the wreath of the grafts. The remedie for this, is to lay it open at the rootes, as hath beene saide heeretofore: as also to make it cleane in Winter with a knife of woode or of bone, for feare that the mosse continuing in peace, winne the country and in fine deuour the whole tree.

The time to dig and cut off vnprofitable members from yoong trees.

He that will haue faire yoong trees, must dig about them euery moneth, and cut off vnprofitable and noysome parts euerie of those times, after March vnto October, and so long as vntill they be grown great: but when they are become great they must not be digd after

then

then thrise a yeere. In winter whether they be great or small the earth must be taken from their feete, that so it may be mingled with dung, and put into the pit againe, to the continuall retaining of necessarie moisture and comfortable influence of the heauens, as we haue saide before. And in sommer and when it is extreme hot, there must be kept and gathered a heape of coole earth, about the foote of the said tree, to helpe it to auoide the heat and drought of the said season.

The fit time to pick and prune trees.

It is best to disbranch and prune trees when the sap beginneth to rise vp into them, and when they thereupon beginne to bud and blossome in signe of approching sommer, and this time most commonly falleth out about March and Aprill. And in this businesse you must see that you cut the superfluous boughes off close by the stocke, and the sap thereupon will by and by runne out at the same cut, which thing cannot so happily succeed with them which cut trees in winter. And to preuent that the thicknes of the weightie and great branches, may not rent the barke from the tree in falling, cut it first halfe a foot from the earth, and after goe forward to saw off the residue verie close vnto the tree, and lastly put the sawed dust vpon the cut.

To cut downe branches from old trees.

If you disbranch and prune your trees in winter, leaue the stumps sufficient long to cut them afterward againe in March and Aprill: but and if you meane to lop and disbranch your great and olde trees to the ende they may grow yoong againe when you perceiue them to loose their lustie colour and to begin to looke yellow, then you must doe it shortly after the first of Nouember, as after that their leaues are fallen and before their sap put vp againe: and in cutting or sawing of these boughes, leaue their stumps with the stocke, that so yon may graft vpon them new sciences, some longer, some shorter, as the tree requireth, being sure in all your worke to take away the most offending branches, that so the remainder may receiue the more humour and substance.

An old tree fallen barren.

If the tree through age or otherwise become barren contrarie to his woonted custome: you must not cut off all his boughes, but those onely that are dead. Likewise you must vncouer his rootes after the beginning of Nouember is past, and cleaue the thickest of them, and put in the clefts some shiuers of hard stone, and there leaue them, to the ende the iuice of the earth may enter in that way: afterward at the ende of winter you shall couer their rootes againe with good earth.

Grafts broken.

When the grafts of three or fower yeere old are broken, brousèd or hurt of cattell; or when as you see that at such age they increase not neither grow greater, then you must cut them againe and graft them more low or more high then they were. And after you haue thus cut it you may take the vnthriuing grafts, cut off and graft them againe or some part of them in this new head, but somewhat deeper then it

was before in the former; and let it also be well and close made vp, euen from the first setting of it into the stocke: & when you haue thus grafted the stocke this second time, you must stil leaue remaining and not pul away the sciences which put forth of the plant so grafted, vntil you see whether the grafts doe put foorth new wood or no; for peraduenture you might kill the plant, which yet being reserued and kept aliue, you may graft againe the third time, if the second should die or miscarrie.

How to order grafts after they haue put forth new wood.

After the grafts haue put foorth new wood, of some two or three foote length, if they againe put foorth sciences more then neede, and those about the parts which you desire to cherish and to bring to large growth, then cut away those superfluous sciences, and that very close, euen in the yeere that the grafts were grafted, but let it be at such time as the sap is in the wood: likewise it will not be amisse to cut off some of the principall members of the shootes and grafts of the first yeere, if there be too much put foorth, and to ingraft them in some other place: and about fower or fiue yeeres after that they haue beene grafted, and therewithall the grafts well and close growen to the plants; yet once againe goe ouer your former worke, and take away after the same manner whatsoeuer you perceiue of idle remainder: for it is enough for one tree to haue one good member for to make his stocke or bodie of, and especially those which haue beene grafted small vpon a graft, and thus it prooueth a fairer and better tree in the end. But and if the tree were grafted after it had beene growne great, and that with many grafts, you may well afforde it larger allowance, according as you shall finde requisite and needfull, for the better couering againe of the clefts and cuts made in the plant.

To order and handle trees that are growne vp.

When your trees shall begin to grow, you must gouerne and guid them well for three or fower yeeres or more, namely vntill they become to a good shape and fashion, cutting their top on high and their small branches of superfluous wood, so long as till they come to the height of a man and more, if well it may be done, and dresse them well and set them in good order in their principall parts and members, and that in such manner as that one branch stand not too neere vnto another: neither yet that they may take hold one of another when they shall grow great: and some also must be cut away if that the tree should be too thicke of boughes within, that so the sunne may shew his force by hauing passage and enterance thereinto.

Trees giuing ouer to grow.

If it come to passe that trees being yet yoong do cease to grow in thicknes, you must cleaue the barke of the stocke in fower all along, or else in fiue places, according as the tree shall be of thicknes, and after that in a short time you shall perceiue it grow marueilously.

You must take from trees the drie leaues, which haue shut vp within

within them the nests and egs of caterpillers, and other such like little beasts, which are giuen to consume, waste, eate and spoile the leaues, tender parts, and fruit it selfe from off the tree: and besides do oftentimes cause to drie away, as also to die the whole tree, especially peare trees and apple trees, as being more subiect vnto this vermine, than the other sorts of fruit trees. And it is needfull furthermore to rid the stockes of all galles and breaches which the wormes or pismires haue made there, because that vpon these occasions might follow their death and ruine. *To take away the caterpillers nests.*

Trees may be cut from the first of Nouember vnto the ende of March: and you are to giue order that there may no gashes be made of great depth: and if you cut off the sciences or shootes of the tree which bringeth foorth no fruite, and that it be in the decrease and last quarter of the Moone, it will cause it to become fruitefull. And when the tree which you haue grafted shall haue growen great, you may take away his sciences and leaue remaining your grafts alone. *The time to cut trees.*

For the matter of watering of trees, they must not be watered except in time of very great drought, and then not vpon their foote and stock but in compasse about them, and this againe must be moderately done, because trees desire to be moistened rather by amending of them with fat and well manured earth, then with water: also we see that the fruites which grow in places that are not watered, are ordinarilie more sauorie and keepe longer then those whose earth and soile is drencht with water, howsoeuer that sometime the drines thereof be such as that it doth hinder and keepe the fruit from comming to his perfect growth and accustomed greatnes. *To water trees.*

If that trees for some yeeres together doe beare more fruite then ordinary, insomuch as that it is as much or more in number then the leaues, you must in such case rid them of the third or halfe part: in as much as those behind will not onely grow fairer, but because also that the yeere after, it will bring foorth moe; then and if those should be let alone it would doe. *Much fruit vpon a tree.*

The seuen and fortieth Chapter.

Of the curing of fruite trees.

AS all things that draw their force and take their growth from the earth, haue some perceuerance of that which is good for them, as those thinges by meanes whereof they liue: so they haue certaine speciall and particular diseases growing vpon them by reason of thinges that are contrarie vnto them, as either old age, or want, or ouer great abundance of that which should nourish them. Wherefore it is no marueil if trees and euery one of them doe nowe and then suffer inconueniences, and such as if they be not quickely

helped and relieued, they will not faile to die.

Sliuen or shiuered trees.

All trees which through force of winde or otherwise shall be clouen, shiuered, or sliuen must be cured with mire, sheepes dung and swines dung.

Weedes about trees.

Weedes growing about trees, doe sucke the nourishment of the earth, and they must carefully be weeded out, and the rinde of the tree must be smoothed with a hedging bill, but not in ouerthwart manner.

The small and dwarfish tree.

When a treee groweth not in thicknes and is long in putting foorth of branches and in rising on high, after that you haue vncouered it at the foote, at such time as hath beene said before, you must cleaue asunder many of his rootes, but those not of the chiefe and principall, and put vnto them swines dung mixt with other earths, and sometime powre downe in the place the lees of strong wine, round about the roots: likewise if it be growne exceeding mossie, then you must cleanse it of the mosse, with a great woodden knife, taking heede that you hurt not the barke. And in Summer time when the earth is too wet, it will be good to dig the earth about the foot and rootes of those trees, which were not vncouered at the roots in winter, & to mixe therewith some thing to better the earth withall, whether it be dung or some good mould from some other place.

The barren tree.

You shall make the barren tree fruitfull, if you hang amongst the boughes a bag full of the seede of Roses, Mustard seede and the foote of a Weasell.

The file in trees.

The file is a disease in trees that fretteth their barks: wherefore you must cut away this infection very neat and cleane at the end of Winter with a very sharpe toole, and after put vpon the wound or cut the dung of oxen or swine and binde it to with old clothes, and keep them also very close and fast with oziers, that it being thus fastned, may continue a long time, euen whiles the plasters can be kept on and made cleane thereto.

Wormes in trees.

There are but a few trees but they are subiect vnto the wormes: and some more than others, as apple trees, peare trees, and all such as containe within them a sweet iuice: some others lesse, as the bay tree, and others which beare sowre and bitter fruites. Sometimes these wormes grow of the oldnesse of the tree, sometimes of hauing taken a blow. Therefore against such wormes as vse to breede in the barke of the tree, in the place where you shall see the barke swelled or houen, you must race it with a knife, and pearce it euen vnto the wood, that so the infecting humour may issue out and with some hooke or crooke you shall pull out the wormes and rottennes that is within, and that with as much speed as you can: after this put into and vpon the cut an emplaster of oxe dung or swines dung mingled and stamped with sage and some quicke lime, wrap it well and tie all fast, and

there

there let it remaine and abide so long as it can indure.

The lees of wine or groundes of oile, being cast vpon the roots of the trees that haue the iaundise, or else are otherwise any way sicke doth them great good. *The iaundise in trees.*

There breed in trees certaine small beastes almost like to weeuils, and they are somewhat blewish or blacke, and certaine of them haue long and sharpe pointed peakes or bils, these doe great harme to grafts and other yoong trees: for they cut off yoong sciences, which are yet but tender and put foorth not past the length of a finger: you must at the height of the day, when you shall see them there, lay your hand vpon them very softly without stirring the tree: for they let themselues fall downe when one goeth about to take them, bicause they cannot quickely betake themselues to flight, and if they let not themselues fall into your hand, then reach vp and take them vpon the sciences with your other hand. *Weenils.*

For Snailes and antes, lay ashes or saw dust of wood, or the meale of lupines at the foote of the trees, and when the raine hath fallen vpon it stir it vp againe and put also new vpon it: otherwise, set certaine small vessels full of water at the foote of your trees: or else powre lees of wine round about them. *Against snailes and ants.*

When a tree letteth fall his fruite, you must compasse his stock about with Iuorie as it were with a crowne, or else with a plate of lead, or, which is best, you must vncouer the rootes of the tree and pearce them, and put into the hole the wedge made of the wood of a ceruise tree. *The tree that looseth his fruit.*

To hinder the rust from hurting of your trees, you must smoke them with straw in the spring time and that round about. *Against rusting of trees.*

When a tree looseth his flower, or that the leaues doe fall from it, you must vncouer the roots and lay beane straw wet in water round about them. *The tree that looseth his flowers.*

The best is to looke to caterpillers in the time of winter before that the trees be leaued, and if you finde any remnant or remainder of them behinde, or their pallaces or round gathered bunches, take them away with your caterpiller crookes made for the purpose before they be hatched. Cut not the woode when you cannot come by them with your hand, or, as little as can be, and clense your trees well and throughly in euery place, that so there remaine not any egs, then looke vnderneath at the feete of your trees, and see that there be no yoong ones, which can spin, and haue betaken themselues thither, and setled themselues betwixt the sciences and the rootes. If there remaine any clewes or round bottomes of them in the spring, or that some blasting or small raine hath bred some yoong ones, then marke at the height of the day, their repaire, in which place you shall see them togither vpon heapes, whether it be vpon the armes of the tree *Against caterpillers.*

or

or vpon the branches, from which you must either with olde clothes, or else with some large and great leaues held in you hand beate them, and kill them euerie one, weighing hard vpon them with both your handes, and oftentimes haue recourse thither and spie if you haue not let some of them fall vnto the ground: but beware there spurt nothing from them in your face, and to the ende they may not breed any more, you shall tie and make fast the branches of the fallow about the foote: these branches will serue likewise to make this vermine fall downe starke dead. There breedeth likewise a little worme, which the inhabitantes of *Burdeaux* call Quayre betwixt the wood and the barke, which eateth trees in such sort as that it causeth them die. These you must kill with an iron wyer probing for them one euery side of the tree.

The ouer fruitfulnes of a tree.

When a tree beareth too much, it must after that it hath beene vncouered at the rootes, haue diuers of them (so they be not of the principall) clouen, and the water that is within them let out, if there be any at all in them, and this will be as good for them or better, then letting of blood is for a man: for by this medicine the life of the tree is renewed.

The disease of the barke of the tree.

The sickneſſe of the barke of the tree, commeth of the moisture of the place where the branch is planted, and likewise on the contrarie, trees become lame when they be planted in too drie a place. To keepe tame yoong trees in the kernell nurcerie, and to cause them to thriue the better, they must be couered a mans height with stubble or with straw, but the couering must be borne vp with poles laid long and crowewise.

Lame trees.

To hasten a tree his bringing foorth of fruit.

To hasten and helpe forward a tree in his bringing foorth of fruit, which is long before it beare any thing, you must make a hole with a wimble in the thickest branch of his roote, without boring of it through: and in the hole which you haue made put a staffe and stop it vp with wax: afterward couer the foote ouer againe and the tree will beare the yeere following.

The drynes of a tree.

As concerning trees that haue beene lately planted and begin to wither away, if you cause them to be digd and watered you shall much helpe them: and withall they must be kept from heat in prouiding some thing which may make them shadow, and against the cold they must be couered with straw.

To kill wormes that trouble trees.

Swines dung will kill wormes, as also mens vrine put in the hole where the wormes are; and quicke lime in like sort: but and if the barke be hurt, then let it be clouen in many places, and likewise in the foote of the tree a little, in such sort as that the humour may run out.

The breeding of wormes.

The moisture oft times will cause wormes to breed in fruites that haue kernels: and therefore at such time, you must pearce the tree with a wimble, and that throughout if you doe well, and as neere the

roote

roote as is possible, to the end that the humours breeding the wormes may passe away.

If apples or any other such fruite fall from the tree, cleaue the roote, and put in the cleft a great stone or a wedge of wood. *The falling of apples from the tree.*

If fruits grow vpward, wash the foote of the tree with purcelane water or vineger; or powre about it lees of wine: or take two partes of oile oliue and one part of blacke pitch, mingle them together, afterward annoint them, or put ashes to the foot of the tree, or else some vessell full of water about it, or some hoope cut and annointed with Petroleum: or a little corde drest ouer with swines blood, wherewith quicke siluer hath beene mixt. *Fruits rising vpward.*

To kill ants from about a tree, you must vncouer the earth about the tree, and put in place some chimney soote, and that a reasonable quantitie. Take also of the sawe dust of the oake, and lay good store of it at the foote of the tree, and the raine when it falleth will either cause them to depart, or else they will die: as for other accidents which may annoy and hurt trees, as haile, fogs, or mists, flies, frogs, and such other inconueniences, see in the second booke and the hundred and tenth chapter. *To kill ants.*

The eight and fortieth Chapter.

To keepe and preserue the fruits of trees, to be taken and eaten in their due time and season: and out of it.

ALl such skill as man is to haue resteth not alone in the well ordering of the fruite tree, and carefull maintaining of it: but he must know withall, the keeping & preseruing of the fruit, either to sell it when the time is good and fit, or else for the vse of his household and familie, especially in places where the most delicate and daintie fruites doe grow, as in the countrey of *Tourraine*, which for this and such other considerations, is called the garden of *France*: wherefore we will intreat briefely of the manner of keeping of fruites, and we will begin with the almond. *Tourraine the garden of France.*

Almonds are ripe when they begin to cast the husks. If you wash them in salt brine, you shall make them white and to indure long, but yet the more if you drie them also: if you see that it cannot cast his huske, lay it vpon some straw a certaine time, and shortly after it will cast it: to keepe it long lay it in a drie place where the South winde bloweth not. *Ripe almonds.*

Chesnuts will be good to keepe vnto the spring time, if you first dry them in the shadow, and after lay them in dry places vpon heapes, or in vessels couered with sand: or and if you mingle them amongst common nuts, for by this medlaie they will be robd of their excre- *Chesnuts.*

mentous

mentous humour. But chiefely to keepe them long, you must gather them when they are reasonable ripe, in the old of the moone, and lay them in sand in some coole place, or in some vessell well stopt. Some do spread them vpon hurdles, or burie them so in sande, as that one of them touch not another. Othersome set them in ranks in baskets or panniars full of straw. You may trie if they be sound, by casting them into cold water: for if they goe to the bottome then they are sound, but and if they swimme aboue the water, they are corrupted and naught.

Sound chesnuts.

Cherries.

Cherries will keepe long, if you gather them from off the tree before the sunne rise, and afterward lay them orderly in a vessell, hauing in the bottome of it a bed of sauorie: and that by laying a bed of sauorie, and a bed of cherries, and a bed of sauorie and a bed of cherries, and lastly a bed of sauorie, watering them with sweete vineger. In like manner they will last long if you order them after the saide manner, couering them with rose leaues in a barrell: they are likewise either dried in the sunne, or stewed in their owne iuice, and preserued with sugar to keepe a long time.

To keepe citrons.

If you annoint your citrons, gathered with the leaues vpon their boughes, with well tempered plaster, you may keepe them sounde a whole yeere: and if you hide them, and couer them with barly, they will not rot: or if you do but close them vp close in any vessell whatsoeuer, or else if you do but couer them with small straw.

To keepe the corneile berrie.

The corneill berrie (commonly so called) must be put in a bottle of glasse which hath a wide throate, and when they are in, the bottle must be filled vp with very good and liquid honie, or else with sugar in steed of honie: after this the iuice rising of this sugar wherein they are preserued, is a singular thing for the staying of the fluxe of the bellie, and the procuring of appetite.

For the staying of the fluxe of the belly.

To keepe quinces, dip them in the lees of wine, or which is better, make them vp in new earthen pots close shut, and put the same into vessels full of wine, or else dip them in the wine; and by this meanes the quinces will remaine fresh, and the wine a great deale more pleasant. Some keepe them in straw or barly, or the sawe dust of woode, or figge tree-leaues. Othersome couer them with leaues and lome made of potters claie, & afterward drie them in the sunne: and when they would vse them they breake the claie, and taking out the quinces finde them such as they put them in. Some put them all whole in hony. But note by the way, that you must not keepe quinces in a house where there is other fruite, for what by their sowernes, and what through their smell, they spoile and corrupt the other fruits which are their neighbours, or neere vnto them, yea the verie grapes which one would keepe.

The malignant qualitie of quinces.

To keepe greene figs.

Figs will be alwaies greene and new, if you put them in a pot ful of honie wel couered, in such sort as that they do not touch one another,

nor

nor yet the pot it selfe: or else if you put them in gourds euery one by it selfe, and hang the gourd in a shadowed place, where the fire or smoke cannot come: or if you put them in a glasse pot well stopt with waxe. Drie figs will not corrupt if you lay them vpon hurdles in an ouen, after the bread is drawne out, and after put them in a new earthen pot, that is not glased.

To keepe walnuts sound.

Walnuts will continue a long time sound, if they be couered with straw, or with their dry leaues, or shut vp in a coffer made of the wood of walnut tree: or if they be mingled amongst onions, whereunto they do this pleasure, as that they take from them the greatest part of their acrimonie, or sharpnes. Some say likewise that they wil be kept greene a whole yeere, if when they are gathered greene, they haue their coate taken from them and be dipt in honie: and thereupon also such hony becommeth singular for them which haue vlcers in their mouth or throate to make gargarismes of for the same.

To keepe pomegranates.

Pomegranats will keepe, if at such time as when they are ripe or almost ripe, you writh the little stalke by which they hang vpon the tree: or if presently assoone as they be gathered, they be couered all ouer with potters claie, tempered in water, and afterward set out to the sunne in sweete oile, in a broad mouthed pot couered and hung at the floore of some chamber in a close place where the frost cannot come: or else set in some caue vnder the earth: but see that they grow not mouldie there. In the meane time for the gathering of them, you must touch them softly with your hande, that so you may not crush them: they keepe very well also in sawe dust of oake woad, in salt water, or salt brine. Or else you must dip them all ouer in boiling water, pulling them out againe presently, afterward drying them vpon sand or small grauell, or in the sunne for the space of eight daies. Some hide them ouer head and eares in a heape of corne in the shadowe, vntill that their rinde be hardned.

To keepe apples.

Apples after they haue beene gathered in weather not rainie or cloudie, but faire, must be kept spred vpon their eies, not vpon their tailes, vpon a table couered with corne straw, in a colde place, but not in a caue (for in such a place they would loose their sauour) and where the windowes are turned toward the north, which likewise must in faire weather be set open: or vpon strawe, or in barlie, or in a pot done ouer with waxe within, and close couered: or in an earthen pot not pitched, but hauing a hole in the bottome, and yet close couered aloft, and so hung vp in a tree all winter, in which case the apples will continue such as they were put in. Some wrappe them euery one by themselues in figge leaues, and after couer them with lome of white potters clay, and with dry lome, and set them in the sunne. Some after they haue gathered and made choise of the soundest, heauiest, and fairest apples, not being yet altogither ripe, doe set a hogshead in the ground,

ground, round about which they set these fruites, and couer them afterwarde with a bed of strawe, laying againe another bed of apples thereupon, and couering the same as before, they continue thus vntill the vessell be full, which then they take out of the earth againe, and stop it euery where close, that so there may no aire get in thereat. The Normans lay them vpon heapes, minding to make their cider thereof: In the countrie of *Orleans* and *Touraine* they vse to dry them in ouens, for winter and spring time banquets.

To keepe medlars. Medlars are kept in small pitcht vessels, or put in pots amongst grapes.

To keepe oliues. Oliues are preserued in salt brine, or in a composition of honie, Vineger and salt: some adde thereunto penniroyall, mints, anise, and masticke tree leaues: others some the leaues of the bay-tree, and others the berries of the bay tree.

To keep peares. Peares will keepe a long time, if their tailes be pitched ouer and so hanged vp. Others put peares into a new earthen pot and powre into them cuted wine, or wine from the presse, or common wine as it is meete to be drunke, vntill the vessell be full. Others keepe peares couered with file dust, or with the saw dust of wood: some put them amongst the drie leaues of the walnut tree, or else in an earthen vessell which is scarce baked, and powre in thereinto wine able to be drunk, and the new prest liquor of grapes, and stopping vp the vessell well and close doe so keepe it. Some lay them in pits, in a place neere whereunto there passeth a running water. And some diuide into quarters the Eusebian, rhodine, and bell fashioned peares, and taking their kernels out of them, drie them in the sunne, that so they may haue them good in the spring time.

To keepe mulberries. Mulberries that are close stopt vp in a glasse vessell doe keepe verie long, so that therewithall they haue powred vpon them some of their owne iuice.

To keepe citrons and oranges. Citrons and oranges are kept in some caue vnder the earth separate one from another, or in salt brine made of veriuice, or veriuice without salt, or in manner of a preserue with salt, as the oliues are kept.

To keepe peaches. Peaches are kept in salt brine or in sweete vineger: or else their stones being taken away, they are dried in the sunne, after the maner of figs. Some do preserue them with honie.

To keepe cerwises. Cerwises are preserued in sweete wine: or else when they be gathered, the hardest are taken and set to soften in vessels of earth full or almost full, couered ouer afterward with plaister, and set in a pit a foot depth, in a drie place, and in the face of the sunne, and after couered with earth. You may likewise cut them in pieces in the midst, and afterward lay them in the sunne to drie.

To keepe damaske plums. Damaske plums shall be put in vessels, and cast vpon them new or sweete wine, stopping the vessels verie diligently and closely.

The

The nine and fortieth Chapter.

A briefe discourse of making of drinkes of the iuices of fruits.

IN such countries as the vine cannot beare fruit in because of the cold distemperature and churlish roughnes of the aire, and whereas notwithstanding there growe singular good fruites and in great abundance in recompence of the same (as in *Britaine, Normandie*, the countrey of *Mans, Chartraine* and *Touraine*) although there be the meanes to make wine of a certaine kinde of corne, called bier: yet by reason of the lesse cost and charges, as also by reason of the greater profit, they vse to make diuers sorts of drinks of fruits: and to giue them their seuerall and particular names from the seuerall and particular fruites whereof they are made. As for example, that which is made of apples, cyder or cyter, and so the Normans and other countries bordering thereupon doe call it, as hauing a smell or other excellent qualities resembling the citron. Perrie which is pressed out of the peares, and ceruise wine, quince wine, pomegranate wine, mulberrie wine, goosberrie wine, and sloe wine, which are made of the iuices of these fruits pressed out. And heere we are to obserue that all fruits are not fit to make wine of; but onely those which will not putrifie easily, and haue great quantitie of wine iuice within them, of which kinde these are whereof I haue now spoken. For of cherries there is not any wine to be pressed, because their iuice doth easily corrupt and putrifie very quickly: neither yet of almonds, common nuts, filberds, pine nuts, or other such fruits, for they yeeld an oylie and not a wine-like humour. But for as much as we are not determined to speake in this place of all these sorts of fruit drinks, but onely of them which are called cider, perrie, and carasie, which next vnto the iuice of the vine, are the most profitable and necessarie liquor for the life and health of man: we will set downe before hand a certaine summarie, and as it were a transition and plaine declaration of and vnto as well the making: as also of and vnto the qualities and vertues of the saide cyder, perrie, and carasie, and will referre the Reader vnto the Latine booke now long agoe looked for from *Mounsier Paulmie* Doctor of Physicke at *Paris*, therein to read and learne the intire and perfect knowledge of this so pleasant and delightsome a drinke. And to begin with our purposed matter, I intend not here to stand about the finding out of the first inuentour and deuisour of this drinke: onely I will say that as *Noe* carried away with the pleasant taste of the iuice, which he pressed out of the grape of the wilde vine planted by him, was the first inuentour of making and drinking of wine: so a certaine Norman hauing his taste woonderfully pleased with the delicate and daintie taste and

reliſh of the iuice of apples and peares, inuented the making of cyder and perrie : I ſay a certaine Norman, for this is in baſe *Normandie*, called the countrie of *Neuz*, where this drinke had firſt his beginning.

The Way in generall to make ſuch wines.

The way then to make theſe kinds of drinkes generally, is to gather the fruit not all out ripe, and after to let them ripen ſome certaine time in the open aire, or to drie in the ſunne, for the ſpending and waſting of their waterie humour, then to breake and cruſh them with milſtones or ſuch other heauie inſtruments, and laſtly to preſſe them out : but withall you muſt obſerue this ſpeciall qualitie in certaine apples, which the longer they are kept and the riper they be ; the better and greater ſtore of iuice they yeeld, though then indeed it be not ſo durable.

On the contrarie, wilde peares doe yeeld more liquor and of a better taſte, and withall of longer continuance, then doe the tame and garden ones. When the iuice is preſſed out from the fruit it muſt be put into caske for to boile therein a certaine time, and to be ordered after the manner of the ordering of the iuice of grapes, as we intende to declare more particularly.

How Cyder is made.

The drinkes made of fruites that are moſt commonly vſed, are cyder and perrie, which as they are preſſed out of diuers ſorts of apples and peares, ſo are they differing as well in taſte as in goodnes. For to make your cyder, you muſt ſee that your apples be not wilde ones but garden and tame ones, growen and bred in orchards carefully and diligently dreſſed, kept, husbanded and ordered all the yeere long, according to that care and diligence which we haue ſaid to be needfull before in ſpeaking of the orchard, and yet without hauing any great regard vnto the place where the orchards are planted and doe grow, as whether they be gardens, greene plots, arable ground, or other ſuch like places, alwaies prouided and foreſeene that the ground be good and well ſeaſoned. And aboue all things ſuch apples muſt haue a firme, ſolide, and faſt fleſh, accompanied with great ſtore of iuice, of a pleaſant ſmell and delightſome taſte, and of a beautifull colour : ſuch are theſe that followe, the heroet, ruddocke, maligar, rambur, fairewife, gaſtlet, clanget, great eye, greening, curtaine, groſegraft, rncke, long, ſower, and ſweete kennet, barbarian, rangeler, and adomill. The ſhortſtart, hony-meale, and garden globe, notwithſtanding that they be rare and ſingular apples, and of a more pleaſant ſmell & delightſome taſte then any other ſortes of apples, yet are they not fit to make any cider of, as well in reſpect of the tendernes and delicacie of their fleſh, as for the little and inſuffi-

What apples are fitteſt to make wine of.

cient

cient ſtore of iuice which they yeeld, not worthie the putting into the preſſe to make anie quantitie of cider of. And hereto you may put an other reaſon; namely, that theſe apples are not ſo plentifull, neither grow they in ſuch ſtore as others do, and therefore it is better to keep them to eate, or to imploy them in brothes or ſirup of king *Sabor* and *de ſuccis pomorum*, then about the making of any common drinke.

The time to gather apples.

The moſt common time to gather apples is about mid-September, after they haue beene partakers of ſommers heate, and receiued ſome ſmall raine and gentle windes from September: ſome being very ripe; others yet not altogether ripe; principally thoſe which haue a faſter and leſſe delicate fleſh: the greateſt part whereof (being kept ſometime) yeeldeth greater ſtore of iuice, and better concocted and digeſted by the worke and operation of their owne naturall heate. In the gathering of them there is neceſſarily to bee vſed cudgels and poles, except it bee that we lay our hands to them, which we haue a purpoſe to keepe: there muſt in this buſines alſo be choſen ſuch a day as is faire, drie, cleere, beautifull, and full of ſunne ſhine, for if they ſhould be moiſt with anie raine or dewe, they would rot in their garners.

Being gathered, they muſt not all of the ſodaine be taken in hand to be made into cyder, but they muſt be ſuffered to take a heate in heapes, (as the *Normans* call it) and bee kept ſome three weekes or a moneth, more or leſſe, according to their conſiſtence and kinde, ſeeing vnto it in the meane time (at their owne perill) that they rot not: as alſo they may be laide on great heapes in gardens, or vnder ſome roofe open to the aire when it freezeth not, or when it freezeth to couer them with ſtraw newly threſhed, or elſe with ſome mattreſſes or featherbeds to keepe them from the froſt. Some during the time of the froſt couer them with linnen clothes ſteeped in water and wrung out, and theſe being frozen once themſelues, doe keepe that the aire cannot paſſe vnto the apples to freeze them: the beſt of all is to prouide them warme garners, the floores being laide neither with plaiſter nor tiles, but with ſtrawe, hauing the windowes very cloſe, the dores firme and faſt ſhut, and all the creuiſes or chinkes perfectly ſtopt to reſiſt the entrance of the cold aire. And notwithſtanding all this, yet you muſt not tarrie and waite vntill they be throughly ripe, and almoſt vpon the rotting eſpecially: but you muſt take your time ſomewhat before that they be comed to this exact maturitie & height of ripenes, for elſe your cyder will not prooue durable, but withall will gather great quantitie of lees, and grow couered with much white mother ſwimming aloft: if they be frozen, then trouble not your ſelfe with going about to make cyder, for hauing loſt their naturall and accuſtomed ſmell and colour, they haue alſo loſt all their force and vertue, and ſo it is not poſſible to make any thing of them but a rawe,

weake, vnpleasant, wateriſh, vndurable, and ſoone ſowring licour. When as therefore the apples ſhall be well prepared, and come to a good ſcantling of ripenes, not ſuch a one as is exact, but rather of the firſt or ſecond degree of ripenes, and that they ſhall yeeld and breath out a very pleaſant and ſweete ſmell: then it ſhall bee high time for you to go in hand with making of your cyder. Which opportunitie if you foreſlow and ſtill ſtay longer for their further and exact ripening, they will wither and fall away, and the cyder that you ſhall preſſe out of them will become wateriſh, weake, and ſowre out of hand.

The manner of preſſing out the drinke made of appies.

There are diuers waies vſed in preſſing out this drink made of apples in the countrie of *Neuz*: ſome do ſtamp them, putting them in fats, & afterward fill them vp with great quantitie of water, letting them ferment, boile, and purge, ſo long as vntill the water haue got the force and ſtrength of the cyder. Others ſtampe them in a morter, and after powre them together with a great quantitie of water into ſome fat, not giuing them any time of concoction and purging: but theſe two waies are not ſo much woorth; this thirde is better then them both. Firſt, you muſt breake your apples in peeces, and after preſſe them out: the way to breake them in peeces, is to put them in a preſſer made round, and containing in compaſſe ſome ſeauen oreight fadome, the ſaid compaſſe and round beeing contriued after the manner of a trough of two foote broade and deepe at the leaſt, in theſe troughes ſhall be put & contained the ſaid apples for the better ſtaying and keeping of them in cloſe together. Within theſe troughes there ſhall turne about one or two great milſtones of ſtone, or of ſome hard, maſſie & weightie wood, faſhioned like a wheele, carried about with one oxe or horſe, or two, ſo as ſhall be ſufficient for power and ſtrength, as we haue ſaid in the making of oiles. When the apples ſhal be ſufficiently broken, you muſt gather into heapes the ſame, and caſt them into tubs for the purpoſe, and there let them worke for a time as wine doth, and when it hath wrought, then you muſt drawe out the iuice or liquor (call it as you will) which ſhall haue runne out of the ſubſtance without being preſt, and turne it vp into veſſels, whether they be pipes or hogſheds, olde, or altogether new, prouided that they haue not taken any ill taſte of any vnſauorie liquor: the beſt veſſell or caske of all other is that wherein there hath beene wine, and eſpecially white wine, for the ſauor of the wine doth make this iuice more acceptable, and more affected. The cyder that commeth voluntarily without being preſſed, is the beſt and ſweeteſt, though not alwaies ſtronger then that which hath abode the preſſe: that likewiſe is better and more excellent which is made without anie mixture of water: It is true indeed, that when apples haue a verie faſt and ſolide pulpe, and haue not ſo much moiſture, but withall ſome ſharpe reliſh, that then it will not be amiſſe to mingle ſome ſmall quantitie of water

with

with them to make them breake the better, as also after that they be broken by the force of the turning stone, euen whiles they are working in their fats, or before they be put into their fats a working, euen at their going to the presse, there may water be mixt with them, to preuent that the cyder bee not too ranke, neither yet too sowre or greenish. The grounds of the working fatte shall be laide vpon the presse interlaced with long strawe, to keepe the saide stamped apples steedie and staied, that they slip not to and fro when they are pressed, (the apples by reason of their roundnes: not being able to stay and abide vnder the dore and other boardes of the presser, except they be kept in vpon the sides with some thing) and that which shall run out vpon the pressing of them, shall be turned vp into caske, and put to the former: or else, which is better, turne it vp by it selfe, as is done by wine, without mingling of it with that which did run out vnpressed, the pressed being the stronger, though the vnpressed be the more pleasant and sweete. The drosse or grosse substance remaining after the pressing, shall be put againe into the fat and stamped, and sufficient quantitie of water powred in amongst, and it shall be let so rest, steepe, and boile togither for the space of fower and twentie houres: after which, there shall be made thereof spending cyder, or small drinke for the household. For the making of this household drinke it shall be after the rate of gathering of one vessell thereof from so much drosse as made fowre vessels of the best.

When the cyder is turned vp into caske, you must let it boile within the caske by the bung hole of the caske left open, and thereby to purge it selfe of all his froth, scum, and other impurities, after the manner of wine: and when it is thus well purged, you must bung it vp very close, and so leaue it to boile againe within his vessell: but you must see that at this time the vessell bee not toppe full, least in the boiling it breake the vessell. And indeed this kinde of cyder is a great deale more strong then that which boileth all his boiling with the bung of the vessell open, but somewhat more fuming, and not so pleasant as the other, and it must lie in some cellar for the winter time, but in some caue in the summer.

Cyder as concerning the taste, doth resemble and become like vnto wine, for at the first it is sweete, afterward being fined it is somewhat sharpe, and when it is altogither fined, it hath then a sharper relish, but yet altered from his former verdure, euen after the manner of wine, as being more pleasant when it is in fining, then when it is fined.

The Cyder is better to keepe then perrie, and there are Cyders found of two or three yeeres olde, as good in their place, as any wine that is made: it is true indeed that it is subiect vnto the same accidents that wine is, and it must be as heedily regarded in the pearcing

of it as if it were wine, not giuing it any aire in the drawing of it if it be possible, or if you giue it any at all, to giue it when the foset is halfe out, causing the aire to recoile before the fountaine be stopt vp & shut. So soone as the cyder vessell is emptie, you must looke that the lees be not let stand in it any long time, because that it would breed an infinite number of wormes, which would make it to haue an ill smell & stinke in such sort, as that it would neuer be good afterward to keepe any cyder. And thus much for the making and keeping of cyder. Now we will speake of the making of our choise of the apples.

To haue excellent Cyder you must make it of sweete Apples, and that but of one or two sorts, and both of them in his kinde very good, of a pleasant taste and sweete smell, and you must breake and stampe them euerie sort by it selfe, but put them togither vnder the presser. That which is made of sweete apples mixt amongst some sowre ones, is not altogither so excellent good, and yet in the heat of sommer to be preferred before the most excellent cyders, in that it is more clear, heateth lesse and quencheth thirst better. And of a certaintie experience hath taught it that the cyder made of sweete apples, hauing a soft and tender flesh, is more apt to sowre, if that there bee not some sowre ones mingled amongst them: because that such sweete apples haue but a weake heat and easily ouercome and wasted. But such sweet apples as haue a fast flesh, and thicke iuice, stand not in need of hauing any sowre apples mixt with them, to the helping of them to make good cyder. It is true that sweet apples yeelde lesse cyder then sowre ones, but yet in as much as the sweeet haue the lesse iuice and the thicker, therefore their cyder is the better, lasteth longer, nourisheth the body more, and is a longer time in fining: but on the contrarie those sweete apples which haue much iuice, doe make much cyder: but this cyder is not so good, nor making so good nourishment, notwithstanding it be sooner fined and ready for drinking. Sowrish apples doe yeelde much iuice, that is waterie, thinne and soone fined, but nourishing a very small.

The cyder that is all neate and of it selfe without any mixture of water doth fine and become cleare more slowly then that which is made with water: in like sort it retaineth his smell and taste a longer time, and all other the vertues and qualities of the apples whereof it was made: for water added but in small quantitie, after six monethes once past, or if somewhat longer, yet after one yeere it causeth the cyder to sowre: and then so much the sooner as there shall be the greater quantitie in the mixture, as in the household or ordinarie drinke. Wherefore such cyders as you would haue to last long, must be made without water, and vse rather to mixe your water with them when they are drawne out of the vessell to drinke, if then you finde them too strong for you: and this also is the same course taken with

wine,

wine, especiallie when such a sicknes hath seased vpon the party, as craueth a thin, weake and wateriſh drinke.

Cyders differ one from another especially in colour and sauour or reliſh. For as for their colour some represent the scarlet as it were like vnto claret wine, and such is that which is made of apples that are red within and without: such also will last long, and fine not vnder the colour of high clarets, and haue a taste resembling the same somewhat a far off, but afterward comming neere to the resembling of hippocras. Others are of the colour of muscadels and resembling the same also in reliſh. The greatest part of the rest draw neere to a yellow colour, and some of them cleare as the rocke water.

As concerning their reliſh & taste, all cyders if they be good should be sweet, or a little bitter or sowre, whether they be new or old. And it is as true that some of them haue no more reliſh then water. Some are of an euill taste and that either of themselues, or of the ground, or of the vessell, or of the straw, or of some other such strange cause. The sweete, as well the new as the olde and fined, are the best of all and nouriſh most. But it is true withall that the newe doe swell vp a man and cause obstructions: the fined cyders are good for such as haue weake lungs, or those which are subiect to the stone, or haue vlcers in the reines or bladder. Such as are bitter and hold out bitter, are naught: But such bitter cyder as after becommeth sweete is the best of all and lasteth long. Such as are greeniſh if they continue the same colour alwaies, are not of any valew: but if in time they change this greenenes into a manner of sweetenes, then they proone good and last long.

You may also make cyder of wilde apples, but such cyder although that it last longer then that which is made of tame and garden apples: yet is it not so pleasant nor profitable for the stomacke.

Good householders doe not looſe the droſſe of their preſſings, but as we haue said cast them into vessels, and with a sufficient quantitie of fountaine water, make cyder for the household: many make no account of it but cast it out to the dunghill, assuring themselues that it drieth and maketh barren the place where it commeth. In such places as where they haue not the benefite of milstones, preſſers and other implements for to make cyder, they stampe apples but not of al sortes, but onely wilde ones with a stamper, and afterward put them thus stamped into vessels with a sufficient quantitie of water, and this is called cyder-pinet.

Pinet.

As concerning the faculties and vertues of Cyder, they must be measured and iudged according to their taste, age, continuance and abilitie to last, and the manner of making of them. The taste is not to be tried onely by the sauour and reliſh of the apples wherof they were made, which were either sweete or sowre, or harsh, or of moe tastes

The vertues of cyder.

then one, or without any taſte at all: but likewiſe of the age thereof, in as much as cyder if it be kept, changeth his taſte, together with the time, and getteth another reliſh after that is fined diuers from that which it had, whiles it was in fining, or that it had when it began to fine, after the maner of new wine, which when it commeth to be old, purchaſeth and getteth diuers qualities togither with the time. Such cyder therefore as is ſweete, becauſe of his ſweetenes which commeth of temperate heate, heateth in a meane and indifferent manner, but cooleth leaſt of all, and againe it is the moſt nouriſhing of al cyders, & the moſt profitable to be vſed eſpecially of ſuch as haue cold and dry ſtomackes, and on the contrarie but ſmally profiting them which haue a hot ſtomacke, whether it be more or leſſe, or ſtomackes that are full of humiditie, very tender and queaſie, and ſubiect vnto cholericke vomits: ſo that in ſuch complexions as are hot and cholericke it is needfull as with wine, ſo with cyder to mixe water in a ſufficient quantitie; with ſweete cyder when they take it to drinke; eſpecially when ſuch perſons haue any ague withall, or and if it be the hot time of ſummer, foreſeene that he that ſhall then drinke it thus be not ſubiect to the paines of the belly or collicke; becauſe that ſweet cyder preſſed new from ſweete apples is windie by nature, as are alſo the ſweete apples themſelues: this is the cauſe why Phyſicions counſell and aduiſe that ſweete apples ſhould be roſted in the aſhes for them which ſhall eate them, that ſo their great moiſtnes and wateriſhnes, which are the originall fountaine of their windines, may be concocted by the meanes of the heate of the fire: vpon the ſame occaſion it falleth out that neither ſweete apples nor ſweete cyder can be good for them that are ſubiect to diſtillations and rheumes, becauſe of their windines, and for that likewiſe, that as the *Arabian* Phyſitions doe iudge, they breed great ſtore of windines in the muſcles and ſinewes, which cannot be diſcuſſed but with great paine and continuance of time. Amongſt the ſweete cyders the beſt and moſt holeſome are thoſe which are made of theſe apples, the heroet, ſweete kennet, curtaine and rangelet, becauſe theſe apples are very ſweete, of a golden colour, good ſmell and long laſting.

Sweet perry.

Sowre cyder.

Sowre cyder, whether it were made ſuch by reaſon of the ſowrenes of the apples, or become ſuch by reaſon of the ſpace of time, in as much as it is very watrie and ſomewhat earthie, as alſo very ſubtill and pearcing, and yet therewithall ſomewhat aſtringent and corroboratiue, becommeth ſingular good to coole a hot liuer and ſtomack, and to temper the heate of boiling and cholericke blood, to ſtay cholericke and aduſt vomiting, to aſſwage thirſt, to cut and make thin groſſe and ſlimie humours whether hot or colde, but chiefly the hot. Such drinke falleth out to be very good and conuenient and to ſerue well in place of wine for ſuch as haue any ague, for ſuch are ſubiect

to

to a hote liuer and hote blood, for such as are scabbed or itchie, for such as are rheumaticke, vpon occasion of hote humours, and it needeth not that it should be tempered with water. Of sowre cyders those are the most holesome which are made of sharpe sowre apples as of rundockes, ramburs and sowre kennets.

The cyder that is harsh and rough, in as much as it is verie cold and drie, is not good, but after a long time, as namely not before that it haue lost his harshnes, changing this his great coldnes and drines into a meane and middle coldnes accompanied with some moisture, drawing thereby neere vnto some kinde of sweetnes or tart and pleasant sharpnes, as we see it come to passe in fruits which yet whiles they are not ripe, haue a certaine kinde of harshnes in them, but comming to be ripe, change by little and little their harshnes into an eager tartnes, and after into a pleasant sweetnes: wherefore such cyders would not be drunke till of a long while after they be made, or if that great necessitie should compell, then to alay them with a sufficient quantitie of water: for otherwise they would but cause costiuenes, the strangurie, shortnes of breath, and an infinit number of obstructions: yea they would procure manifold crudities in the stomacke, guts, and principall veines; yea they would ouerthrow a weake stomacke, beget a grosse, cold, and flegmaticke blood in the liuer, send vp manie thicke vapours vnto the braine, which would offend the head, and hurt the sinewes and ioints: but it is as true, that they bring this commoditie with them, as to comfort the languishing stomacke, the queasie stomacke, and that which hath altogether lost his appetite, such as commonly betydeth women hauing newly conceiued, and strange appetites; for which this cyder is verie fit and conuenient: as also to stay excessiue vomiting, all sorts of fluxes of the belly, all distillations, also falling downe vpon the ioints: it quieteth the beating of the hart, and cutteth off faintings: it helpeth digestion drunke at the ende of meate, so that as we haue said it be alayed with a little water, to diminish and reforme the heauines and slownes to pearce and passe away which is in it, following the counsel of *Galen*, who teacheth three manner of waies to vse sowre and binding appels and peares without any preiudicing of the health: the first way being to boyle them in water that so they may get more moistnes and softnes: the second to set them in the breath and vapour of boyling water to moisten and ripen them: and the third being to cut them in the middest and to take away their core, and in place thereof to put honie or sugar, and then afterward to roast them amongst the hot ashes. These kindes of cyders are made principally of the apples called small ruddocke, of wilde appels not grafted nor husbanded, of apple bequet, rellet, and such other hauing their coates diuersly spotted.

Cider that is harsh and rough.

Cyders without all taste become such by reason of their great wate-

Cyders without anie taste.

wateriſhnes, and are eaſily corrupted, and that not onely in their veſſels; but alſo being drunken and vſed for drinke: and therefore there is no reckoning to be made of ſuch.

Cyders of mixt taſt.

As concerning Cyders hauing ſeuerall taſtes, as eager and ſweet, harſh and ſweet, or any ſuch other medlay: the eager ſweete are much better and more wholeſome then the harſh ſweete, becauſe they are not onely more pleaſant, but alſo more ſpeedily paſſing, pearcing, and cutting then the other; which by reaſon of their harſhnes ioyned with ſome ſweetnes and cauſing a thicknes and heauines in them, abide and ſtay long about the principall partes, where they may cauſe crudities and many obſtructions.

As for the age and laſting of cyders, ſuch as are newe made and continue as yet troubled, not beeing fined, are not wholeſome, and cannot be drunke without hurt vnto the ſtomacke, without headach, and an infinite companie of obſtructions and other accidents tedious to the health. For ſuch as are verie ſower and beginne apace to turne tart and eager, they are not leſſe hurtfull then the former, and therefore they muſt not be vſed but when they are well fined, and in their middle age, as we ſee it obſerued in wine.

As concerning the compounding of them, thoſe are the beſt, moſt holeſome and eaſieſt to bee digeſted, which are made of verie ripe apples, gathered in due time and not ouerlong kept, which are likewiſe made of one onely kinde of apples, or elſe of many kindes, but either agreeing in taſte, or elſe being of a diuers taſte; yet are ſuch as may be tempered together, and make a more pleaſant taſte, then if they were alone and ſeuerall; as for example, if one ſhould mingle amongſt ſweet apples, ſuch as were eager and ſharpe, ſuch a medlay would make a farre more pleaſant cyder and more profitable, then if either of the ſaid ſorts were alone. The cyder likewiſe that is made of apples onely is better then that which is made of apples and peares ſtampt and preſſed together: better in like maner and more wholeſome are thoſe which are made without water, then that which is made with water, ſeeing water maketh it to looſe his naturall taſte, maketh it ſowre and corrupt, and that it will not laſte or indure long: wherefore it is better not to mixe any water at all with it when you make any; but rather at the time of drinking of it to delay it, and powre in ſome water if neceſſitie require it, and according as there ſhall be any of the occaſions lately mentioned.

The worſt of the Cyders is that which is made of wild apples, ſtampt and caſt into a veſſell with fountaine water in ſufficient quantitie: and yet woorſe then this is that which is made of the droſſe remaining of the firſt preſſing: as that alſo which is onely caſt into a veſſell with ſufficient quantitie of water: wherefore ſeeing that cyders how pleaſant & excellent ſoeuer they be, affoord no ſuch nouriſhmēt vnto the

bodie

bodie as is verie profitable for them, as we will handle more at large hereafter: he that will be carefull of his health shall vse none but the best cyders. We will speake againe of the faculties of cyder in the sixth Booke, in the same place where we shall speake of the faculties of wine.

How perrie is made

Perrie is made of diuers sortes of peares: sometimes of rough, harsh, sowre, and wilde ones, neuer husbanded, planted, grafted, or otherwise hauing had anie labour or paines taken with them: such perrie will keepe long, euen three or fower yeares, and be better at the ende then at the beginning. Sometimes of garden, tender and delicate peares, such as are the Eusebian and the Marie peare, the roset, hasting, rimolt, mollart, greening, butter peare, the Iaques du four peare, the little conie peare, the perplexed peare, the alablaster peare, the two headed peare, the dew peare, and the wood of Hierusalem: and such perrie is pleasant for a certaine time, but after it is once come to be fiue monethes old it becommeth voide of all taste and dead: the best and most excellent perrie is made of little yellow waxe peares, and such as haue beene throughly dressed and husbanded, as the little muske peare, the two headed peare, the peare robart, the fine gold peare, bargamot, tahou, squire, and such other peares, which haue a fast and solide flesh and hard coat.

The amiot peare is commended aboue all the rest, whereof likewise is made the perrie, called waxen perrie, because it resembleth the colour of waxe, but which otherwise is called carisie, verie pleasant and delightsome, but notwithstanding indifferent hard, and not so easie to be corrupted as the later. Some doe also sometimes mingle diuers sorts of peares together to make perrie of. But of what sort of peares soeuer the perrie is made, the peare trees must be carefullie and diligently husbanded and ordered, according to our former deliuered precepts. In what ground soeuer that the peare trees growe, as whether it bee in orchard, garden, arable ground, or other such like, so that the saide ground be such and so well seasoned as is requisite to bring foorth peares in abundance, and such as be good peares must bee gathered to make perrie of, some before apples and some after with cudgels or poles. Some when they are ripe, as the amiot, the tahou and the squire, and to breake and grinde the same with a turning milstone so soone as they be gathered, in such manner as hath beene said of apples: othersome must be gathered before they be ripe, as the peares of Grosmeuill, and others which haue a hard flesh, rough cote, and are heauie, as those which by reason of their hardnes and heauines cannot ripen well vpon the tree. Such as these are not to be imploied to make perrie of till they haue laide to ripen and mellow, that so they may become the tendrer and softer to get the greater

ter quantitie of iuice out of them.

Whether they bee peares to be gathered earely or late, preſſed they muſt be, and the like implements and meanes vſed about them in making the perrie, that were vſed in the making of cyder, for after the ſame manner muſt you proceed, in ſometimes mingling water with it, when there is neede; as alſo in the manner of the vſing of it in the working, boiling, and purging of it, in the tunning of it vp into veſſels, in appointing it a place to be kept in, in the gouerning of it, and ſuch other neceſſarie care for the defending of it from all things that might hurt it, and that it is ſubiect vnto, euen in as great meaſure or rather greater then you vſed about cyder, eſpecially in reſpect of the colde and froſt which perrie cannot in anie ſort indure: inſomuch as that all winter long you muſt keepe the windowes of the cellar or caue vnder grounde where it lieth cloſe ſhut and well ſtopt with ſtrawe, or ſome ſuch other thing to driue away the cold: beſides, that perrie is not ſo good for keeping as cyder is, except it bee the cariſie, or that which is made of the peare Groſmeuill, or ſuch other peares as haue a harde fleſh and skin, the perrie whereof may be kept two yeeres vndrawn, and after they be perced or drawne of, ſixe weekes, foreſeene they be well ordered and gouerned. Perrie maketh as great, yea greater ſetling then cyder, whereof you muſt free the veſſell preſently after the perrie is drawne foorth, for otherwiſe there will breede an infinite number of wormes in the veſſell which will infect it. The good houſholders do make a ſort of perrie for the houſhold of the droſſe of the peares comming from preſſing, and that by caſting of them into ſome veſſell with ſufficient quantitie of fountaine water. Some others caſt away the ſaid droſſe as a thing altogether vnprofitable. In all other things perrie is to be ordered after the manner of cyder.

The vertues of perrie.

The faculties and qualities of perrie muſt be conſidered of and weighed in ſuch manner as we haue ſaide of cyder, that is by his taſte, age, and making. The taſte of the perry dependeth for the moſt part of the reliſh of the peares out of which it is preſſed, and thoſe are either ſweete or ſowre, or harſh, or of mixt taſts, or elſe altogether without taſte, according to which reliſhes you are to finde out the vertues and qualities of perrie, following ſuch forme and manner as we haue largely laid downe in the handling of cyder: it is true that to ſpeake particularly of the good qualities of perries, the moſt holeſome, profitable & of beſt iuice are thoſe which are made of the peares called the waxen peares, the ſame being preſſed out in the ſommer time, and foreſeene alſo that it be drunken ſo ſoone as it is fined: becauſe it is not to be kept, being a very delicate and tender iuice, and therefore apt to corrupt eaſilie and very ſoone. Next vnto this in goodneſſe is the perry made of peare Robert, and muſcadel peares, prouided that they be drunken alſo ſo ſoone as they be wel fined and their lees ſetled, but

then

then alſo they muſt be drunke with water, and but in a reaſonable and meane quantitie, for otherwiſe by the pearcing ſmell, and ſubtilnes thereof, it cauſeth great paine of the head oftentimes. The perrie called Cariſie, or made of the kerſey peare, though it be one of the beſt, and moſt excellent, and of thoſe which are laſt preſſed, is yet to be drunke after it is well fined in a mediocritie, and alaied with water to repreſſe the fuming ſmell of the ſame, which eaſily would take hold of the braine. There is no cauſe why you ſhould greatly eſteeme in reſpect of your health of the perries which are preſſed out of wilde peares, and all ſuch as are vnhusbanded, vntamed, of a ſharp taſte, fat, reddiſh; or of thoſe which are preſſed out of diuers ſorts of peares, not agreeing together either in taſte or otherwiſe, neither yet of ſuch as are made of apples and peares mingled and preſſed togither, as neither of that perrie which is newly put vp into the veſſels and not fined, or that which had water mixt with it when it was made, or that which is made of the peare called the wood-peare being ſtampt and put into veſſels with a ſufficient quantitie of water. To be ſhort, whatſoeuer we haue ſaid of cyder it may be applied vnto perrie for the moſt part: and yet notwithſtanding all this we are not to confeſſe the perrie to be anie whit inferiour vnto cyder: for although in ſome countries, as in *Britaine* and *Normandie*, they make ſpecial account of cyder, and do more eſteeme of it both for the taſte, laſting, aboundance, & profit thereof, then they doe of perrie, notwithſtanding if neceſſitie ſhould driue a man to conferre the one iuice with the other, comparing the ſweete cyders with the ſweete perries, the ſowre with the ſowre, the ſharpe with the ſharpe, and the mixt taſtes with the mixt taſtes, it would be eaſie to iudge that the perrie is more holſome and profitable for the ſtomake and whole bodie then the cyder: for beſide the aſtringent, binding, ſtrengthning, and corroboratiue vertue that it hath to benefite the ſtomacke withall, and that comming from his terreſtrious and earthie temperature, which all ſorts of peares do moſt conſiſt of; whether they be ſweete or ſowre, rough or otherwiſe reliſhed: there is yet further in the perrie a certaine ſecret and vnſpeakeable vertue for the ouercomming of poiſon, and principallie the venome ingendred in the ſtomacke by eating of muſhroomes, which indeed is the perries naturall qualitie, as left it of the peares from which it is preſſed. Againe we ſee by experience that the vſe of the peares is euerie where more commended then the vſe of the apples, and that for this cauſe there is more carefull heede and charge inioyned for the keeping of the peares, then of the apples, as thoſe which for that cauſe are woont to be preſerued in ſugar or honie: they are alſo dried in the ſanne, dried in the ouen, and made vp in compoſition to ſerue in time and place. It is true that cyder moiſtneth more then perrie: but in recompence of that the perrie doth relieue and

refreſh

refresh a man more, and in cooling of him comforteth withall, saue that it stirreth vp more oft the paine of the belly and the colicke then cyder doth, especially the sowre or harsh perrie, in such as are subiect vnto the colicke: and the cause is, for that it passeth not away so speedily by vrine through the belly, but staieth longer time in the stomacke, and about the principall parts, then cyder doth, as we haue declared in the treatise of the peare. For which cause it is better to drinke it at the end of meate then at the beginning, so that the partie haue not anie vomiting or fluxe of the belly, following the counsaile of *Dioscorides*, who saith, that peares eaten fasting bring harme and inconuenience.

Lo heere in my opinion what we are to iudge of the qualities of cyder and perrie, as well in particular, as in comparing of the one with the other.

It remaineth that we examine what kinde of drinke the perrie and cyder are, and whether there be any such excellent qualitie in them as may match them and make them equall with wine, that so famous and highly esteemed drinke, seeing that a Physition of our time could not content himselfe with matching of them togither, but went further, and preferd them before wine in euerie thing: but this might happen (possibly) by his being more affected towards his countrie, or by being caried away with a paradoxicall iudgement, then vpon anie sincere minde to finde out the truth of things. But for the deciding of this controuersie we haue thought good to set downe our iudgement thereof in our booke written in Latin, and intituled *De Salubri Dieta*; that so we may not in this place passe the limits of our farme and countrie house.

The making of Ceruise drinke.

Ceruises must be gathered halfe ripe, euen so soone as you spie any of them to fall from the tree: suffer not them to mellow and ripen except a very little, for when they be ripe they are not wooth a farthing to presse out to make drinke of: you must breake them lightly in the trough of the presser, let the iuice worke togither in the fat after it is prest, and when it hath wrought, turne it vp, and lay it in some cellar or caue, and keepe it long: for the ceruise drinke the longer it is kept, the better it is: you shall know his goodnes, by his hauing lost his sharpenes and vnpleasantnes, & turned the same into the taste of wine which is of a white colour: Or if you will not stay the full ripenes thereof, then delay it with sufficient quantitie of fountaine water when you will drinke it. This drinke though it be the first that was put in practise, as the patterne after which all other fruite drinkes haue beene made, and of which and not of any moe *Virgil* maketh mention in his Georgicks: notwithstanding it is so colde a friend to

the

the health, as that it is not to be much set by: It is very true that for want of other remedies in case of necessity the country man may serue himselfe with this wine, when he findeth himselfe heauilie oppressed with the fluxe of the belly, whether it be that which is called the bloudy fluxe: or any other kinde thereof.

Drinke made of Sloes.

The good housholders of the low Countries of Normandy, being such as will not loose any thing, and thereupon being more carefull to get goodes, than to keepe their health, so soone as Autumne is come cause to be gathered by their people, great quantitie of sloes, ripe or not ripe, they powre them into vessels with sufficient quantity of water, they stop vp the vessels without touching of them. Before a moneth be at an end this water thus infused doth represent the colour and taste of a sharpe vnpleasant and wilde wine, which notwithstanding serueth the thirstie laborers and hindes to quench their thirst in the great heate of burning agues: This drinke is called Piquette.

The fiftieth Chapter.

Of preseruing of fruits.

FOr to make Marmalade, prouide your quinces very ripe and yellow, make them cleane and the seedes taken out, boile them in fresh water in some skillet, so long as till they begin to open and burst (if you thinke it not better to cut them in quarters) afterward force them through some fearce or strainer that is very close and cleane, and so long as till nothing remaine but the grosse parts: to eight pound of pulpe thus passed and forced through, put three pound of fine powdred sugar, boiling them together at a little cole fire, mixe them well by stirring them diligently with a broad spatule of wood, and let that your boiling continue till they bee sufficientlie boiled: which is when you see that it leaueth altogither to cleane vnto or hang vpon the sides of the vessell, as being the very marke of the perfect and sufficient boiling: if you be disposed to put any spice in it, as cinnamom, cloues, nutmegs and ginger, you must do it in the end of the boiling of them, and then also sturre it well about with the spatule. After the same manner you may preserue or make Marmalade of peaches, peares and other fruits. *Marmalade.*

If you would make a laxatiue marmalade such as they vse at Lyons, looke into the 26. Chapter of this booke.

To make good and excellent gellie of quinces, cleanse your quinces that are very ripe and yellow, taking out of them their kernels *To make Gellie.*

then cut them in ſmall quarters without paring of them, for the skin doth increaſe the ſmell, whiles you are thus making of them cleane and cutting them in quarters caſt them preſently into a baſen ful of water: for if they be not caſt into water ſo ſoone as they be thus chopt in peeces, they will become blacke: boile them in a great quantitie of water, vntill ſuch time as they be almoſt become like pap meate: when they are ſufficiently boiled, ſtraine this water through a new linnen cloth that is good and thicke, and that euen all the decoction and ſo ſtrongly as poſſiblie you can. To this decoction thus ſtrained adde the fourth part of fine ſugar: cauſe all to boile vpon a reaſonable cole fire, ſo long as till in the end you perceiue it very neere perfectly boiled, then make a ſmall fire that ſo it may not burne to the ſides, for that would make the gelly to be of an euill colour: and you ſhall know when it is perfectly boiled, if you finde it cleauing like glue vnto the ladle, and therefore you muſt then put it in boxes.

To preſerue walnuts.

To preſerue walnuts: gather walnuts whiles they are ſmall, tender and greene with their rinde and all, and make many ſmall holes therein, and after lay them to ſteepe in water eleuen or twelue daies more ol leſſe, cleanſe them from the skin that lieth vpon the ſhell without ſhaling of them, and boile them in clarified ſugar a long time, ſtill putting vnto them more and more clarified ſugar, becauſe the long boiling will make great waſte: in the end put them into veſſels with cloues, ginger, and cinnamom, but leſſe of cloues then of any of the reſt, becauſe they would make them ouer bitter. Another way to preeruе them, is to take greene walnuts about the moneth of May or of Iune, before that their pilling become hard, pill them and let them ſteepe nine daies (more or leſſe according as you ſhall perceiue them to become tender) in pure water, which muſt be changed euery day three or foure times; boile them yet afterward to make them more tender: being boiled, drie them in the ſhadow of the ſunne, or wipe them drie with a linnen cloth, afterward pricke them with cinnamom and cloues: In the end ſet them a boiling in clarified ſugar, ſo long as till the ſugar be boilde vp to the conſiſtence of a ſirupe, afterward put them in tinne or earthen veſſels made for the purpoſe, together with the ſirupe wherein they were boiled. Others do them otherwiſe. They gather the walnut whiles it is greene, they pricke it vpon a ſpindle or ſome ſuch like inſtrument of wood, not of iron (for iron would make it more blacke) and let it ſteepe in water often changed, and then boile it till it be tender, being tender they caſt it by and by into very cleane cold water: being cooled they cleanſe it from a little skin which ſheweth it ſelfe aboue the ſhell, and drie it with a linnen cloth, and finally pricke it about with cloues and cinnamom, they put it thus in veſſels and couer it with ſirupe to keepe it in: if it happen that after ſome ſmall time the ſirupe become too thin, then they boile

it

it againe and put it againe into the veſſell : this is the way to keepe walnuts alwaies greene according to their naturall colour. In ſteede of ſugar or hony to make liquid preſerues, you may for neede vſe cute, ſuch as we will intreate of in the fift booke : which cute or boiled wine is of no leſſe ſweetnes and goodneſſe then hony or ſugar.

Cute wine to be vſed in ſteed of honie or ſugar.

To preſerue pils of cytrons or orenges: chuſe great pils of citrons or of oranges, or of Aſſyrion citrons cut in foure or ſix peeces : cleanſe them from their inward skin and pippens, ſteepe them in cleare water for the ſpace of nine daies, changing the water the fifth day, when the nine daies are paſt, put them againe in cleare water to ſteepe vntill they become ſweet, and haue loſt their bitternes and withall appeare cleere and tranſparent, which is the ſigne of their ſufficient watering : afterward boile them in a veſſell of braſſe that is cleane, or in a leaden veſſell ſo long as till they be tender ; when they haue caſt out all their wateriſhnes, put them to ſteepe in a Iulep made of one part of ſugar and three of water for the ſpace of foure and twentie houres, afterward make them to boile at a little fire ſo much as is ſufficient : take them out of the Iulep and put them in a glaſſe veſſell, and putting vpon them the Iulep of roſe water thicke inough of conſiſtence, that ſo it may afford them as it were a cruſt: you may if you will aromatize them with a little Amber and Muske.

Preſerues of Orang pilles.

To preſerue whole peaches, you muſt pill them and cleanſe them as carefully as may be, and after boile them whole or cut in quarters, in a ſufficient thin Iulep, not to boile them to the full but only to boile out their wateriſhnes wherewith they abound : and then after this in a better boiled Iulep, to boile them vp to the full, till they be become through tender and ſoft, and finally to put them vp into ſome earthen veſſell, and to couer them with the ſirupe wherein they haue boyled. For their longer keeping you may aromatize them with cinnamom or muske: This manner of preſeruing of whole peaches is generall for the preſeruing of all other groſſe fruites, as peares, quinces, apples, Abricots, ſmall peaches and timely peaches.

The preſerue of peaches.
Preſerued abricots.
Small peaches.
Peares.
Apples.
Timelie peaches.

To preſerue cherries, you muſt chooſe the faireſt ſower cherries that you can, ſtull ripe (for if they bee not full ripe in boiling them toward the ende, you ſhall finde nothing but skin and bone) cutting off their ſtarts at the halfe, and afterward boile them in their owne iuice with ſugar, in ſuch proportion, as that for euerie pound of cherries you haue halfe a pound of ſugar, taking away the ſcum ſtill as it ſhall riſe in boiling of them : when they ſhall be ſufficiently boiled, you muſt put them in glaſſe veſſels, and powre vpon them the ſirupe wherein they haue boiled : notwithſtanding if the ſirupe ſhould ſtill ſeeme wateriſh, boile it more perfectly. Otherwiſe and better ; put apart ſome quantitie of your ſaide ſower cherries which you ſhall preſſe to haue a ſufficient quantitie of iuice : in this iuice ſo ſoone as you haue preſſed

To preſerue cherries ceruiſes gooſeberries &c.

preſſed it out, melt your ſugar (& not in any other liquor) boile them together preſently, and in boiling ſcum them: when the iuice is well ſcummed, clarified, and become red, without taking it from the fire, or making it looſe his boiling, put the cherries thereinto to boile, as long as needeth, without any ſtirring of them, but looking well to the ſcumming of them with a ſpatule: ſtirre them not from off the fire till they be perfectly boiled, and that you ſhall diſcerne if you ſee the ſirupe dropt vpon a trencher to fall into drops that do not ſpread abroad, for then it is exactly boiled: and you muſt put vp your cherries into their glaſſe veſſels good and hot for to be kept. In this manner you ſhall preſerue plums, ceruiſes, gooſeberries, and ſuch other ſmall fruits.

Paſte of plums & other fruits. For to haue paſte of plums, firſt boile the plums with a little water, ſtirring them oftentimes, that they may not burne to, afterward ſtrain and force them through a ſearce, and weigh them, that ſo you may put thereto for euery pounde fower ounces of ſugar: ſet all vpon the fire to boile againe, and ſtirre them well, not giuing ouer vntill all the ſcumme be conſumed and ſpent: which done, make them readie as they are where you will, afterward lay them in the ſunne to dry three daies, and then ſhut them vp: and in caſe that they grow moiſt, or that there ſpring forth any water out of them, you muſt lay them in the ſunne againe. This patterne of making this paſte, may ſerue generally for the making of paſte of any other fruites, as peares, apples, cheries, & peaches, ſaue that you muſt haue reſpect vnto the quantitie of ſugar, which ſhall bee more or leſſe according to the more or leſſe moiſtnes of the fruits, which you are determined to make vp in paſte.

To keepe peaches and other fruites. To keepe peaches or other fruites: take peaches or other fruites which you would keepe, when it is faire weather and dry, and opening them in the middeſt, take out the ſtone: then lay them all one day to dry in the ſunne, or in an ouen after that the bread is drawne out: afterward take ſugar well boiled and purified, and annoint them ouer, and lay them againe the day following in the ſunne, and ſo annoint them ouer againe, and ſo oft as they ſhall dry, and vntill they haue gotten a ſufficient cruſt, and after keepe them at your pleaſure.

To keepe oliues. To make oliues readie againſt a day: take greene oliues and cut off a little from the one ſide, after lay them in water with lime, and good ſifted aſhes, (but take withall, that you muſt haue twiſe ſo many aſhes as lime, and let them ſteep in that ſort the ſpace of 24. houres) after you ſhall take them out and waſh them fower or fiue times in warme water: afterward you ſhall put them in a ſtone or glaſſe veſſell with ſalt water, and this you ſhall change euerie three monethes, and mingle amongſt them common time, wild thyme, aniſeed, or the ribs and boughes of fennell: and thus you may keepe them a long time.

To preſerue of oline. To preſerue olines: lay whit oliues to ſteepe ſixe daies in a veſſell of

of ſea water; and vpon them poure the iuice of grapes as it commeth from the preſſe, but fill not the veſſell too ful, to the end that the ſweet wine when it ſhall boile, doe not ſhed ouer: and when it hath boiled, you muſt ſtop the veſſell: ſome do put a handfull of ſalt in firſt, and after it the muſt of new wine, and laſt the oliues, and when the new wine hath boiled they ſtop vp the veſſell. Otherwiſe: dry them in the ſhadow in a place that is open for the winde to enter, then put them vp in an earthen veſſell filled with hony; mixing therewithall ſome ſpices.

The one and fiftieth Chapter.

The maner of making of oiles: that there are three ſorts of preparing of oiles, and how you muſt make oile oliue.

INtreating in the ſecond Booke of the oliue tree, wee promiſed a briefe diſcourſe of the making of oiles, a thing certainly very profitable for our countrie houſe, inaſmuch as oile is no leſſe profitable for mans life, nor of leſſe fruit and increaſe vnto a good husband then wine: then it ſhall not be from the matter, if (after we haue ſpoken largely of gardens and orchards, and ſpecially of the ordering of oliue trees, and other herbes and trees whereof oiles are prepared) wee briefly doe ſpecifie the waies of making of oiles.

And to ſay ſomething of oile in generall, oile may be made three waies: the firſt by expreſſion, which is moſt common, and the chiefeſt of the reſt: the ſecond by impreſſion; and the thirde by diſtillation or reſolution, after the manner of diſtilled waters: we will onely ſpeake of the two firſt in this place, reſeruing the third for the diſcourſe which we intend to make concerning diſtillations in this booke: although in very deede we haue not purpoſely reſolued to ſpeake exactly of the making of oiles, becauſe this belongeth not to the husbandman, or his hinde, but onely vnto a good apothecarie.

Oile by expreſſion.

The maner of making of oiles by expreſſion belongeth not onely to oliues, but alſo to many other fruites and ſeedes: as common nuts, almonds, nutmegs, linſeed, hempſeede, and ſuch other, whereof we will ſpeake heereafter. Notwithſtanding in aſmuch as the oliue doth yeelde more oile then any other fruite or ſeede, it hath deſerued the name of excellencie aboue all the reſt; for the fat and vnctuous liquors of other fruits and ſeedes, are not like to haue any other name beſtowed vpon them, then that which of right appertaineth vnto the liquor which is preſſed out of the oliue: for which reaſon when we ſpeak of the oile of the oliue, we onely ſay, oile: but when we make mention of other oiles, we adde the name of the fruite or ſeede whereout it was preſſed: as oile of nutmegs, oile of ſweete almonds, and ſo of the reſt. Wherefore we will begin to deſcribe the manner and faſhion of

Oile the proper name of the liquor of oliues.

making the oile of oliues.

What is necessary before the making of the oile.

When therefore you haue first gathered your oliues, and disposed of them in such manner as we haue spoken of in our second booke, intreating of the oliue tree; consider diligently if the place where the oile is to be pressed and made, be furnished of all necessarie thinges: that is to say, of fats or vessels to put your diuers sortes of oiles in: of scoopes of iron, to draw and emptie out the oiles: couers to couer the vessels: great and small spunges: pots to carrie out the oile in: bands and cordes of hempe and broome barkes, and of many other things which must be prepared and made readie before you come to the making of the oile, in like manner as is vsed before the gathering of grapes. The millstones, oile mils, and pressers must be cleane, as all the rest of the instruments seruing to make oile: you must likewise haue made sufficient prouision of woode to make good fires, thereby to chafe and heate the roome a good while before hande, where the oile shal be pressed, if peraduenture it be not warme inough by his naturall situation: for all oilie liquors doe dissolue and runne the more freely by the helpe of heate, as they doe keepe in and cease to depart through colde. And for this cause it were requisite that your presser stood vpon the light and cleerenes of the south sunne, that so you may stande the lesse in neede of fire and candle, when you go about the pressing out of your oile.

Millstones. Oile mils. Pressers.

The south sun necessarie for the oile presser.

All these things thus prepared, cause your seruants and workemen to cull out and cleanse your oliues, when they are cleane let them be carried foorthwith to the presse, vnder which they shall put them whole in new willow baskets (for the willow giueth great beautie vnto the oile) to the ende they may be pressed with as much leisure, and as softlie as may be. It is true that it would be good before they were put vnder the presse to haue them troden with feete, inasmuch as the oile troden with the feete is alwaies better, sweeter, cleerer, and more delightsome to eate in salades, than that which is pressed out: but seeing the treading of them is harder to doe than to presse them, the common making of oile is in the presse: wherefore before you put your oliues vnder the presse, it will not be amisse to breake their skin and flesh with turning millstones, and that but gently, to the end that the kernell which spoileth and corrupteth the taste of the oile be not stird; and afterwarde to soften and grinde them most strongly in the presse, putting in therto of salt foure pound to euery bushel of oliues, and after to presse the bones or stones of the oliues by themselues. He that shall empty the oile out of the vessell whereinto it runneth from the presse, shall make three sortes of oile, separating so many one from another: for it would be great losse to mingle the first pressing with the second, but yet more to mingle it with the third, because that that which runneth from the presse being yet scarce strained or moo-

The willow graceth the colour of the oile.

Three sorts of oile of oliue.

ued,

ued, is of a far better taste then the second, and is called virgins oyle, being verie beautifull and goodly and fit for to vse with meate: the second being fitter for ointments and such other like vses: and the third for to burne in lamps. And yet further it will bee verie good when the oyle shall be a little setled in his tubs, to powre it out of them into others: for the more that oyle is aired and stirred, so much the more cleare it is and without lees. *Virgins oile.*

The tunnes and vessels wherein the oyle is to be put, must be well dressed with pitch and gumme, made verie cleane (if they be olde) with warme lee and dried with a spung, receiuing the oyle not till thirtie daies after that it is made, that is to say, at the time when the lees are fallen to the bottome: in like manner the vessels and sackes of goates haire must be well mended for the receiuing of the oyle into them, according to the manner which we haue set downe in the first Booke, in the Chapter of the Goat-keeper. *Vessels for oile.*

The cellar where the vessels for oyle are to be set, shall be in some cold place; for as all liquors do dissolue and become more fluent by heate; so they keepe fast and close in, and stay their courses by the working of cold: and so oyle of it selfe is kept verie well in a cold and drie place, because heat and moisture are his vtter enemies. This is the cause why the oyle makers giue in charge aboue all things that there be no fire nor smoake made neere vnto the presses and cellars of oyle; because the taste of the oyle is spoilde by smoake and soote: so then it is meete if possibly it may be that the oyle cellars be situate towards the North, quite on the other side from the hot windes, as also that the oyle be put into glasse vessels or earthen pots, such as are the pots of *Beauuais*, especially the oyle that is made of greene oliues that are not ripe, and is called oyle *Omphacine*. *Oile-cellars.* *The Northsyde fittest for oile cellars to stand vpon.* *Oile omphacine.*

If in the time of winter oyle doth freeze together with his lees, you must put into it twise boyled salt, for it dissolueth & thaweth the oyle, and cleareth it from all manner of mischiefe that can happen vnto it: neither needeth you feare that it should be salt: for though you should put much salt into it, yet the oyle would take no taste of it. *Frosen oile.*

To keepe oyle from becomming ranke, melt waxe with oyle in equall quantitie, and therein mingle fried salt, then put it all in a vessel of oyle; and this same composition serueth also to mend it if it be alreadie ranke, anise cast into the vessell performeth the same. *To keepe oile from becomming ranke.*

If the oyle be troubled, purifie it at the funne or fire, or else cast into the vessell boyling water; prouided the vessell be not weake and in hazard of bursting. *Troubled oile.*

If the oyle be full of filthines, frie salt and cast it hot into the vessell; the pine not burned, or the lees of oyle dried and parched and cast into the vessell of oyle doth the like. *Filthie oile.*

If oyle haue got any stench or other euill smell: poune greene *Stinking oile.*

olines, and caſt them into the oyle without their ſtones: or elſe caſt in the crums of barley bread mingled with grained ſalt: or elſe infuſe in the oyle the flowers of melilot.

Putrified oile. If the oyle be corrupt and putrified, hang in the veſſel a handfull of the herbe coriander and caſt in beſides of the ſame diuers times, if you perceiue that the putrefaction is not taken away: or which is better, change the oyle his veſſell: you ſhall likewiſe amend this fault, if you take grapes, and after you haue taken out the kernels, ſtampe them, and make them into lumps to put into the veſſell, and ten daies after change the oyle his veſſell.

Cleere oile. Oyle will be verie cleare, if you ſtampe the barke and leaues of an oliue tree with ſalt, put it all in a little knot or nodule, and hang the ſame in the veſſell.

Sweet ſmelling oile. To make ſweete ſmelling oyle: take virgins oyle, which is that which firſt runneth downe from the preſſe without the weight of the preſſe forcing it: into it caſt of the fine powder of bay tree leaues, the rootes of aller and cypres, the rootes of corneflag, or ſome other ſweet ſmelling things, ſuch as you are diſpoſed, all being dried and made into fine powder, ſtirring the veſſell well: afterward put in ſalt finely powdred, and ſet out the veſſell in the ſunne for the ſpace of fifteene daies: or elſe ſet a veſſell well couered (for feare that the oile ſhould ſpend it ſelfe) in a caldron of boyling water, let it ſtaie therein the ſpace of three houres to boile at a little fire: after take it out and let it reſt ſome time, vntill you perceiue all to be incorporated togither, then ſtraine the oile and reſerue it in ſome veſſell well ſtopped for your vſe.

Good oile in the vpper part of the veſſell. Furthermore, you muſt know that as the bottome in honie, and the middeſt of wine, ſo the vppermoſt part of the oile is alwaies the beſt: the reaſon ſhall be deliuered in the treatiſe of wine in the ſixth Booke.

The vertues of oile. As concerning the properties of oile, it hath a ſingular vertue applied outwardly as is to be knowen by the anſwere of *Democritus*, who being asked of the meanes to liue long, and to preſerue ones bodie in good eſtate and plight, ſaid, If you arme your ſelfe without your bodie with oile, and within with honie. And this is the cauſe why *Hannibal* gaue in charge vnto his ſouldiers paſſing the mountaines, that they ſhould arme their bodies with oile to keepe them from the iniuries of the cold: in like manner the men of auncient time to make their bodies the more nimble and readie to all actions and motions, cauſed al their bodie ouer to be annointed with oile before they were to goe into the bathe: in like ſort alſo their wraſtlers and champions, before they entred the combate did annoint all their bodie ouer with oile, not onely that they might not be ſo eaſily taken hold of in wraſtling: but alſo to haue their whole bodie the more nimble and obedi-

ent,

ent, and their members the more luſtie and ſtrong.

As concerning within the bodie, oyle hath no leſſe vertue then without; for that if it be taken inwardly it ſofteneth the bellie, ſubdueth the malignity of venoms, and cauſeth vomiting ſpeedily: furthermore, if any venome or burning haue pitcht and ſetled it ſelfe vpon the skin, and begin there to exulcerate or worke his further miſchiefe; for the ſtaying of the fiercenes and malignitie thereof, there is nothing better, then to lay a little liniment of new oyle thereupon. *To looſen the bellie.*

Oyle powred vpon wine or any other liquor, keepeth it from ſpending it ſelfe: In like manner the vinteners wiſe enough to keepe white wine from waxing red, are woont to caſt vpon it a pinte of oyle oliue. *Aſpent wine.*

Oyle is altogether enemie to plants, eſpecially gourdes and cucumbers, which die preſently if a man place neere vnto them any veſſel of oyle; or if that he which dreſſeth them be oylie, as we haue ſaid in the ſecond Booke. *Oile an enemie to plantes.*

The lees or grounds of oyle are good to make a mortar with to lay the floores of corne garners, becauſe ſuch a morter chaſeth away miſe: lees alſo are good to keepe inſtruments and iron tooles from ruſting: oxen are helped to a good appetite, by hauing their fodder beſprinkled with oile lees: oile lees are good to annoint the bottoms of cheſts whereia clothes are to be laide, for they driue away mothes: they are good alſo to giue light vnto the family with ſome wood: to keepe ſheepe from being ſcabbed, if they be annointed with the lees of oyle, as alſo heale ſuch as are alreadie ſcabbed: to cauſe wood to burne and flame without any ſmoake. *The vertues of the lees of oile.*

The two and fiftieth Chapter.

How the oyles of other fruits and ſeedes are made by expreſſion.

THere are manie other ſeedes and fruites which doe yeeld an oylie liquor by expreſſion, and that after the manner of the oliue, that is to ſay, royall walnuts, filberds, nutmegs, almonds, both ſweet and bitter, the Indian nut, anacardies, peach kernels, the kernels of pine apples, abricots, cherries, plums, piſtaces, linſeed, rapeſeede, muſtard ſeed, hemp ſeed, the ſeede of poppie, henbane, burnet, citrons, oranges, apples, peares, cucumbers, gourdes, melons, citruls, and other ſuch like, whereof we will ſpeake particularly, to the ende that we may giue to know what courſe is to be taken, and what manner and order is to be kept in euerie particular. *Oiles made by expreſſion, of many things.*

The oile of ſweete almonds is thus prepared. Pill the almonds after that they haue ſteept ſome time in warme water: pound them in a morter of ſtone or marble with a wooden peſtle, and make them *The making of the oile of ſweet almonds.*

vp in lumps or little loaues, which you ſhall kneade and worke with your handes at the vapour of warme water a long time, if you like it not better to warme them vpon hote aſhes, or hote ſand for the ſpace of an howre, or in the ſun the ſpace of fiue howres: or elſe put them in a glaſſe veſſell which ſhall be warmed at the vapour of boiling water in a caldron: after put them in a haire cloth or hempen bag, for to preſſe in a preſſe that hath his planke hollow and bending downward: or betwixt preſſes whoſe plankes you haue heated: but heere in this you muſt note, that the almondes are not alwaies blanched before their oile be drawne, becauſe many times a mans leaſure will not ſerue him to doe it: though indeede it be the beſt way to pill or blanch them, that ſo the oile may come the more neat and pure: and to pill them rather with a knife then by the meanes of water either warme or cold, for feare that through the mixture of water, there be cauſed to come foorth great ſtore of wateriſh and vnpleaſent oile. After that the almonds haue beene thus preſſed, you may bake the droſſe vnder aſhes and vſe them in ſteede of bread: you muſt obſerue that ſuch manner of preparing of oile of ſweete almondes is onely to be vſed when ſuch oile is to be taken at the mouth, to ſtay and take away the throwes and gripes of women newly deliuered of child: or elſe to mitigate the paine of the collicke or of the reines, taking it in a drinke of two ounces of white wine, or with Aqua vitæ: And this oile is drawne oftentimes without fire or any other heate whatſoeuer: ſometimes the almondes are fried to giue them a light drying, and after the oile is preſſed out.

The droſſe of ſweete almonds.

Womens throws Paine of the collicke and kidneies.

Oile for to make liniments.

The oile of bitter almondes is made of almondes fried in a friyng pan, and ſtirred oftentimes that ſo they may not burne to, after which they are to be preſſed out ſo ſtrongly and long, as till they will yeeld no more: After this manner a man may preſſe out two other ſortes of oile out of ſweete almondes: one appropriated vnto liniments to be applied vnto the outward partes of the bodie that are pained: the other ſeruing for perfumers: which two are made of old ſweete Almondes ſound and whole, and verie oylie by reaſon of their age: they muſt be firſt fried in a friyng pan, & after preſſed with waight or preſſes being cloſe wrapped in a bag or haire cloth. The oiles of Piſtaces, common walnuts, filberts, Indian nuts, the kernels of pine Apples, cherries, ſeedes of gourdes, coucumbers, melons, *Pa'ma Chriſti*, the ſeede of hempe, lyne, pionie, henbane, wilde ſaffron, ſtaueſacre, and other fruites and oilie ſeedes are preſſed out after the ſame manner that the oiles of ſweete almondes: euermore looking to it that the expreſſion be not without the heating of the thing preſſed, either by chafing and warming it ſelfe at the fire, or elſe by heating the plankes betwixt, or the weightes vnder which they are to be preſſed.

Oile of ſweete almonds for perfumers.

Oile de bay.

Oile of Baies is thus prepared: Take ripe bay berries and new, pound

pound them and make them into maſſes or ſmall lumps: boile them a ſufficient long time in water in a caldron, ſtraine the decoction and let it coole, gather the fat that ſwimmeth aboue, and keepe it for oile: or elſe let all the water run out at ſome hole which ſhall be in the bottome of it, and the fat which ſtayeth behinde is the oile. Some doe not boile the maſſes of bay berries, but preſſe them from vnder a preſſe, and let the oile fall downe into a veſſell ſtanding vnderneath with water. Otherwiſe: mixe an equal portion of bay berries and oliues, pound them together and preſſe out the oile. The oile of baies is ſoueraine to put in clifters for the paines of the colicke, and to make ointments of for cold tumours, the palſie, ſhaking of quartaine agues, and cold affects of the ſinewes. After the ſame manner you may make the ſimple oile of mirtles, Iuniper berries, of the fruit of the maſticke tree, turpentine tree, and Iuie: which is alſo very ſingular for cold diſtillations, and benummed members. Sometime men take an equall portion of Iuniper and bay berries, and ſteepe them in wine, preſſing out the oile there of afterward. You may likewiſe boile bay berries in oile and preſſe them out after: or elſe without any other mixture or preparation, you may put ripe and greene bay berries in a bag, and by weight or preſſing draw out their oile.

Colicke.
Cold ſwellings.
Oile of mirtles, iuniper, maſtick tree, turpentine tree, and iuie berries.

Oile of nutmegs is thus made, lay nutmegs on heapes, bray them with a woodden ſtamper, afterward preſſe them out from betwixt the plankes heated: or elſe diuide them into little heaps and ſteepe them three daies in very good wine, after dry them in the ſhadow of the ſun two whole daies, then heate them reaſonably in a frying pan vpon the fire ſprinckling them with roſewater, and preſently preſſe them out. You muſt note that in this manner of drawing of oile, which is done by expreſſion, men are forced many times to ſprinckle the matter with water or wine, to draw out the oile both more eaſily and in greater quantitie: ſo we ſee it practiſed ſometimes in the expreſſion of ſweete almondes, that when they are too dry there is ſome ſmall quantitie of water put vnto them: but vnto other thinges ſome wine, as in oile de baies, nutmegs, Iuniper berries and ſuch like.

Oile of nutmegs.

The three and fiftith Chapter.

How to make Oiles by impreſſion.

OIles made by impreſſion are commonly compounded of oile Oliue, becauſe it is more temperate then others, eaſilier to be gotten and retaining more exactly the quantitie of ingredients whether hote or cold. It is true that very often in place of oile oliue ſome take the oile of ſweete almondes, filberds, cammomil, or ſuch other according as the occaſion of thinges require, as you may know and vnderſtand by particular deſcription of ſuch oiles.

Oile made by impreſſion.

Three things to be considered in making oiles by impression.

Whatsoeuer it is, there are three thinges to be considered in the making of oiles by impression: the heate, which is the efficient cause of the making of the oile: the qualitie of the ingredients, and the quantitie of them. As concerning the heate, whether it be of the fire or of the sun, or of other thinges which yeelde heate, it must be measured according to the qualities of tendernes or hardnes which shall be in the substances and matter: for flowers doe not craue so great a heate as fruits or rootes; whereupon it commeth to passe that for the composition of such oiles, men are oftentimes contented with the heate of the sun, or with the heate of boyling water: otherwise called *Maries* bath or the double vessell. And I for mine owne part am of this minde, that for the making of these oiles there ought not any cole fire to be vsed, nor yet any other kinde of fire, but rather the helpe of *Maries* bath. For as by the gentle and milde heate of *Maries* bath, all the partes of the ingredients are kept and the oile well prepared and digested: so by the heate of a violent and forcible fire, there followeth rather the exhalation or combustion of oilie thinges then any digestion. The preparing therefore of such oiles as haue neede of a greater heate then that of the sun, will be a greater deale the better, if you put the matter, out of which you draw the oile, in a glasse or tin vessel for to be infused in oile mingled with wine or water, or other conuenient licour, or without licour, according as the nature of the ingredients and the present thing requireth. After that this vessell borne vp with the small slips of broome or straw, hath infused three whole daies in *Maries* bath, that is to say in a caldron full of water somwhat boyling (or (which is better) the vessel not infused or standing in the water, but rather receiuing onely the vapour of the boiling water that is in the caldron,) those three daies being spent, you may presse out the things, which you shall haue infused, straining and forcing them through some strong strainer and thicke linnen: and afterward to put in other new ingredientes if it be needfull (that is to say) vntill the licours which you haue mingled with the oile, or the humiditie and moisture which may rise of the ingredients be consumed, and that the oile may seeme to haue gotten out all the strength and vertue of the ingredients, and then to straine and force them as before. This is the way that is to be taken for to prepare oiles well by impression. It is true that with lesse cost and a great deale sooner they may be prepared, in putting the matter into some great brasse pan vpon a cole fire, causing it to boile with a small fire vntill the licour put vnto the oile or the moisture of the ingredients be consumed: and after straining of them after the manner thath hath beene said before.

Oiles of flowers.

To make oiles by impression in Maries bath.

To know if the oile be made.

Furthermore it wil be discerned that the oile hath exactly drawne out the vertues of the ingredients, and that the licour mingled

mingled with the oile or moisture of the ingredients is consumed, if with a spatule or sticke of wood you cast some few drops of the said oile into the fire: for if they be al on a flame by and by, it is a signe that it is pure and neate, but & if it spatter, there is yet some watersh moisture remaining in it, furthermore as it is boyling in the caldron it will be spattering and casting vp bubbles, so long as there remaineth any of the liquor or moisture: but after that it is spent and boiled away, it will be quiet and peaceable: likewise a droppe of oile dropped vpon your hand, if there be any moisture in it of watersh nes, it will shewe it sufficiently, for it will swim and ride aloft vpon the same.

The qualitie of the ingredients. Cold. Cold oiles. Hot. Tender. Hard.

As concerning the qualitie of the ingredients, it consisteth principallie in this, that the ingredients are either hot or colde, or tender or tough and hard. If they bee cold, there is need that they should be often shifted and changed in the oile, for the better imprinting of their colde qualitie in the oile, for although that oile oliue be temperate, notwithstanding it inclineth more vnto heat and a firie nature then otherwise: so that it is requisite to change the ingredients often, and to put new in their places for that cause; yea, and in regarde thereof to wash the oile in some common water; as we will further declare in speaking of oile of roses: if the ingredients be hot, it is sufficient once onely to change them for the composition of hot oiles, and that by reason of the affinitie and agreement betwixt the oile and the hot thinges.

Hot oiles.

Of the tendernes or hardnes of the ingredients.

If the ingredients be hard, and not easily digested, and imparting their properties vnto the oile, they must be infused before they be boiled, and also there must be put vnto their decoction some liquor, as wine, or some conuenient iuice or other liquor, as wel to helpe their digestion as to keepe them from burning, or getting some loathsome smell: but and if they be tender, they craue sometimes a simple infusion in the heate of the sunne, or vpon a slow fire without any boiling: and this way fitteth flowers: sometime a light boiling without anie infusion, as many aromaticall things.

Oiles made of liuing things or their parts.

And as concerning the qualitie of the ingredients, you must obserue that oiles by impression are made, not onely of the parts of plants, but of liuing things, their parts and excrement, wherein there must not be any shifting, changing, or renewing: and besides these, there is no other thing to be obserued, except that if the beastes bee small, that then they be kild in the oile, as is vsed in oile of scorpions, serpents, frogs, and pismires: but & if they be great, they must be first killed, then bowelled, and lastly boiled in the oile, as is done in the oile of foxes.

The quantitie of the ingredients.

Touching the quantitie of the ingredients, by which the oiles made by impression are called simple or compound, you must haue regard to see that when the oile is compounde, that this order be followed:

that

that is, to take the ingredients of greateſt and hardeſt ſubſtance, and to infuſe them three daies: afterwarde thoſe of leſſe ſubſtance two daies: and thoſe which are the moſt tender, ſubtile, and aromaticall one daie, and one night: and then afterward to boile them in order, ſtrayning them but once, and reſeruing your gums to mixe and diſſolue with the ſaid ſtrained oile, according as it ſhall be requiſite, if ſo be that any gums do go into any ſuch oiles.

The fower and fiftith Chapter.

A deſcription of the oiles made by impreſſion.

Oile of roſes. OIle of roſes is thus prepared: Take of oile of newe olives, ſo much as you ſhall thinke needfull, that is to ſay ſufficiently to infuſe your roſes in: waſh it diligently, aſwell to coole it & make it more temperate, as alſo for to make it the more pure, if in caſe it ſhould be any whit ſalt or feculent, and thick of the lees. Such waſhing is made with an equall portion of water and oile, ſtirring them togither in a veſſell, vntill ſuch time as they be mingled and incorporated, and then ſo leauing them till they ſeparate themſelues one from another againe: which being come to paſſe, there ſhall be a hole made in the bottome of the veſſell where they are to let the water runne out: after there muſt other water be put in to beate with the oile as before, & this ſhall thus be gone ouer three or fowre times: but and if there be any haſte to be made in this waſhing of the oile, then the veſſell ſhalbe kept in ſome warme place, to the end that the oile and water may be the ſooner ſeuered: and you muſt note that the oile is not to be waſhed on this faſhion, except it be for cooling oiles, as oile of roſes, violets, & ſuch like: it is very true that there will be no need to waſhe any oile at all, if you haue the oile of greene olives called *omphacine*. This waſhing of oile being finiſhed, haue in readines a ſufficient quantitie of blown roſes, put them to infuſe in this waſhed oile, in a veſſell hauing a narrow mouth, like a pitcher or a glaſſe bottle, or ſome one of tinne, and filled vp within a quarter of the toppe, and afterwarde well cloſed and ſtopt: ſet them in this ſort in the ſunne or ſome warme place for the ſpace of ſeauen daies, boile them afterward in a double veſſell in boiling water, as we haue ſaid, or elſe boile them in a braſſe kettle vpon a ſmall fire without any flame for the ſpace of two or three houres: when the oile hath boild and waſted one part of the moiſture that was in it, it will be conuenient to ſtraine it through a ſtrong ſtrainer, and thicke linnen cloth, and after to put into it new roſes againe, doing as you did before, and that for three ſeuerall times: in the end after it hath beene ſtrained, ſome put into it as much water of the infuſion of other roſes, infuſed in water, as there is oile; then you ſhall ſet it in the ſunne for the ſpace of fortie daies, which infuſion may be ſeue-

red

red from the oile afterward as the water wherewith the oile was washed. Notwithstanding it may be sufficient to take the infusion of the roses in oile onely, without the putting of other water in the infusion. Some mingle now and then in the decoction of roses a little wine, or iuice of fresh roses to keepe the oile from burning, or that in boiling it should not get any loathsome smell. You must further note, that some prepare and make two sortes of oile of roses: one oile of ripe oliues, and roses all opened and spred, which are the better if they be red: the other oile is made of roses being yet in the bud, with the oile of greene and vnripe oliues: or if you haue not any of this oile *Omphacine*, you shall make it with common oile and veriuice boild togither, to the consumption of the iuice. This is more cooling, astringent, and repercussiue: the other more digestiue, discussiue and anodine or asswaging of paines.

Two sorts of oile of roses.

Some there are which sometimes make this oile of roses without oile of oliues, putting red, carnation, or muske roses to putrifie in a vessell set in dung for one whole moneth being close couered. And this kinde of oile is very fragrant and sweete.

A new kinde of making of oile of roses.

This manner of making of oiles may be followed in the compounding of oiles, either colde or temperate and simple, such as are the oile of violts, cammomill, melilote, yellow or red violets, of the leaues and flowers of dill, lillies, the yellow taken away, of corneflag flowers, of elder tree flowers, white mullein flowers, iesamine flower, popie flowers, or of the leaues & heads of poppie, of lettuse leaues, and white water lillie flowers, to the compounding of which oiles, you must note that for want of oile of greene oliues, you may take the oile of sweete almonds newly drawne, or of filberts, if it haue beene first washt.

Oile of cammomill, melilote. Yellow violets. Corne flag. Elder tree flowers. White mulleine flowers. Iasmin. Poppie, lettuses. Water lillie flowers.

Oile of quinces: take whole quinces with the rindes when they are very ripe, but cast away their kernels, then stampe them and infuse them in oile *omphacine* in the sunne fiue daies, or else in oile washed as we haue said before: afterward boile them with equall portion of the iuice of quinces in a doble vessell the space of fower houres: renew the flesh and iuice of quinces three or fowre times, the old being made away, set them in the sunne againe and boile them: afterwarde straine all, and keepe it in a vessell for your vse: you shall draw greater store of the iuice of your quinces, if you crush them well, and bruse them, rather then if you cut them in peeces.

Oile of quinces.

Oile of masticke: you must take oile of roses, or oile *Omphacine*, or of quinces, three pound, of god wine eight ounces, of masticke powdred and put vnto the rest toward the end (for it will not indure much boiling) three ounces: boile them all together to the consumption of the wine in stirring it oft, to the end that the masticke may be melted and mixt with the oile.

Oile of masticke.

Oile

Oile of elder tree.

Oile of the flowers of elder tree: fill a glasse bottle full of washed oile, or oile *omphacine*, put therein a sufficient quantitie of elder tree flowers, set the bottle in the hot sunne sixe daies, after that presse them out and put in others new; continue this all the time of sommer whiles the floures of elder tree are in force: this oile is singular to comfort the sinewes, asswage the paine of the ioints, and to clense the skin.

Oile of S. Iohns woort.

Oile of saint *Iohns* woort: infuse for three daies the crops of saint *Iohns* woort in very fragrant wine: after that boile all in a soft and gentle sort in *Maries* bath, and after this some small space straine them out lightly: infuse againe in the same wine as many daies and nights the like quantitie of the tops of saint *Iohns* woort, boile them and straine them as before: afterward put vnto the liquor of Venice turpentine three ounces, of old oile sixe ounces, of saffron a scruple, mixe them, and in the said *Maries* bath boile them vnto the consumption of the wine: you shall keepe that which remaineth in a glasse or lead vessell, for to vse as hot as you can applie it in maligne vlcers, especiallie those of the sinewes, and in the leane and cold parts, in the prickes of the sinewes, paine of the teeth, conuulsions, tumours, and distillations. Some do make this oile after the simplest and singlest sort, making onely the flowers of hypericum, which they infuse all the sommer in washt oile in a glasse vessel, and setting it in the hot sunne, keepe it.

Oile of rue.

Oile of Rue: Take the leaues of rue somewhat dried, (because they are subiect to a superfluous kinde of moisture) set them to infuse in oile a whole sommer: Or better, change and renue them euerie eight daies, straining and pressing them out at euerie change: Sommer being gone, boile them not, but straine, presse out and keepe them in a vessell: after this manner are made the oiles of the mirtle tree, wormewood, marierom, southernwood, thyme, cammomill and such like: vnto which there is sometimes added the like quantitie of iuice, or flowers or leaues mingled with oile: and so they are set in the Sun.

Oile of mirtle tree, wormewood, marierom, southernwood, thyme and aller.

Oile of spike.

Oile of spike. Take true spike, or for want of it, lauander, to the quantitie of three ounces, of marierom and baie tree leaues two ounces: of the roots of cypres, elicampaine and zyloaloë of each an ounce and a halfe: of nutmegs three ounces: infuse euerie thing by it selfe in an equall quantitie of wine and water: the infusion accomplished boile the whole together in a sufficient quantitie of oile in a double vessell, the space of foure or fiue houres: this done straine it all and keepe the oyle for your vse: that is to say for the colde ach of the stomacke, reynes, bellie, matrix and other parts.

Paine of the stomack, reines, bellie, and matrix.

Oile of foxes.

Oile of Foxes: Take a liue Fox, of a middle age, of a full bodie, well fed and fat, such as foxes be after vintage: kill him, bowell him and skin him, some take not out his bowels, but onely the excre-

ments

ments in his guts, becauſe his guts haue much greaſe about them: breake his bones ſmall, that ſo you may haue all their marrow: this done ſet him a boiling in ſalt brine, ſalt water, and ſea water, of each a pint and a halfe, of oile three pintes, of ſalt three ounces, in the end of the decoction, put thereto the leaues of ſage, roſemarie, dill, organie, marierom and Iuniper berries after that he ſhall be rotten ſodden, that is to ſaie, ſo as that his bones and fleſh doe part cleane aſunder: ſtraine all through a ſtrainer and keepe it in a veſſell to make liniments, for ach in the iointes, the ſciatica, diſeaſes of the ſinewes, and paines of the reynes and back. *Rheumes. Weaknes of ſinewes. Paines of the reines and back.*

Take earth wormes halfe a pound, waſh them throughly in white wine, then boile them in two pound of oile oliue, and a little red wine to the conſumption of the wine, ſtraine and preſſe it out all and keepe the oile: yet further it would be good to put into this oile, ſome other wormes & leaue them there ſo long as the oile laſteth. This oile is ſingular good to comfort the ſtiffe ſinewes, and for the ach of the ioints. *Oile of wormes. Stiffe ſinewes. Paines of the ioints.*

Oile of Serpents: Take whole ſerpents, put them in an earthen veſſell well leaded, fill the ſame with May butter, and couer the ſame with a couering the ioyntes being well luted, but notwithſtanding hauing a ſmall hole aboue: ſet the pot neere vnto the fire that it may boile halfe a day, to the end that all may be throughly boiled: then ſtraine it through a linnen cloth, afterward pound it well in a morter, and make an end of ſtraining that which ſhall be in the bottome of the linnen cloth: mixe together both theſe expreſſions, letting them coole, and reſeruing them in a glaſſe veſſell to ſerue your vſe for diſtillations or rheumes, and for palſies. Some take vipers and cutting off their heades and tailes (as is done in the making of Treacle) they boile them in oile, and vſe the oile for rebellious ring wormes and firſt buds of the leproſie. *Oile of ſerpents.*

The fiue and fiftieth Chapter.

A reuiew or ſurueie of Oiles made by diſtillation.

THE third manner of making of oiles hath beene ſaid to be by diſtillation or reſolution, of which we will ſpeake, after we haue ſpoken of the diſtilling of waters: but beſides that, there is an other manner of drawing of oile (though in certaine thinges it be done by expreſſion) which commeth verie neere vnto this third kinde of making oiles by diſtillation: and it is practiſed in egs, wheate, muſtardſeede, haye, barlie, tartar, brimſtone and others.

Oile of Egs: Take the yelkes of egges roſted hard in water, or which is better, vnder the hote aſhes, about thirtie, rub and chafe them a long time betwixt your hands, after frie them in a leaden pan, or in an earthen one well leaded at a ſoft fire, ſtir them and turne them oft *Oile of egs*

oft with a ladle of wood, vntill such time as they begin to be of a sad red, after presse them with the backe of the said ladle: or, which is better, put thē betwixt two presses, to force out their oile as is done with oile of Almondes: you shall haue great store of oile to run out; which is very good to take away the spots of the skin, to heale ringwormes, to cause haire to grow againe, to cure fistulous and maligne vlcers: asswage paines, take away the rowghnes of the skin, to cure the chaps of the lips, hands, feete and fundament: to take away the scarres left after burnings, and principally for the vlcers of the membranes of the braine. Some in the making of this oile doe not boile the egges hard, but frie them raw, and after by pressing them together in a bag betwixt two presses, or vnder a presser, they presse out the oile.

The oile of wheate. Oile of wheate: Presse wheate together betwixt two plates of iron reasonably glowing and fire red, or very hote, or betwixt a marble stone and a thicke hot plate of iron: receiue the oile into something which distilleth from it: or else take away from wheate his pill or rinde, and distill it after the manner of the Philosophers oile: this oile applied hote, taketh away the spots of the skin, healeth ringwormes, fistulaes and chops in the skin, and the scall or skurfe in little children: the oiles of barly, mustard seede and other oilie seedes are thus prepared and made.

Ringwormes. Fistulaes. Chaps in the skin.

Oile of haie. Oile of haye: Set on fire a quantitie of haye, after quench it againe by and by, then lay it vpon coles, and whiles it is smoothering and smoaking, spread it vpon a plate of iron, and there will gather vpon it an oile liquor, which is called oile of haye: and this is singular good for ringwormes, and Saint Anthonies fire, scabs and rowghnes of the skin.

Ring wormes. S Anthonis fire.

Oile of Tartar. Oile of tartar: Take tartar, that is to say the dryed lees of wine which sticketh vnto the seames or hollow places that are within the wine vessell, not that which is in the bottome, because it is verie dreggish and filthie, neither yet that which is aloft on the vpper part of the vessell, for that is too frothie and scummy, but that which cleaueth round about vnto the staues of the vessell wherein there hath beene verie good white wine, rather then red: make it into fine powder, and make it fall in a linnen cloth, infuse it in very good white vineger: or not infusing it, calcine it, and put it in a hypocras bag or in an oxes or swines bladder: afterward roast it vnder hot embers vntill it become white: you shall know if it be sufficiently burned, by the growing of it cleare, and a little burning of your tong if you touch it therewith. Notwithstanding you may blanch or whiten it, if (as some hold it for a great secret) you boile it a long time in water, scumming it often: powder it yet once againe, or (which is better) calcine it; then put it in the bottome of an hypocras bag, that is to say of a bag which hath a sharpe and narow bottome, and this you

shall

ſhall hang vp on high at ſome ſtaffe in a caue or other colde place for the ſpace of eight daies, vntill it be reſolued into oile : and if the oile doe not drop of it ſelfe, then graſpe it hard and preſſe it out, putting vnderneath ſome glaſſe viole, to receiue the licour that ſhal diſtill, which is not indeede properly an oile, but a very ſharpe water, or a reddiſh humour. This humour is good for all ſortes of itchinges, ringwormes, skurfes, ſcalles, and other ſuch diſeaſes of the skin : It maketh the face white, cleane and yoong : it taketh away wrinkles and ſpots, comming of a melancholike humour : It maketh the haire of a ſtraw colour : hindereth the falling of the haire, and cauſeth it being fallen to grow againe : it whiteneth copper and ſiluer : and taketh away the ſpots of linnens, if they be rubd with this oile hote.

Oile of brimſtone : hang in ſome high place with a wire, or doues taile of iron, a glaſſe veſſell in faſhion like a bell or baſen, coue- *Oile of brimſtone.*
red aboue with potters-earth of a cubite widenes, vnderneath which neere the length of a cubite you ſhall place an other veſſell of glaſſe being broad and very large, able to holde much, ſuch like as is the diſh or baſen vſually ſerued with eawers : in the middeſt whereof there ſhall be a little veſſell of earth in forme of a little pot which ſhall containe the brimſtone, which muſt be of that which is called quicke and virgins brimſtone, and not artificiall brimſtone : when you intend to make your oile of brimſtone to diſtill, you ſhall take a ſheete of iron of foure fingers thicknes and fire red : this you ſhall caſt into the ſmall pot with brimſtone, to make the ſaid brimſtone burne and flame : the ſmoke comming foorth of the godet will aſcend vp to the veſſell hanging aboue, wherein after a ſhort time it will be turned into oile, which oile will thence diſtill into the veſſell below. Gather this *Gangrenes.* *Fiſtulaes.* *Vlcers.* *Ringwormes.*
oile and reſerue it in a veſſell well ſtopt, for to vſe for the curing of gangrenes, fiſtulaes, vlcers of the mouth & ringwormes, if you do but touch them with this oile vpon the end of a feather. It is ſingular good againſt rebellious vlcers comming of the pocks: ſome giue it to drinke with balme water in the morning vnto ſuch as are but ſcarſe cured and recouered of the pockes, to the end it may driue out the diſeaſe. The oile of brimſtone may be made otherwiſe : boile brimſtone in aqua vitæ, vntill there begin an oilie ſubſtance to ſwim aloft : gather this liquor with a wollen or linnen cloth, or with a little ſpoone : you muſt ſometime renue your aqua vitæ, vntil you haue gathered oile enough : if preſently after bathing your ſelfe you annoint with this oile your bodie infected with quickſiluer, you ſhall expell and draw foorth the ſaid quickſiluer.

But concerning all theſe oiles, ſee more in our booke of ſecret remedies and medicines.

The

The seuen and fiftieth Chapter.

A description of certaine artificiall balmes.

IT is well and sufficiently knowne how that now the true and naturall balme is no where to be found, and that in place thereof the industrie and skill of man hath inuented oiles which approch and draw neere in vertues and faculties vnto the true balme: now therefore be it in like manner knowne that these oiles are made either by distillation or impression: and that we will speake onely of some certaine ones which are made by impression, ceasing to speake of those which are distilled for them which meddle in drawing out the quintessences of thinges, as you shall further perceiue by our Booke of secret remedies.

Balme of the maruellous apples.

Balme of the maruellous apples: take the maruellous apples either with or without kernels, but verie ripe, put them in a vessel full of common oile either olde or new, or of the oile of sweete almonds or linseed, and infuse them a long time in the sunne, or in Maries bath, or in horse dung that is verie hot, or in the earth in a vessell that is well couered ouer with sand, & let it remaine there one whole yeere, or else two, which is the better; you may likewise make this oile of the leaues and little cods without the fruite: some with the apples put togither with the oile of sweete almonds or linseed oile do ioine of liquid varnish one ounce for euerie pound of oile: such an oile is a singular balme for all wounds, inflammations of the breasts, and for the appeasing of outward paines and ach; for the bursting of yoong children; the vlcers of the matrix, and to procure conception, if after that the woman is come out of the bath made for the same purpose, shee annoint her secret parts therewith and drinke of the powder of the leaues with white wine: it is also singular good for the paine of the hemorrhoides being mingled with linseed oile, or the oile of sweet almonds. We haue spoken of the maruellous apples in the second Booke, where we haue declared how that the herbe whereupon they grow is called *Balsamina*, because it hath the vertue of balme. The oiles of the flowers of rosemarie, white mullein, Paules betonie, Nicotian, and ground iuie, being thus prepared as we haue spoken of before, haue like vertues with balme.

Balsamine. Oile of the flowers of rosemarie. White mulleine. Nicotian. Paules betonie and ground Iuie.

Another balme: take the fruit of the elme, the flowers of hypericum, and the buds of roses, put al togither in a glasse bottle with oile of oliues, stop vp the bottle close and leaue it in the sunne, vntill you see the same all of it in such manner consumed as though it were rotten: afterward straine it and keepe the oile for your vse.

A balme.

Another: take gumme elemie fower ounces, oile of wormes, oile of roses, and hypericon, of ech two ounces, of venice turpentine, two ounces;

ounces; mixe altogether and incorporate them vpon a coale fire, afterward keepe it in little bottles.

Another balme: take the flowres and seeds of hypericon foure handfuls, bruise them throughly, and set them in the sun the space of ten daies in a glasse bottle with fower pound of olde oile of oliues, afterward presse them out carefullie, and put againe as many moe flowers and seedes of hypericon into the bottle, set it in the sunne againe tenne whole daies: after presse it out all againe, and put thereunto as followeth, of oile of dill, and of venice turpentine, of each a pound and a halfe, of aqua vitæ halfe a pound, of mummia, wood of aloës, mastick, myrrhe, & iuie gum of each an ounce & a half, of the rosen of the pine tree three ounces, saffron halfe an ounce, cloues, nutmegs, cinnamom, of each three drams: mixe altogither and boile them three howers in Maries bath in a glasse bottle close stopped, that nothing may breath out. Then set the bottle in the sunne the space of ten daies, reseruing the oile afterward for paines of the eares, wounds, fistulaes, cankers, *Noli me tangere*, and to annoint the backe bone a little before the fit of the ague come, which beginneth of cold. *A balme.* *Paines of the eares.* *Cankers.*

Another balme: take the fruite of the elme, within which you shall finde a liquor like vnto oile, put it whole into a strong violl, which violl you shall stop very close and burie for the space of fifteene daies in horse dung that is very hot by reason of his being verie rotten, then set it in the sunne for a certaine time, and after gather the cleere part that shall swimme aboue, and this wilbe vnto you a singular balme. Otherwise: gather all the liquor that you finde in the fruite of elmes, put it in a strong violl, adding of the flowers of hypericon and common oile: stop vp the violl very close, and burie it in horse dung that is well rotted, leaue it therein a sufficient time, and afterward taking it out, you shall haue a singular balme. See further in our Booke of secret medicines concerning balmes. *A balme of elme flowers.*

A briefe discourse of the distilling of waters.

The eight and fiftieth Chapter.

Of the profit and commoditie of distillation.

NOtwithstanding that distillation bee the worke rather of a Philosopher or Alchymist (otherwise called an extracter of quintessences) then of a farmer or master of a countrie farme: notwithstanding the profit thereof is so great and the vse so laudable and necessarie, as that wee take not the chiefe Lord of our countrie house to be furnished with all such singular commodities as we desire, if he lacke the knowledge and practise of distillation; not that I would haue him to make it a matter to trouble himselfe much withall, and to be at much cost and charges therewith, as many (not well aduised)

In leasure to take the opportunitie of leasure to go about distilling.

men be now adaies : but onely that hee would take his time thereto at his best leasure and without any great expence ; or else to leaue the same to his wife or his farmers wife ; for in indeed such occupation is far better beseeming either of them than him ; for as much as the mistresse or darie woman hath the pettie affaires and businesses belonging to this our countrie farme and lying within the doores resigned and put ouer to her. Therefore let it not seeme strange in this point, if after our briefe intreatie of oiles, wee discourse somewhat briefly and according as a countrie thing requireth of the manner of distilling of waters and extracting of oily quintessences, out of such matter as our countrie farme shall affoord ; which wee would should serue for the vse of the farmers wife, as well to relieue her folke withal, as to succour her needy neighbours in the time of sicknes ; as wee see it to be the ordinary custome of great ladies, gentlewomen, and farmers wiues well and charitablie disposed, who distill waters and prepare ointments, and such other remedies to succour and relieue the poore.

The nine and fiftieth Chapter.

What distillation is, and how many sorts there be of distillation.

The inuenter or first finder out of distillation.

I Will not trouble my selfe here with setting downe the party which was the first inuenter of distillation; as namely, whether it were some Physician of late time, who hauing a desire to eat stewed peares, set them a stewing betwixt two dishes vpon the fire, and hauing afterward taken off the vpper dish, and finding the bottome thereof all set with pearly sweate, retaining the smell and sauour of the stewed peare it selfe, inuented thereupon certaine instruments to draw out from all sorts of herbs, cleere and bright airie waters : it is better that we set our selues to worke about the declaring of what distillation is, and what things they bee which may bee distilled.

Distillation.

Distillation or the manner of distilling, is an arte and meanes whereby is extracted the liquor or moisture of certaine things, by the vertue and force of fire or such like heat (as the things themselues doe require) no otherwise than as wee see herebelow, that by the force and power of the sunne, many vapours are lifted into the middle region of the aire, and there being turned into water fall downe in raine. True it is that the word, Distill, sometimes reacheth further, and is taken not onely for things that are distilled by the meanes of heate, but without heate also, as wee see it done in such things as are distilled after a strayning manner, that is to say, when the purer and thinner part of certaine waters or liquid iuices is separated and extracted from the more muddie and earthie part, by the meanes of a felt, or by

Distilling without heat.

by the meanes of a peece of cloth fashioned like a little tongue or border: or out of sand and small grauell: or out of earthen pots not yet baked: or out of vessels made of the wood of iuie: or out of glasse made of fearne. Sometimes likewise things are not onelie distilled without heate, but with cold: as namely, when the things which you would haue distilled are set in cold and moist places, as oile of tartar is woont to be made, as also oile of myrrhe, dragons bloud, otters, and other things. But howsoeuer, yet I would not haue the mistresse of our country house to busie her braine with all the sorts of distillation, but that she should content her selfe onely with that which is performed by heate. True it is that it is meete and requisite that she should know the diuersities of heate, to the end she may procure such a heate as will best fit such matter and thing as she is in hand withall, or to goe about: for some things craue the heate of a cleare fire, or of coale, or of the sunne, or of hot embers, or of small sand, or of the filings of iron, or of the drosse of oliues: others craue the heat of horse dung, or boiling water, or the vapour of boiling water, or of wine boiling in the fat, or of vnquencht lime, or of some barke or other putrified thing. And for this cause she shall marke and obserue fowre degrees of heate, the first whereof shall be called warme, like water when it is halfe hot, or the vapour of boiling water, and in this there is no feare of any hurt it can do. The second is a little hotter, but yet so, as that it may be wel endured without any annoyance or hurt, such as the heat of ashes or embers. The third is yet hotter then the second, and so, as that it may annoy and hurt one grieuously, if he should hold any part or member therein any long time, such is the heat of small sand. The fourth is so vehement, as that it cannot without great paine and very hardly be endured, and such is the heate of the scales of filings of iron. The first degree is fit to distill fine, subtile, and moist things, as flowers and cold simples, as endiue, lettuse, and such other: the second, for distilling of fine, subtile, and drie things, of that sort are all fragrant or smelling things, as pepper, cinnamom, ginger, cloues, and manie simples, as wormeword, sage, &c. The third, for to distill matter that is of thicke substance and full of iuice, of which sort are many rootes. The fourth is proper for the distilling of mettals and minerall things, as allom, arsnicke, &c. By this meanes it will come to passe that the mistresse of our country house shal not haue any thing brought to her, out of which she will not be able to draw the watrie humour, and to distil cleere and bright waters.

Distilling by a filter, sand, vnbaked earthpots vessels of iuie, glasse of fearne.

To distill by cold.

Diuers sorts of heat.

The sixtieth Chapter.

Of the fit and conuenient time to distill in: and of the faculties, vertues, and durableneſſe of distilled waters.

Distilling time. The knowledge of the ripenes of the matter to be distilled.

EVerie thing is to be distilled in the time wherein it is best disposed, and best fit, that is to say, rootes, herbes, flowers, and seeds when they are ripe: but liuing things, and the parts of them, when they are of middle age, as wee shal haue occasion to declare in his place. Now as concerning the ripenesse of roots, herbes, flowers, seeds, & fruits, we refer you to our second Booke, where we haue sufficiently at large laid open at what time euerie one of these things is to be gathered. But it is to be noted, that necessity sometimes compelleth vs to distill drie plants, and then it will be good to macerate and steepe them in some conuenient liquor or decoction, answerable vnto the vertue of the things, by that meanes in part to renue and bring againe their youthfulnesse, and to endow them with such moisture as they brought with them when they were first gathered from off the earth, as will further declare by and by.

The vertues of distilled waters

As concerning the vertues of distilled waters: it is most certaine, that such as are distilled in *Maries* bath, retaining the taste, smell, and other qualities of the matter whereof they are distilled, haue not onely equall vertues with the plants and matter whereof they are distilled, but become much more pleasant to the taste, and delightsome to the eie, then the iuices or decoctions of the said matter would be. It is true that the waters distilled through leaden, tinne, brazen, copper, or such other like mettallike alimbecke (as we shall by and by speake of,) doe lose the best and most subtile parts of the substance of their matter, by suffring the same to vanish away in and into the aire, and so they doe not proone of so great vertue as their plants. But howsoeuer it is distilled, waters are more pleasant vnto sicke persons, more ready for vse, better for medicines for the eies, to make epithemes of for the hart and liuer, to make painting colours of, to put into perfumes or other sweete things, as well for the vse of Physicke as for the delight and decking of the body, then the decoctions and iuices of plants, and for that cause there is reason they should bee distilled with greater heed and care.

The lasting of distilled waters.

It is true that waters distilled in *Maries* bath especially those which are distilled in the vapour of boiling water, are not of long continuance, and hardly will last aboue a yeere: likewise you must renue them euery yeere by distillation, circulation, or by distilling of them againe, putting them into the still with some new matter vpon the cake or drossie part, left vpon some former distillation, or else to distill them by a filtre, whereof we shall speake heereafter.

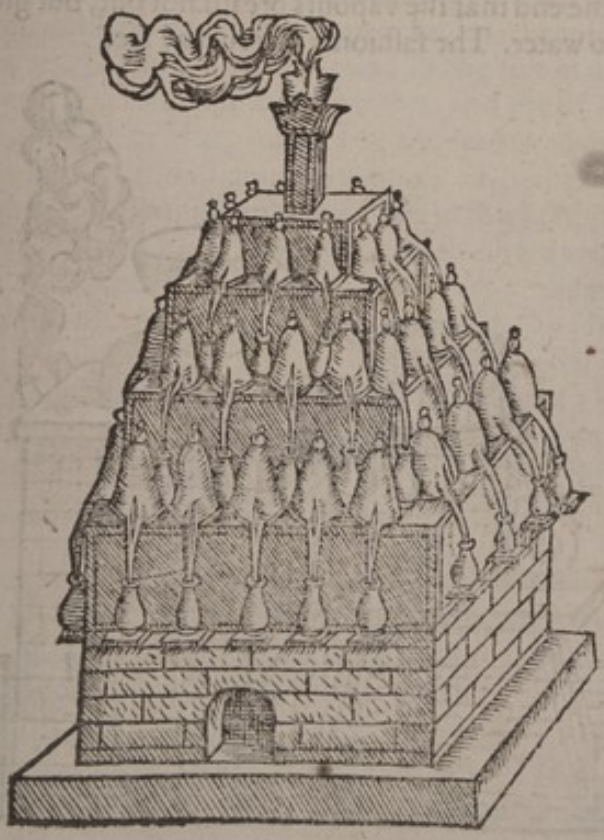
The one and sixtieth Chapter.

What manner of vessels and instruments they must be wherein waters are to be distilled.

To

TWo veſſels are needfull in diſtilling, which may be called by the common and generall worde, Alembecke: the one of them is properly called the containing veſſell, becauſe it receiueth and containeth the matter that you would diſtill, ſome call it the bodie or corpulent veſſell, or the gourd: the other is ordinarily called the cap, head, or bell, being that whereinto the vapours are gathered and turned into water. This veſſell hath ſomtimes a pipe, in ſhape like the bill of a birde, through which the water paſſeth drop by drop into a viole or other like veſſell: and ſometimes it hath no beake or ſpout, and thoſe are vſed in circulation. But theſe inſtruments doe differ much aſwell in forme and ſhape, as in matter: It is true, that the firſt that were inuented were of lead like to a bell, and did couer another veſſell of braſſe that was full of matter to be diſtilled: this faſhioned one is well inough knowne and vſed euery where, bicauſe it draweth out more ſtore of water then any other. Afterward there was another faſhion inuented, by which many veſſels (euery one hauing his leaden head or couer) are heated togither with one onely fire, ſet in a furnace made after the faſhion of a vault: to the end that with leſſe coſt and labour one might draw and diſtill a great quantitie of water: the figure and forme you may heere ſee and behold.

What diſtilling veſſels were firſt inuented.



But inasmuch as waters distilled in lead do not retaine their smell or taste at all, neither yet any of the rest of their qualities of the things whereof they are distilled; but doe rather smell of the smoake, or of a stinke of burning: as also, for that waters distild of sharpe, biting, and bitter plants, do no whit resemble the same in the taste of their bitternes and sharpenes, but rather become vnsauorie sweete: further in asmuch (as *Galen* witnesseth) as the water which runneth through pipes of lead doth stirre vp oftentimes the bloudie fluxe in those which drinke it, bicause of his nature, which is of the substance of mercurie: adde vnto these that inasmuch as we ordinarily see the waters distilled through lead to become oftentimes (with the sharpe and vehement vapour which it maketh by the reason of a certaine salt dissoluing it selfe from the head) spoild and made white and thicke as milke: I say, for and in respect of all these reasons, there is inuented another instrument called the bladder, whose vnder vessell and cap couering the same, are both of brasse, and both of them standing ouer one furnace: which instrument is not onely good to distil aqua vitæ in made of wine, or of the lees of wine or of beere: but also of all other sorts of plants powred in thereto, with a good quantitie of common water. Moreouer it is requisite that the head should haue a great beak or spout which must passe through the inner side of a great caske full of water, to the end that the vapours breath not out, but grow thicke and turne into water. The fashion is as you may see.

The

The later and better aduiſed Phyſicians haue deuiſed a faſhion much better then the former, which is to diſtil waters in Maries bath, that is to ſay, in the bath of ſome boiling water, or ouer the vapour of the ſame: for it is very certaine that ſuch waters are without all compariſon better, inaſmuch as they do exactly retaine not onely the ſmel but alſo the taſte and other qualities of their plants: which happeth, bicauſe the bath of the boiling water by his moiſture, retaineth, keepeth in, and preſerueth the more ſubtile parts of the plants, and by this meanes hinder and ſtaie them from reſoluing and breathing out, as it commeth to paſſe in thoſe which are diſtilled by a violent fire, of wood or coale, which is the onely cauſe that there is ſo great difference betwixt the waters diſtilled in an alembecke of lead and thoſe that are diſtilled in Maries bath, as is betwixt gold and lead: bicauſe they do not onely retaine the proper qualities of their plants, that is to ſay their ſmell and taſte; but likewiſe they become cleare, pure and bright, without ſmelling any thing of ſmoke or burning: on the contrarie the other alwaies taſte of ſome ſtinke of the ſmoke, which doth not onely prouoke a luſt to vomite, as well in ſuch as be healthfull, as in them that be ſicke, but alſo procureth great hurt vnto the parts of the breſt, ſtomack, liuer, and other inward parties, by reaſon of ſome ill qualitie, wherewith they are infected by the veſſels in which they are diſtilled. Which is eaſily perceiued by the water of wormwood diſtilled in a leaden alembecke, for it becommeth ſweete and not bitter, like vnto the plant: and in like ſort in all other manner of waters that are diſtilled of plantes, and are of a hot temperature, and ſharpe or bitter taſte. For the leaden alembecke receiuing vpon his ſuperficiall part the vapours of herbes which are hot in effect and operation, is eaſily corrupted in that his ſuperficiall part, and turned into a very ſubtile ceruſe, which afterward mingleth it ſelfe with the water, and beſtoweth vpon them an vnſauorie ſweetenes: which is eaſie to be gathered and knowne by the white reſidence that reſteth in ſuch waters, eſpecially if the alembecke wherein they are diſtilled be new: for the veſſell which hath ſerued a long time hauing gotten by long ſpace and being much diſtilled in, as it were a plaſterie cruſt or hardnes ouer all the parts of it, is not ſo eaſily altered by the vapours, nor turned into ceruſe. And indeed it is no maruell if the vpper face of the lead be changed into ceruſe by the ſharpe vapour of the plants, ſeeing that ceruſe it ſelfe (as *Dioſcorides* teſtifieth) is made of plates of lead hanged ouer the vapours of vineger & ſpred vpon hurdles made of reedes: but there befalleth no ſuch accident to waters diſtilled in Maries bath: for the bitternes of their taſte is manifeſtly perceiued, as alſo their ſharpnes, ſowrenes, tartnes, harſhnes, eagernes, ſweetenes, and taſtleſnes, if they be diſtilled of bitter or biting plants, or yet of any other taſtes and qualities: and this falleth

Waters diſtilled in Maries bath.

An old leaden alembecke is better then a new.

The making of ceruſe.

The cauſe that maketh waters diſtilled in Maries bath to retaine their vertues.

out so bicause the head of the Maries bath is of glasse, which cannot infect them with any strange or vnnaturall qualitie. Moreouer the waters that are distilled in the vessell called a bladder, which is made as we haue said of brasse, as wel the head as the body, but yet ouerlaid within with tinne, are much better and of greater vertue, then those which are distilled in an alembecke of lead: bicause the fire of the furnace cannot burne nor infect with any smoke the matter that is within, seeing they are couered ouer and boile in water: but notwithstanding they doe not throughly retaine the vertues thereof, bicause of the mixture of the water, which smothereth and dulleth their force and vertues. Wherefore we must needes commend as best the waters which are distilled in the double vessell or ouer the vapour of boiling water, especially when as therewithall they are of a hot facultie. It is true that amongst them, that sort is better which is distilled ouer the vapour of boiling water, then that which is distilled by putting the body containing the matter into the boiling water, bicause it extracteth and draweth out the subtill parts therein a great deale better: albeit that both the sorts thereof are excellent good, neither is there any hurt at all in them, saue onely that they are not of so long last and continuance: but to helpe this in such things as neede shall require, it will be good to distill one and the same thing often, that so you may haue them good.

Waters distilled in the instrument called the bladder.

The waters distilled ouer the vapour of boiling water.

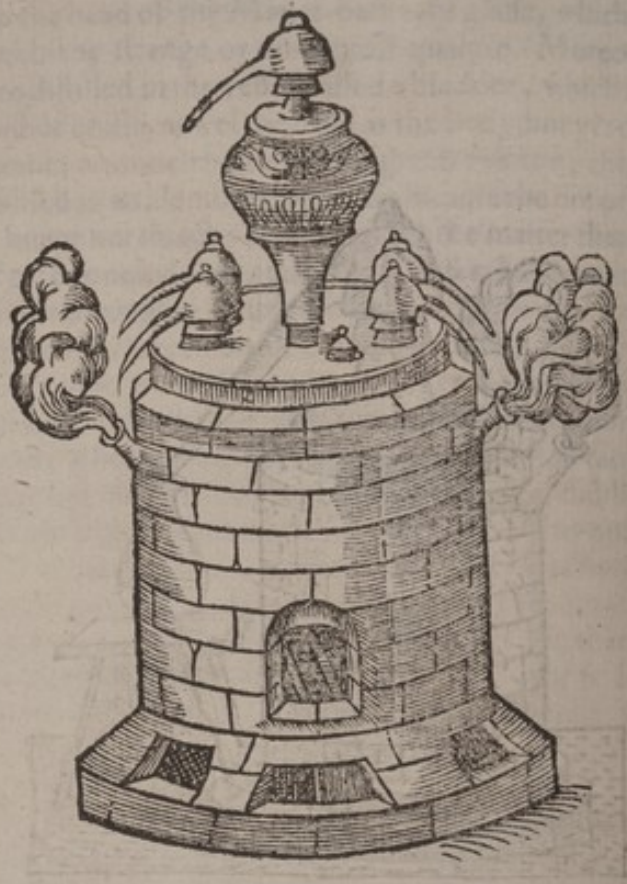
The durablenes of waters distilled in Maries bath.

But to come to our third kinde of instrument which we haue called the double vessell or Maries bath, it cõsisteth of two parts, the one is a great vessell of brasse made in manner of a biese pot, verie great and raised high, furnished with a couering, and it is set in a furnace and containeth in it boiling water: The other is the alembecke, whose body is likewise of brasse, so set within the couer of the caldron, as that the one resteth vpon the other, and that the one cannot be put in or taken away without the other: the head is of glasse or tinne, or of baked earth: in the couering there must be a hole and so as that it may be alwaies close shut, it would be at one of the corners, and the vse of it is, to powre boiling water into the caldron, when the water within is diminished after long time of boiling. The fashion of it is as you see.

There

There is another ſort of double veſſell which containeth fowre alembeckes, whoſe bodies ſet withim the bath may be either of glaſſe or tinne, and their heades of glaſſe: beſides theſe foure there is an other ſtanding higher then the reſt, and is heated onely of the vapour of boiling water which riſeth vp on high vnto it through a pipe, and this alembecke maketh a better water then the other foure. All theſe veſſels being well coupled and incorporated together, doe reſt vpon the caldron or great braſſe pot being ſufficient large and wide, and tinned ouer within, and ſo cloſely ſet one with another, as that there may not any vapour breath out, in like manner all theſe inſtruments and veſſels be ſo well ordered and contriued as that they may ſeeme to be but one body, ſaue onely that the heades of euery one muſt be ſo as that it may be ſeparated from the body and put to againe, when you haue any neede to diſtill water. The faſhion of it is ſuch as is heere to be ſeene.

There



There are ſome that haue yet ſeene an other ſort of double veſſel, and that a very excellent one: whoſe bodie is tinne, like vnto a great vrinall, of the length of three good feete, very wide and large below, and ſomewhat narrower aboue. The bottome or belly thereof is ſet two good feete in boiling water, and the top ſtandeth out of the water, a foote good, and that in a round hole made in the midſt of the couer of the caldron. Vpon the top of this bodie is placed a head of tinne, couered and compaſſed alſo with an other veſſell of tin likewiſe and much more large, this is to containe cold water, running into it through a bras pipe or cocke, it is to ſtand vpon the top of a ſhanke, and that for to coole the alembecke continually, that ſo the vapours riſing vp thither may thicken the better, and bee the ſooner turned into water. And bicauſe it is not poſſible, but that the water which is contained in the veſſell which compaſſeth the alembecke, ſhould become hot in ſucceſſion of time through the heat of the alembecke; this veſſell hath a ſmall pipe or ſpout, at which the water ſo heated is vſed to be let runne out, turning the little pin of the cocke: and it is fild againe preſently with cold water which is made to run downe into it from a veſſell on high; but to the end the labor

of

of emptying it ſo oft of his hot water and putting in againe of cold may be remedied, thinges may be ſo carried as that from the veſſell which ſtandeth vpon the top of the piller there may be colde water continually running into the veſſell compaſſing the alembecke, and then it being once become hot may be let out as is ſaid before. And to the end that the caldron which containeth the bath may alwaies keepe full at one meaſure and quantitie of water, which otherwiſe is ſure to diminiſh by the continuall and vehement heate of the fire of the furnace; there is at the foote of the piller an other veſſell full of very hot water which is to be conueighed into the bath by a cocke or pipe. And this water is heated in his veſſell by the ſame fire that the bath is heated, in as much as the wall of the piller is hollow and emptie euen as low as the bottome of this veſſell. This ſort of double veſſell is fit to diſtill waters withall in great ſtore and aboundance, by reaſon of the cold water which thickneth and turneth by and by the vapours into water. The ſhape and faſhion is as you ſee.

The Venetians diſtill their water in ſuch an inſtrument: the furnace is round and containeth on euery ſide round about it many

earthen

earthen veſſels, glaſed within and faſhioned like vrinals, well luted with mortar of potters claie, and euery one couered with a head of glaſſe or baked earth: to their ſnoutes there is faſtned a viole with a good thicke threed, to receiue the water that diſtilleth, this furnace is heated as we ſee, after the manner that the Germanes doe heate their hot houſes and we our ſtoues. And if it happen that the fire ſhould be too hot, you muſt not put any thing into the veſſels, till ſuch time as the heate be ſomewhat abated, for feare that the plants, flowers and ſuch other things ſhould be burnt: the mouth of the furnace muſt be alwaies ſtopt and faſt ſhut, to the end that the heate may beate inward for the heating of ſo many veſſels. For the attending and ordering of this furnace there are required many ſeruants, ſome of them to looke to the fire, others to caſt the herbes into the bodies, and others to put the heades vpon the bodies. By this likewiſe there may great ſtore of waters be diſtilled, as ſome hundred pintes in a night and a day, and theſe waters are a great deale better then thoſe which are diſtilled in leaden alembecke or ſtillitories or yet of other mettals, bicauſe they are not infected with any fault or infection, which is a common cõpanion of thoſe which are made of mettall. This is the ſhape & form of it.

There

There are other instruments, the bodies whereof are of brasse, iron, or other mettall, hauing a long thicke, and straite necke, on the top whereof resteth also a head of brasse, made after the fashion of a broch steeple, and is compassed round about as it were with a bucket of coole water, to the end that the vapour may be conuerted the sooner, and in greater quantity into water, and that the water may not taste or smell of the fire. Some in steed of this long necke and head, haue a pipe of plate or other mettall, very long and writhen or wound about, in forme of a serpent, (and for this reason is called a serpentine) or made of many parts, consisting of direct angles, and these passing through a bucket or some such vessell full of water.

There are many other sorts and fashions of instruments to distill withall, whereof I meane not to speake at this time, contenting my selfe with those which I haue mentioned, as being of more common vse, and fit onely to distill waters: of which it is our purpose onely to speake at this present.

Chusing of the head.

Furthermore, seeing the water doth take his essence and consistence, and other like qualities from the head of the stillitorie, it is good to make choise of the best heads that one can: the best are of glasse: next those of earth, glased within and without: thirdly, those of tinne: fourthly, those of copper laid ouer with brasse: fifthly, those of brasse laid ouer with tinne (but the vessels of copper and brasse haue these two discommodities, the one that they make their waters reddish and halfe burnt: and the second that in copper and brasse there is a venemous quality, more than in any other mettall) sixtly, those of iron, especiallie when a man would distill any thing that is harde to be distilled, and which must bee applied outwardlie, and not taken inwardlie. Such as are not afraid of the cost, do vse vessels of gold or of siluer: but seeing all are not of one and equall efficacy, it is best to rest contented with glasse vessels or earthen ones well leaded, either with glasse or the fat which is called earth of *Beauuais*, rather then with lead or any other mettall: notwithstanding those of earth are the best: the second, those that are leaded or glazed, or of thicke fat earth: next those of tin. Those of glasse must not be of brake mettall, but of crystall earth well armed, which, seeing they cease not to be brittle, how well soeuer they bee armed, must bee heated by little and little, whether it bee in *Maries* bath, or in hot ashes, or in a furnace fire: and in like sort when your distillation is ended, to let them coole by little and little. And for as much as the head is loose from the body, it will be good to set them together with a hempen cloth which hath beene dipped in the mortar of wisedome, which for the most part is made of the whites of egges, beane flower, and a little masticke. The vessell whereinto the water is receiued, and thereupon called the receauer, shall bee a glasse violl hauing a long necke, and the beake or spout of

Heads of brasse and copper.

How to order glasse-stilles.

the

the head must goe into it : and these two in like manner may thus bee fastned and closed together with the said mortar of wisedome, least the water which shall distill, should euaporate very much ; notwithstanding that wee see sometimes some receiuers of the fashion of vrinals, which are not made fast vnto the beake of the head at all.

The threescore and second Chapter.

What manner of furnaces must be prepared for the distilling of waters.

For the distilling of waters.

THE fashion of the furnaces for the distilling of waters is diuers, aswell in respect of the matter to bee distilled, as in respect of the vessels which are vsed in the distilling thereof. As concerning their matter some are made of vnburnt bricks, onely dried well in the sunne, because they are better to be handled, than those that are throughly burnt, and besides they may be cut with a toole, & brought into what fashion one will ; and fitted with fat earth ; other some are made of plaster onely ; some of fat earth onely ; but the best are made with cement, whites of egs, fat earth, and flockes of wooll ; others of beaten bricks, hards, horsedung, sinewes of oxen and fat earth. But as for their fashion, it must bee answearable vnto the vessels that are set therein; and so some be wholly round, and those are the best and most profitable ; others are foure square ; others are raised high like steeples ; others after the fashion of vaults ; some after the manner of stoues, all which you maie finde out by the sight of the eie in the patternes set downe before, and from which you may gather more instruction and more certaine direction, then by all the descriptions that we can possibly make. Such furnaces as you may see with your eies, must haue two bottoms, the one lower to receiue the ashes of the coales or whatsoeuer other matter that the fire is made of ; the other higher which must containe the burning coales, and must be made after the fashion of a gridiron, hauing barres or roddes of iron passing throughout from the one side to the other, quite ouerthwart the furnace ; or else diuided into many small holes, that so the ashes and small coales of fire may fall through to the bottome belowe the more easily, and not staie behinde to choake vp the fire that shoulde heate the still ; the vnderfloore may haue one or many mouthes, for the more conuenient taking awaie of the ashes which shall bee gathered there on a heape, but as for that aboue, it must haue but one onely of a reasonable bignes to put the coales or wood in at ; but in the roofe of it, it must haue two or three small holes to giue aire and breath vnto the fire, at such time as you minde to amend it. Euerie one of the mouthes shall haue his stopple. For want of a furnace or matter for to

make

make one, you may fit and set your vessell, caldron or bowle vpon a brandrith and kindle your fire vnderneath.

The threescore and third Chapter.

How the matter must be prepared before the waters be distilled.

IT is not enough that the furnace and instruments for distillation be made ready in such sort as we haue said, for the matter to be distilled must in like manner be prepared before that it bee put into the still. This preparation is of three sorts, that is to say, infusion, putrifaction, and fermentation. Infusion is nothing else but a macerating or steeping of the thing intended to bee distilled in some licour not onelie that it may be the more apt and easie to bee distilled, but also to cause and procure greater store of iuice to bee in it, or else to helpe them to keepe their smell, or else to bestowe vpon them some new qualitie, or to increase their force and verteus, or else for some other ends, as we will handle them in particular and onely one. It is true that this preparation is not necessary for euery matter, for some there are that neede not any infusion or steeping, but rather to bee dried before they be distilled, by reason of their too great and excessiue moisture: othersome content themselues with being watered or sprinkled ouer lightly with some licour; as is done in the distilling of drie roses and cammomill, which are wont to be sprinkled onely with common water. Some spread them all a sommers night in faire weather vpon a linnen cloth to take the dew, and after they bee moist to distill them. Such as are steeped and infused, lie in the sunne, or are held ouer the fire, the space of some halfe hower, or many howers, a whole night, a whole daie, two daies, three daies, one or moe moneths, according to the nature of the medicine, the diuers intention and purpose of the Physician, and the present necessity. Sometimes we presse and wring out things, which wee infused before the distillation; and making our distillation afterward of the iuice onely that wee pressed foorth: sometimes againe wee distill the whole infusion, that is to say, both the infused matter and the licour wherein it was infused. Wherefore in this preparation which is made by infusion, you must diligently obserue two things: the time of the infusion, and the licour in which the infusion is made. The time of the infusion must be measured according to the diuersitie of the matter: for those things which are hard or solide, or drie, or intire and whole, deserue a longer time of infusion, then those which are tender, new or bruized: whereupon it commeth to passe that roots and seedes require double time to infuse, the leaues and flowers a single and lesser time, and so consequentlie of such other matter or things. The licours wherein infusions

Two things to be considered in infusion.

The time of infusion.

fusions are to bee prepared, must not onelie answer the qualities of such matter as is to bee distilled, in such sort as that hot matter and things be infused in hot licours, and the cold in cold; but likewise the scope and drift intended in the thing distilled, which is the onelie cause of the vsing of variety of licours in the making of infusions: and these are for the most part raine water, fountaine, or rose water, and they either raw or distilled, crude or distilled iuices, distilled waters, aqua vitæ, raw or distilled vineger, wine, raw or distilled vrine, whay raw or distilled, mans bloud, swines bloud, and goates bloud distilled or vndistilled. For this respect things that haue small store of iuice, as sage, betony, balme, and wormwod, or which are very fragrant as all sorts of spices, all sorts of odoriferous herbes, all aromatical rindes or woodes, as cinnamom; would be infused in wine to the begetting of some reasonable store of iuice in them which haue but a little, and to keep the aromaticall fragrantnes in those which smell sweet, which might otherwise euaporate and spend through the heat of the fire, their best and most pretious parts, they being of so thin and subtil a substance. It is true that the best and surest course is not to infuse spices or aromaticall things, neither in wine, nor in aqua vitæ, but rather in common water: because in distilling of them, as proofe will make triall, the vapours will rise too soone, and leaue behinde them the vertues of the aromaticall things: whereas water will not goe vp before it haue them with it. Such matter and things as are hard and metallous, as pearles, corall, shels of egs, crystall, emeralds, iacynths, and other such are infused commonly in raw or distilled vineger, or else in vrine distilled or vndistilled: but such waters are not to bee taken inwardly, but onely to be applied outwardly. In like manner when it is intended that a water shall haue an opening quality and pearce deepe or swiftly, the matter thereof may bee infused in raw and crude, or in distilled vineger; as for example, the waters distilled against the stone or grauell, or to take away the great obstructions of the liuer, spleene, and matrix. When you desire that the water should retaine and keepe in good sort the vertues of the matter whereof it is distilled, it may for the better infusing of it, be distilled in his owne iuice, or in some iuice obtaining the like vertue. Things are likewise sometimes infused in bloud, either of men, swine, or goates, for the increase and strengthening of their vertues; as the water vsed to be distilled for to breake the stone, whether it be in the raines, or in the bladder, may first haue receiued an infusion made in the bloud of goates. As much is to bee thought of the whay of goats milke, wherin things are woont to be infused to draw waters of, which are to serue in cleansing of vlcers of the raines or bladder.

What kind of things are infused in wine.

What matter or things are to be infused in vineger or vrine.

Infusions in the bloud of man, a swine, or male-goate.

Infusion must help or increase the force of the things distilled.

Generally, regard must be had that all infusions be made in such liquor, as will strengthen and increase the vertue and force of the things

things intented to be distilled, as also that such matter before it be set to infuse be shred, stampt small or bruised, putting into it somtime the twelfth part of salt, as vnto those that are too moist, as flesh, blood of men or other beasts, as well to keepe them from corrupting, as to helpe forward the separation of the humour that must be distilled. *The addition of salt.*

Sometimes the things to bee distilled are suffred to putrifie, and then afterward distilled: yea sometimes the verie putrefaction it selfe is the waie and whole worke for distilling of such things, as we will declare hereafter. *Putrefaction.*

Fermentation is accomplished and performed vpon the matter of infusion alone, or the whole infusion togither, in the heat of the sunne in the dog daies, or else in some furnace or horse dung: it requireth manie daies continuance as fower or more, and by how much this fermenting and preparing of the thing is the more substantially performed, by so much the greater quantitie of water will be distilled and drawne out.

The fower and sixtith Chapter.

Generall precepts about the distilling of waters.

After that the matter is in this manner and fashion prepared as wee haue saide, there remaineth nothing more to be done, but the putting of it into the stillitorie: and herein you must carrie your selfe verie wisely and discretely, in obseruing certaine generall precepts for the ordering and directing of the whole worke vnto a good and perfect ende.

First prouide that your furnaces bee set in such a place, as where they may not indanger the setting of your whole house on fire; as that they also may not be subiect to haue any thing to fall vpon them. *Furnaces must be set in a place where they may not doe or take hurt.*

If you distill quicksiluer or any other such thing which hath a venemous malignitie come not neere vnto your stils, all the time of the distilling of such matter: for the smoake or fume which they breath out, doth draw vpon a man the palsie, exulceration of the lungs, lethargie, or oftentimes sudden death: as you may see by experience in such as are plummers and imploied in melting of metals. *When we are to stand far off from the stilles and not to come neere them.*

If you distill in glasse vessels, you must make choise of such as are well baked and seasoned, hauing no bubbles or knots, but equall on euerie side and smooth, thicke, and prooued before hand. *The chusing of glasse-stilles.*

The coales must be through kindled and halfe burned before you put any thing into the still, that so the fume or yet any other noysome qualitie of the coales may not remaine to breath vpon it: or at the least put some few ashes or small quantitie of sand betwixt the still and the furnace, that so the coales may not infect the water with the smoake: Likewise the fire is not to be made with wood halfe rotten,

or that ſtinketh, or with charcole burned and made in a pit, or of coale drawen and digd out of the earth, whether they be of ſtone or earth, for feare the ſtilling veſſels and water ſhould bee infected and marred with the filthie and ſtinking vapour thereof.

A gentle fire at the firſt.

The fire muſt not be haſtie or headlong at the beginning, as well for the ſafetie of the veſſels which might thereby be broken, taking too ſudden a heate: as alſo to the ende that the matter diſtilled may become acquainted with the fire by little and little: and that ſo farre as till the fire become to the third degree, if need ſo require.

Whas quantitie of matter is beſt to be put in the ſtill.

You muſt not put into your ſtils or a limbecke too great a quantity of matter, for ſo it might runne ouer and be caſt foorth againe; and furthermore that vnderneath would be parched and dried away, and that aboue would remaine as it was put in: but it is rather the ſafer courſe to ſhift them oft, and ſo by this meanes you ſhall haue greater ſtore and plentie of water.

The water of Maries bathe may not bee hotter then the finger may indure to ſtay in it: howbeit oftentimes there come things to be diſtilled in the double veſſell, for the diſtilling whereof if it ſhould come to paſſe that the heat of Maries bathe ſhould not be vehement enough, then mixe therewith ſome ſmall ſand to increaſe the heat of the water.

To diſtill in the heat of ſand.

If the glaſſe ſtill happen to cracke being ſet vpon the fire, you ſhall let the ſpirits from euaporating, if you dip diuers linnen cloathes in the whites of egs well beaten, and apply them vpon the cracke of the glaſſe hot one after another: in ſuch ſort that ſo ſoone as one ſhall bee dried like a cruſt, an other be readie by and by to put vpon it, and ſo to continue.

If you diſtill your waters in the heate of ſand (as manie doe and that verie oftē) or of aſhes, or the filings or ſcales of iron made in powder, the bodie of the ſtill muſt be armed (whether it bee of glaſſe or braſſe, or any other matter) with verie fine aſhes that haue beene ſifted, or with ſand, or with the filings of iron finely powdred, in ſuch ſort as that the aſhes may be higher about the glaſſe then the matter is within by a halfe foote good. The aſhes ſhall be placed in the vpper part of the furnace, or in a place of hold made vpon the furnace, and heated with a coale fire which ſhall bee below in the bottome of the glaſſe. The waters ſo diſtilled indure much longer, then thoſe which are diſtilled in Maries bathe: but in all other points they reſemble and are like one vnto an other.

To make a ſpeedier diſtillation then ordinarie.

If you haue not the leaſure to make your diſtillation in a ſtill, and that yet you would gladly diſtill ſome certaine iuice or liquor: then cauſe your iuice to boyle in ſome veſſell, and ouer this veſſell ſet a glaſſe: in this glaſſe the vapour will turne into water: by this meanes

Vineger diſtilled in that ſort.

vineger is turned eaſily into a water which is verie profitable for the

ſpots

spots and staine, of the eie, especially if before the distilling of it you cause some few slips of rue to be boyled in white vineger.

Hot things that they may proove effectuall would bee distilled three or fower times, putting and adding vnto euerie time new matter, or else to rectifie them by themselues: but as for cold things, such as the rose is, once distilling is sufficient: for by this meanes it holdeth stil his cooling qualitie in better sort, seeing the force of the fire begetteth heat and sharpnes in things. *To distill one water manie times.*

When you would distill one water three or fower times, you must at euerie distillation diminish the heat of your fire halfe a degree, and afterward a whole degree, and so consequently vntill in the end you come backe vnto the first degree spoken of before, and called such a heat as is but warme the reason is because that the matter becomming more and more subtill at euerie distillation, craueth not so great a heat at the ende as it did at the beginning when it is in his grosest state and condition. But it is contrarily practised in the extracting of quintessences out of any thing: for then the heat is too bee increased and augmented more and more. *The heat required to the distilling of one thing ost.* *The extracting of quintessences.*

In all maner of distillations of waters, you must carefully see to the separating of the flegme, that is to say, the grosest, thickest and most watery part of the humor distilled: and for the doing hereof you must carefully consider of the matter which you distill: because the flegme commeth foorth sometimes first, sometimes the least in the distillatiõ as in the distilling of aqua vitæ it staieth the lest, notwithstanding that it bee distilled diuers times: in the distilling of the most part of other thinges it commeth foorth first, as in vineger, hony, and such things: and the thing is discerned by tasting of the first and last distilled waters. And if it happen that the flegme bee not separed in this sort, as indeed it is not in some such, as with which it is mixt: then the next course is to set such waters in the sun certaine daies in vessels couered with linnen clothes, or parchment prickt full of small holes that so the excrementous part by such meanes may be consumed and wasted: or if the sun faile, as in winter time, then you must set your vessel containing your distilled waters in other vessels full of water, and cause them to boile to the consumption of the third part. *To separate the flegme in distilled licours.* *The time of the flegme his commming forth.*

The distillation is to be iudged to be in good state and case, if betwixt the fall of euery drop, you can accompt to the number of twelue: and hence also is the iudging of the force and quantitie of the fire to be learned and fetcht. *When the still is in good temper, and stilleth not too fast nor too slow.*

If any man desire that waters should haue some smell, taste, or other qualitie of some thing, as of hony, cinnamom, camphire, musk, or other like sweete smelling thing, (whether it bee to giue such smell to the thing that hath none at all, or vnto something that hath a bad and vnpleasant smell, as wee will speake of by and by in the water di- *To giue a good smell or tast to distilled waters.*

ſtilled of mans dung) it will be good to annoint and beſmeare the head of the ſtill with theſe things, or elſe to tie vp the ſame in ſome little knot of linnen cloth, and hang them at the verie point of the ſpout or pipe, to the end that the water diſtilling through this matter, may retaine that ſmell or other qualitie intended.

And whereas diſtilled waters by force of the fire are euermore ſeen to retaine ſome impreſſions and printes of the heate, it will be good preſently after they be diſtilled, to let them ſtand ſometime vncouered in the veſſels wherein you meane to keepe them, hauing yet therewithall regard, that neither their ſmall nor any part of their force do waſte or ſpend: and therefore to take the ſureſt courſe, it will be beſt to ſet your veſſell cloſe and faſt ſtopt in ſome cold place in moiſt ſand to diminiſh and take away the great heat of the ſame. Notwithſtanding you muſt marke and know that cold waters, which ſhall be diſtilled in Maries bath, will haue no great need to be ſo vncouered, but that they rather muſt be ſet in the ſun in a glaſſe veſſel not altogether full: or elſe that they with their veſſel be ſet ouer head and eares in hot ſand for the ſpace of forty daies, to the end that their flegme and thickeſt humour may be conſumed.

Troubled waters. If your diſtilled waters become troubled, you ſhall reſtore them to their clearneſſe by putting thereinto ſome one or two drops of vineger for euery pinte of water.

The fiue and ſixtieth Chapter.

Of the particular manner of diſtilling of herbes, rindes, flowers and rootes.

Diſtilled waters are of diues ſorts and vertues: ſome are Phyſicall or Medicinable, as the water of roſes, ſage, marierom, and ſuch like. Others are nouriſhing, as reſtoratiues, and many both medicinable and nouriſhing, as nouriſhing reſtoratiues: whereinto are put medicinable things. Others are purgatiue, as the water or licour of rubarbe if it were new and greene. Others ſerue to grace the face and handes and to make beautifull. Others for to gratifie the noſe by yeelding a ſweet ſmel, as thoſe which are drawne out of ſpices and ſweete ſmelling ſimples, vſed alſo to waſh the hands, face, and whole body, and againe all theſe waters are either ſimple or compound: but we will firſt ſpeake of the ſimple medicinable ones.

Water of wormwood. Wormewood muſt be diſtilled in Maries bath to draw out his water in ſuch ſort as that it may expreſſe by ſmell and taſte from whence it came: and for the better dooing of it, you muſt ſee that you diſtill it not very new, but ſomewhat dried and afterward infuſing it a little in wine to diſtill in it Maries bath, or in hote aſhes: Mugwort, agrimony, ſorrell and ſuch other like plants, are thus diſtilled alſo,

alſo, but with obſeruation had of the generall things ſpecified before. Thus the water of winter cherries is diſtilled, ſeruing againſt the ſtone and grauell as well of the reines as bladder. *Water of winter cherries.*

The vttermoſt pilling of common walnuts, whether it ſhale willingly or no, may be diſtilled in the moneth of Sptember: and the water drawne from them, drunke in ſmall quantitie with a third part of vineger, is a certaine remedie againſt the plague if before drinking of it you cauſe the partie to be let blood: it is ſingular good alſo to make gargariſmes of, for the vlcers of the mouth: it is good alſo to foment goutie places withall, and good to colour the haire blacke. Water diſtilled of the leaues of the walnut tree in the end of the moneth of Maie is ſingular for to drie and cicatrize vlcers, if they be waſhed euening and morning with a linnen cloth moiſtned therein. *Water of common walnuts.* *Water of walnut tree leaues.*

To diſtill ſtrawberries, you muſt let them putrifie in a glaſſe veſſell putting thereto a little ſalt or ſugar, and then afterward to extract and draw out their water which is verie ſoueraine againſt venome: as alſo to take way ſpots, to prouoke the termes, and dry vp weeping eies: it will performe all theſe vertues in admirable manner if there be mingled with it a little aqua vitæ. *Water of ſtrawberries againſt venom ſpots.* *To procure tearmes.* *To drie the weeping eie.*

The inward rinde of the aſh tree being diſtilled doth yeeld a ſingular water againſt the plague, if it be drunke in equall quantitie with aqua vitæ, as three ounces of either, eſpecially if the ſame drinke in the ſame quantitie be drunke againe within three houres after: it is good alſo being dropt into the eares for the noice in them. *The water of aſh tree.*

The ſtones of blacke cherries, being broken, or the kernels alone diſtilled, make a water which doth quite take away the fit of the falling ſickues in yoong children, preſently after that there hath beene put into their mouth about halfe an ounce. *Water of cherrie ſtones and kernels.* *The falling ſickues.*

The diſtilled water of newe filberds, drunke the weight of two drams, is a preſent remedy againſt the collicke and gripings of the belly, a thing that will not faile, hauing beene prooued and tried. *Water of filberds.*

The water which is diſtilled of the barke of danewort or elder tree, being oftentimes drunke, doth euacuate and draw the water out of ſuch as haue the dropſie. *Water of danewort.*

The water of betony: you muſt ſtampe the leaues of betonie and infuſe them a certaine time in wine and after diſtill them. The water of balme and ſage is diſtilled in like manner. The water of betony is good for the diſeaſes of the head, reines and bladder. The water of balme reioyceth men, keepeth away the fits of the Apoplexie, and falling ſickues, it cauſeth a good memorie, taketh away the paine of the teeth, breaketh the ſtone, healeth the dropſie, preſerueth from venome ſuch as haue ſwallowed any ſpider, if it be drunke preſentlie after. *The water of betonie.*

The water of gentian: Take foure pound of the new rootes, or rather *The water of Gentian.*

rather of the dried rootes of gentian: chop them ſmall, infuſe them in wine, or beſprinkle them onely, then afterward diſtill them. This water is ſingular againſt the plague, all ſortes of venome, the ſtone as well of the raines as of the bladder, and to heale inward apoſtemes and vlcers.

The plague.

The water of pillitorie.

The water of pellitorie: Take the rootes of pellitorie new or old, cut them ſmall and infuſe them in verie good wine: the water is good for to appeaſe the ach of the teeth, to ſtrengthen them and keepe them cleane, if the mouth be waſhed therewith in the morning, or elſe when it ſeemeth good to doe it.

Paine of the teeth.

Water of eiebright.

To make water of eiebright: Take the leaues and flowers of eiebright, diſtill them: the water thereof doth cleare the ſight.

The water of nicotian.

The water of nicotian is diſtilled as the other going before: but of this we haue largely diſcourſed in the ſecond booke, & haue ſhewed that it hath maruellous effectes, againſt the *Noli me tangere*, cankers, ringwormes, ſcabs, ſhortnes of breath, and the dropſie.

The water of Paules betonie.

In this ſort alſo you muſt diſtill Paules betonie: the water whereof is ſingular to heale woundes, ſcabs and other diſeaſes of the skin.

Leproſie.

Scabs.

The vſe of this water is very excellent for the leproſie, peſtilent feuers, obſtructions of the liuer and ſpleene, and exulceration of the lungs. In this ſort alſo is mouſ-eare diſtilled, whereof we haue ſpoken in his place in the ſecond booke.

The water of hyſſop.

The water of hyſſop muſt be diſtilled vpon hote aſhes: it is excellent for the paine of the teeth, to prouoke womens termes, for the cough, and other diſeaſes of the lunges.

The water of turneps.

The water of turneps: Take whole turneps with their skinnes and all, or elſe the skin alone, you ſhall diſtill a water (eſpecially of the pilling or skin) which will bee profitable to prouoke vrine and ſweating.

Water of limons.

Water of limons or the iuice of them doth helpe very profitably in the ſtone of the reines.

The water of fenell.

The water of fennell: Take the rootes and leaues and diſtil them, or elſe boile them in water, afterward put them al hote into a tin or copper platter, and couer the ſame with an other platter: the licour which ſhall bee vpon the vppermoſt platter ſhall be kept in a violl, to put a drop or two thereof into the corner of the eie, for the diſeaſes of the eie.

The water of parſley.

Water of parſely of the garden: Stamp in a morter the leaues of parſely, then diſtill them: it cleanſeth the ſtomacke and conforteth the reines.

Water of ſmallage, baſill, mynts, bugloſſe, &c.

After the ſame manner are diſtilled the waters of ſmallage, baſill, bugloſſe, mints, cammomill, marigoldes, Cardous benedictus, clarie, ſuccorie, capillus Veneris, cheruile, endiue, aller, fumitorie, broome, Iuie, horſetaile, lauander, marierom, melilot, mallowes, holihocke,

lihocke, water lillies, nigella, organie, pionie, poppie, pellitorie of the wall, burnet, plantaine, purcelaine, penniroyall, rue, rosemarie, madder, sage, sauorie, scabious, scolopendrium, nightshade, houseleeke, willow leaues, groundswell, thyme, white mullein, tansey, valerian, veruaine, of the flowers and leaues of the stinging nettle, as well as of the dead nettle, and of manie other plantes, obseruing the generall precepts, which we haue set downe before.

This is the manner of distilling cinnamom: Take a pound of fine cinnamom, breake it lightly, and infuse it a certaine time in the distilled weter of roses the quantitie of fower pounds, and of verie good white wine halfe a pound, after put it all into a glasse still to be distilled either vpon hot ashes, or else in Maries bath: such water is forcible against all cold diseases, especially of the stomacke, spleene, liuer, braine, matrix, sinewes, faintings and swounings, to prouoke the termes of women and retained vrine, to stay vomits, to represse the malignitie of all sortes of cold venome, and for the deliuerie of women that are in trauell of childe. *The water of cinamom.* *A bad stomack.* *Wearied sinews or lassitude.* *Venome.*

Rose water is distilled, either of new roses or of drie roses, and they are either white or carnation. The fashion and manner of distilling of it is diuers: for sometimes it is distilled by defluxion tending downeward, which is called in Latine *Destillatio per descensum*, according to the matter which we shall declare in the seuentie first chapter hereafter following. Sometimes it is distilled by insolation, as we will likewise shew in the same place: sometimes and that oftest, as also best, in Maries bath, and before the distilling of it, if the roses be dry it is good to moisten them with the vapour of some boiling water or some roses. The water which is distilled of red roses, is more cordiall and corroboratiue, as that which is made of white roses is more cooling. Then to distill good rose water you must infuse roses in distilled rose water, or else in the iuice drawne from them, and that by the space of two or three daies, your vessel being well luted and stopt, and afterward put them in a glasse still, couered with his head, and they both well luted and fitted one to another, and finally set them thus conioyned in your vessell of Maries bath. *Rose-water.*

Water of orenge flowers, called water of Naffe, being distilled by a bell, is good to procure vomit, as also to make a good smell. *Water of oreng flowers.*

The water of wilde apples and of oke apples vnripe, of chesnuts, and of veriuice halfe ripe, is good against the red pimples and harde knobs in the face. *Water of wild apples.*

The waters of flowers (as of rosemarie, which is good to reioice the hart: of elder tree, which keepeth the face cleere from sunne burning: of marigolds, which comforteth the eies: and such others) are distilled after the manner of rose water. *The water of elder, rosemarie and marigolds.*

The threescore and fifth Chapter.

Of the manner of distilling licours.

WE haue heeretofore declared that the singular and rare efficacie and vertue of things distilled, haue in such sort rauished and carried away the spirits and studies of men, as that there is scarce any thing to be found which hath any good propertie and speciall quality in it, but it hath beene brought vnder the yoke of distillation. But in this place I call liquor all that which hath a liquid consistence, whether it be iuice, humour, excrement, or any such like floting thing, as wine, vineger, hony, vrine, iuice of herbs or fruits: and you cannot but thinke that the iuice of herbes or fruits being distilled doth affoord a farre better water, than that which is distilled of herbes, yea or of fruits either: we will begin therefore with distilled wine.

What is ment by licour in this place.

Aqua vitæ.

Aqua vitæ is thus distilled: (notwithstanding that all manner of wine is fit to make Aqua vitæ of, so that it be not sowre, spent, or otherwise tainted, yet indeede the strongest and noblest claret wine is the best, whether pallet and inclining to white, or high coloured and inclining to red:) Take (then) of claret wine a certaine quantitie according to the bignes of the vessell wherein you distill it (which is called the bladder, as we haue declared before, namely in that it is fashioned like vnto a straight gourd) euen so much as may fill it within one third part of the top, that so the vapours may haue space to rise, then set the head vpon it hauing a long snout, and this must be well closed with the mortar of wisedome (being the same which wee haue before described) to the ende that no vapour may passe out thereby: and thus cause it to distill with the heate of hot, but not boyling, water: or else at a reasonable heate in ashes or in small sand, increasing the fire continuallie by little and little, and yet taking heede that the wine doe not boile: and to the end that you may haue excellent good Aqua vitæ, you may distill it ouer foure or fiue times: for by how much the ofter it is distilled, by so much the better will it be, as we haue said already. For the first distillation it shall be enough to draw the tenth part, that is to say, of ten pintes of wine one pinte of Aqua vitæ, more or lesse: for the second halfe of that which you shall haue put in, that is to say, halfe a pinte: for the third likewise the halfe or a little lesse, which should be a quarter of a pinte: in such sort as that the ofter it is distilled you must haue lesse in quantity, but more in value and worth; and therefore in the beginning you must either take a great quantitie of wine, or else haue many vessels. It is true that if the distillation be well made, the fourth will yeeld the like quantitie of water to that it receiued, and there will be no losse in it:

The bladder still to distill aqua vitæ in.

Aqua vitæ often distilled.

and

and herewith likewise it is to be wished that euerie man would be contented without going ouer it any more : because so manie repetitions and redistillations is a matter of great labour and cost. In the meane time this must be remembred, namely, to lessen the fire at euerie distillation halfe a degree, and afterward a whole degree, that so in fine you may come to the first degre called blood warme. And truly by mine aduise the first distillation should be in the fire of ashes, and the other in Maries bath. ¶ This repeating and going ouer with it by distillation after distillation shall be to take from it his flegme, that is to say, his grossest and most waterie humour, which resteth in the bottome, and is accustomed to come forth last, after that it is well digested by being oft distilled. Finally it may be gathered that the Aqua vitæ is sufficiently distilled by these signes : if there come backe the like quantitie of water, if being set on fire, it consume and waste all away, not leauing any signe of moisture behinde it in the bottome of the vessell : if a linnen cloth that hath beene dipt in the Aqua vitæ being set on fire doe not burne any iote at all, if a drop of oile being put into it, goe to the bottome, if a drop of Aqua vitæ being powred in the ball of your hand, doe waste away and vanish very speedily, if yellow amber being set on fire doe burne in the Aqua vitæ, and likewise if camphire being put into Aqua vitæ, be dissolued of it. You must also note that Aqua vitæ is sometimes distilled of lees of very good wine, being neither sower, nor spent, nor otherwise tainted ; and such Aqua vitæ sometime is not inferiour but superiour in goodnes vnto that which was distilled of the wine it selfe : Againe if it be often distilled ouer, it becommeth more hot and drie, then that which is made of the very wine : but yet indeede that which is made of wine is more pleasant vntò the taste, and of a more delightsome smell : Aqua vitæ is also sometimes distilled of beere, but that is not so good as the other of wine. The vessels for the distilling of Aqua vitæ are diuers, that is to say a good still, sitting in ashes or sand, or a retort in Maries bath, or the bladder : Aqua vitæ may also be distilled in a caldron or pot of copper or brasse made in manner of a beefe pot, couered with a couer and hauing a straight nose comming out of it and rising vp on high, and turned downeward againe with a direct angle, and so passing through a bucket full of cold water. After that the Aqua vitæ is distilled you must set it out into the sun a certaine time to make it yet more and more subtile. After this sort you may distill all iuices and licours, as mans blood, vrine, vineger, the deaw, milke, whites and yeelkes of egs, mans dung or beastes dung. The vertues of Aqua vitæ are infinite. It keepeth off the fits of the Apoplexie & falling sicknes, in such sort, as that they which are subiect vnto that disease in the time of winter, must euery morning take a spoonefull of Aqua vitæ sugred, and eat a little bit of white bread : it drieth away venome, keepeth

Signes shewing that the aqua vitæ is sufficiently distilled.

Aqua vitæ is distilled either of wine, or wine lees or beere.

Vessels for the distilling of aqua vitæ.

Vertues of aqua vitæ.

wines

wines from ſpending themſelues, from putrifying and from growing thicke and troubled : it cureth ſpeedily all the cold diſeaſes of the ſinewes, muſcles and ſtarued members, if they be fomented therewithall, it killeth worms, and aſſwageth the paine of the teeth, &c. See more in our booke of ſecret remedies.

Diſtilled vineger.

The difference betwixt Aqua vitæ and Vineger in their maner of diſtilling.

For the diſtilling of vineger you muſt vnderſtand, that there is ſome difference betwixt the diſtilling of Aqua vitæ and vinger : for ſeeing that wine is of a vaporous and fierie ſubſtance, the chiefeſt and principalleſt parts in it doe run at the firſt diſtillation, that is to ſay, with the water that firſt commeth foorth, inſomuch as that that which remaineth and ſtaieth behinde in the veſſell taſteth no better than common water, hauing in it no force or vertue. On the contrary, the firſt that diſtilleth of vineger taſteth nothing at all, ſaue onely that it ſheweth it ſelfe ſomewhat more in his earthie partes by the alteration of his qualitie (for vineger is no other thing but a corrupted wine, made eager by putrefaction) for indeede his true, naturall and proper qualitie of eagerneſſe and ſowerneſſe, as alſo the force and ſtrength thereof, ſtaieth behinde with that in the veſſell, till after the firſt water be paſt. And by this it appeareth that that which remaineth in the wine after the firſt diſtillation of it, ſhould be called flegme, as that ſhould alſo which commeth out firſt in the diſtillation of vineger, be called flegme of vineger. Wherefore to haue good diſtilled vineger, after you haue put it in like quantitie, as we haue ſaid of wine for to make Aqua vitæ) into the ſtillitorie, you muſt let the flegme (that is to ſay, the watrie humour) diſtill and ſet it aſide in ſome veſſell by it ſelfe : afterward when the vineger ſhall be conſumed vnto the third or fourth part, and that it ſhall reliſh in taſting of the diſtilling drops that the eager parts of the vineger begin to come, it will be good to ſet that aſide to ſerue for infuſions : and then afterward to increaſe the heate of your fire a little and ſo continue your diſtillation, vntill ſuch time as the water begin to looke red and to haue the conſiſtence of hony or of pitch, and then you may be bold to ſet it aſide for your ſpeciall vſe, not in medicine, but otherwiſe in all things concerning mettals and corroſiues. For this water making the third alteration in diſtillation, taſteth of aduſtion, and is called the ſanguine part of vineger. Vineger would be diſtilled in the ſame veſſell that roſe water is diſtilled in, eſpecially in aſhes or hot ſand, rather than in Maries bath: In like manner and after the ſame ſort you ſhall diſtill vineger of roſes, of elders, of cloues, and other things. Diſtilled vineger is good to diſſolue hard and metallous things, as pearles, corall, egge-ſhels, cryſtall, and emeralds : notwithſtanding gold and ſiluer cannot be diſſolued by it. This is the cauſe, that when Alchymiſts would diſtill any mettall or ſtones to draw out their oile : they vſe firſt to diſſolue their matter in vineger or vrine diſtilled.

What veſſels vineger would be diſtilled in.

The vertues of diſtilled vineger.

Salted

Salted water or ſea water is made ſweete by this meanes. Fill a pot of ſalt water, let it boile by the fire ſide, and afterward diſtill with a ſtillitorie, as you doe roſe water, and the ſalt will ſtay in the bottome. And this is alſo the way to trie what metals are mixt with minerall waters. *Salted water or ſea water.*

The maner of diſtilling of hony is ſuch. When the hony is once well purified, put it in ſmall quantitie into a ſtillitorie (for in a great quantitie it would ſwell ouer, after that it ſhould once feele the heate) diſtill it in Maries bath with a gentle and warme heate: the water that commeth firſt foorth is the flegme which muſt bee kept by it ſelfe for to colour and make long the beard and haire. Afterward increaſing the heate a little, there will come foorth a water of a yellow, and as it were a golden colour, which you may keepe in an other veſſell, ſeeing it is good to cleanſe wounds both ſhallow and deepe ones: your diſtillation continuing there will come foorth an other water high coloured and more red then the former, and then if you doe well, you ſhall change the heate of the water into the heate of the aſhes or ſand, that is to ſay, that you ſhould remooue your ſtill and ſet in aſhes or ſand euen almoſt vp to the very mouth, and that there be not aboue three inches in breadth betwixt the fire & your ſtill, continuing to increaſe your fire and to make it bigger then it was before, and by this meanes there will come foorth a water more clammy then the former, and may be called the oile of hony. After this manner you may diſtill turpentine and ſuch other thicke and clammy licours. Indeede to diſtill ſuch thicke licours, were better to be done by a retort, rather then in Maries bath, as wee will manifeſt when we come to ſpeake of the diſtillation of oiles. *Honie diſtilled.* *To colour the haire.* *Turpentine diſtilled.*

For to diſtill the blood of a male goate: Take the blood of a yong male goate being well fed, but not that blood which ſhall come foorth firſt, nor that which ſhall bee laſt, but that which ſhall come foorth in the middeſt: let it ſtand and ſettle for ſometime, and then caſt out the water that ſhall ſwim aboue: after with a tenth or twelft part of ſalt ſtir it well a long time and worke them together very throughly; this done put it vp into a veſſell well ſtopt and luted, and bury it in a dunghill of horſe dung for the ſpace of fortie daies: afterward diſtill it oftentimes ouer powring it ſtill againe and againe vpon the droſſe or bottome of the diſtillation ſtaying behinde. After you haue thus diſtilled it foure or fiue times, you ſhall haue a meruellous water, and yet it will be better if it be ſet in horſe dung fortie daies moe after that it is diſtilled. This water is ſingular for the breaking of the ſtone. *The blood of a male goate diſtilled.* *The ſtone.*

The blood of a yoong man is diſtilled in the ſame ſort, but the man muſt bee of a good complexion and ſound body, of the age of twenty yeeres or there abouts, of a well fed and fleſhie body: and it ſerueth in ſteed of reſtoratiues vnto thoſe which are in a conſumption: *Mans blood diſtilled.*

It

it is good likewise against rheumes and distillations falling vpon the ioyntes, if the diseased places be fomented therewithall. Howbeit I doe not greatly approue the distilling of mans blood for any such end, seeing it is an vnworthy and heynous thing and not beseeming Christians, and a thing likewise which in the middest of so many other helpes may easily be spared. See more amongst our secret medicines.

The blood of a drake distilled.

The blood of a drake is in like manner distilled against poison: and after the same sort may the blood of a calfe, badger or hare be distilled.

Distilled milke. The vertues of distilled milke.

You may distill milke also after the same manner that Aqua vitæ is distilled. It is reported that in Tartarie the water of distilled milke maketh men drunke, such milke therfore must be good and fat, such as is the milke of a heyfer. Some Physitions hold that distilled milke is good against the Iaundise, as also against a quartaine ague, if it be distilled with like quantitie of wine.

The milke of a she goate distilled.

The milke of she goates is oft distilled, to serue for the cleansing of the vlcers of the reines and bladder, whereunto the milke it selfe would serue a great deale better, if they be fed for the most part with burnet.

The distilling of mans dung. Deepe vlcers.

Mans dung is distilled in a glasse stillitorie in such manner as aqua vitæ is distilled: the water that it distilleth, (especially if it be of the dung of a red or freckeled man) is soueraigne good to heale and cicatrize deepe, hollow, old, and rebellious vlcers, and to take away the spots of the eies. Taken also in manner of a drinke, it deliuereth from the falling sicknes, and in like sort if the head be rubd therewithall: it deliuereth also from the stone of the reines and bladder and from the dropsie, and doth them very much good that are bitten of a mad dog, or of other venemous beasts. Notwithstanding whereas such water simply and without any manner of mixture distilled, doth retaine the smell of the said excrement, it will be good to the end to giue it some good taste, to clap to the end of the nose of the still some nodule or little knot of linnen cloth containing muske in it; or else to annoint the head within with the said muske or some other such like thing that is of a good sauour. And thus may the dung of kine or pigeons be distilled; the distilled water whereof is good to breake the stone.

The byting of a mad dog. To giue a good smell to the distilled water. Water of cowes dung and pigeons dung.

The seuen and sixtith Chapter.

Of the manner of distilling liuing creatures, or their parts.

To distill liuing things.

TO distil the body of any beast, you must first strangle it, that so it may not shed any blood, and after take away all his fat (if hee haue any) & the entrailes: then chop the flesh small, & cast vpō it

it the tenth or twelfth part of ſalt, and ſo diſtill it in Maries bathe, or vpon hot aſhes after the manner of roſes. Thus the yoong and tender ſtorke which did neuer flie is diſtilled; but he muſt firſt be bowelled and ſtuffed with an ounce of camphire and a dram of amber: the water that commeth thereof is excellent to make liniments and fomentations in palſies and conuulſions. After the ſame ſort is the pie, frog, ſnailes, ants, liuers, and lungs of calues, of a foxe, and other ſuch like beaſts diſtilled: howbeit, without any ſuch long and tedious preparation they may be diſtilled by and by after the manner of other waters, as wee will foorthwith declare in the diſtillation of reſtoratiues. *The water of a ſtorke.*

The water of ſwallowes: take ſwallowes the weight of ſixe ounces, and caſtoreum an ounce, let them infuſe a whole night in water and put into a lembecke bee diſtilled: this water is ſingular to preſerue one from the falling ſickneſs, if it be taken but once a moneth to the quantitie of two ſpoonefuls, and that in a morning faſting. *Water of ſwallowes.*

The fleſh of beaſts is diſtilled on this manner: cut and chop the fleſh ſmall, incorporate and ſtampe it with a tenth part of common ſalt: after put it in a veſſell (like vnto a gourde) well ſtopped that ſo you may burie it in the earth, ſet and compaſſed round about with vnquencht lime and dung of horſes halfe rotten, to be digeſted in the ſame for the ſpace of a moneth or thereabout, during which time you ſhall water the ſaid vnquencht lime and dung often with warme water to ſtirre vp their heate, and you ſhall renew the lime and dung three or foure times euery weeke: for you muſt thinke that for want of heat, the fleſh might putrifie in ſteed of digeſting. And after they haue beene ſufficiently digeſted (which you may know by ſeeing the groſſer parts ſeparated from the more thinne and ſubtill) the veſſell ſhall be taken out of the dunghill, and the head of a ſtill ſet thereupon the noſe or ſnout being well luted, and ſo it ſhall be diſtilled in Maries bathe diuers times ouer, powring the diſtilled water againe vpon the reſidence or droſſe remaining in the bottome ſo oft as you rediſtill it. And after the fifth diſtillation, you ſhall ſet aſide the water to keepe, if ſo be you had not rather circulate it, to giue it the nature as it were of a quinteſſence. *The water of fleſh.*

As well the whites as the yelkes of egs are diſtilled after the manner aboueſaid: but they muſt not be digeſted in the dung aboue fiue or ſix daies at the moſt. *Water of egges.*

The waters thus diſtilled are more then reſtoratiues, hauing the vertue to increaſe the ſubſtance of the body and members, as natural fleſh and nouriſhment doth.

The

The eight and fixtieth Chapter.

Of the manner of distilling of restoratiues.

Restoratiues.

REstoratiues are prepared after diuers sorts, notwithstanding the most vsuall and best is thus: take the flesh of a veale, kid or weather, cut and chopped as small as possiblie may be: or else take musculous flesh which is called the whites of capons, pullets, fat and well fleshed hens, after they haue been well hunted and tired, cut likewise and chopped small: put vnto this flesh, calues feete, peeces of gold, or rather the thinne beaten leaues of gold: put all in a glasse still well luted with mortar made of flower, whites of egs and a little masticke: into this still, you shall cast (for the giuing of some grace vnto the distillation, & somwhat to mitigate the heat that it might get by the fire) halfe a handfull of cleane barley, a handfull of drie or new red roses, which haue beene infused in the iuice of pomegranates or rosewater, and a little cinnamom: place them all in the still, as it were after the manner of little beds, and straw thereupon the powder of the electuarie of cold Diamargariton, or of precious stones, and a little coriander prepared and finely powdred to discusse and waste all windie matter. If you would make your restoratiues medicinable, you may adde thereunto things concerning the disease that presseth. As rootes and herbes respecting the head in the diseases of the head, as betony, penny-royall, stæchados, organie, sage, and others such like: for the diseases of the reines, the rootes and plants that are good to breake the stone: for the falling sicknes the seed of piony, and misletoe of the oake: for the quartaine ague, polipody, scolopendrium, and the rootes of tamariske; for the French disease, the rootes of gentian, enula campana, & the wood guaiacum, & so of other things: yet it seemeth vnto me that it were better that the cordiall powders should not be mingled among the rest, for feare that their force, which is thinne, subtile, and verie fragrant should euaporate through the heat of the fire, and that it would be farre better to straine the distillation through a linnen cloth that is very cleane, and which should haue the cordiall powders in the bottome of it: there may likewise be added a quantitie of treacle, with some conserues, as occasion shall be ministred: the matter thus disposed of, it shal be distilled in a stillitory of glasse well luted (as we haue said) and in Maries bathe; or else in ashes, grauell, or hot sand: for by this meanes the distillation will taste least of the fire. It will be good before the flesh be put into the still to be distilled, that they should haue boiled a boile or two in a new earthen pot, to take from it the grosse excrements hanging about the same. Againe, it must be remembred, that if there be any gold put into the distillation, that it will be better to put in such as is wrought into leaues

leaues then groſſe peeces: becauſe that groſſe peeces in reſpect of their ſolidnes conſume but a verie little and with much adoe. This is called a diuine reſtoratiue and muſt be giuen vnto the ſicke party prettie and warme. *The diuine reſtoratiue.*

An other manner of reſtoratiue after the Italians faſhion: take a capon or a good hen, which yet neuer laid egs, let hor or him be pulled aliue that ſo the blood may be ſtirred & diſperſed throughout the bodie: after you haue pulled them, take out the guts, and afterward ſtampe bones and all together in a morter, putting thereto as much crums of new bread as there is ſtamped fleſh, pound all together with a handful of ſcabious either greene or drie, and the weight of a French crowne of the leaues of gold; let it all ſettle a whole night, after diſtill it, adding thereto three pound of verie good wine, ſuch as is of a ripe grape. *Another reſtoraiue.*

An other manner of reſtoratiue: boyle a capon or ſome ſuch other flying fowle whole and intire, with burrage, bugloſſe, ſcariole, endiue, lettuſes, or other ſuch like herbes as ſhall be neceſſarie in reſpect of the diſeaſe, and when it hath boyled till it ſeeme as rotten with boyling, take the broth or ſupping and put it into the ſtillitorie, afterward put thereinto alſo the fleſh of partridge, hen or other ſuch flying fowle cut and chopt ſmall, and adde vnto theſe ſuch other matter, as you ſhall know to be neceſſarie for the preſent diſeaſe, as conſerues of roſes and bugloſſe, damaske raiſins, the powders of the electuaries of precious ſtones, aromaticum roſatum, and ſuch like thinges: and finally diſtill them after the manner aboue ſpecified. *An other reſtoratiue.*

Some there are which will not make any reſtoratiues but of capons fleſh the oldeſt they can get, ſuch they ſtrangle and plucke by feather after feather not vſing the helpe of any hot water, then they take out the entrailes and chop them ſmall: adding thereto flowers or conſerues of bugloſſe, burrage, damaske raiſings, mundified barley whole, coriander ſeed, pearles, powder of the electuarie diarrhodon, or ſome other like vnto it, and the leaues of gold, they diſtill all together and cauſe it to be giuen to ſicke perſons, women in childbed and old folke. *Another reſtoratiue.*

To make a reſtoratiue in ſhorter time and that vpon the ſudden, with leſſe coaſt, charges, as alſo paine and labour: chop your fleſh ſmall after the manner alreadie deliuered, put it into a glaſſe violl or bottle of a ſufficient bignes, and in ſuch ſort as that all your peeces of fleſh be ſtrung or put vpon a double threed and hold one by another, and the double threed whereupon they hang bee without the bottle, which muſt bee well ſtopt aboue with a linnen or cotton cloth, wet in a mixture made with whites of egges and barley flower: ſet this bottle in a caldron full of water, boyling at a ſmall fire, and there let it ſtande fower howers more or leſſe, vntill ſuch *A reſtoratiue to be made preſently.*

time

time as a good part of the flesh bee conuerted into moisture: see that the bottle stand in the water vp to the necke, and that it touch not the bottome of the caldron, and withall well stayed vp on euery side, that so it may not slippe or bend more one way than another. When the foure houres are spent, rebate the fire gently, that so the bottle also may coole by little and little, which if you should take all hote out of the water, it would breake presentlie. Afterward vnstop the bottle with warme water if you cannot well otherwise, and draw foorth the string and the flesh softly, that so the liquor may remaine alone: straine the water after the manner of hypocras, and aromatize it with sugar and cinnamom, that so it may be giuen to the sicke that are wasted. You may after this manner make restoratiues such like as you shall thinke good, either cheaper or dearer, more or lesse pleasant and dilicate, and more or lesse medicinable, as occasion may require.

The nine and sixtieth Chapter.

The manner of distilling compound waters.

Compound waters. WAters are not onely distilled, of one only or simple plant, liquor, or other matter: but also of many mixt together, and such waters are called compounded waters, by reason of the mixture of many things. These compound waters are of three sorts, some are for Physicke, othersome for sweetenes, and the other for fukes and painting, as ornaments to the bodie: we will first and before the rest speake of those which serue for medicine and Physicke.

Three sorts of common compound waters.

Sage water compounded. Sage water compounded. Take equall parts of sage and pennyroiall, stampe them in a mortar and distill them. This water taketh away the paine of the bellie, and staieth cold rheumes if it be drunke with a little quantitie of castoreum.

Turnep water compounded. Water of turneps compounded. Take turneps either garden or wilde ones, or both together, the roots of smallage and parsely, and anise seede, infuse them all in white wine or vineger, and distill the water as good against grauell.

Water of angelica compounded. Angelica water: Take equall parts of Angelica, as well the rootes as the leaues, (but especially the rootes) and the flowers of lauander, infuse them in wine, and there will distill from them a singular water against the falling sicknes, if it be taken in the quantitie of two or three spoonefuls.

Falling sicknes.

Water of celandine compound. Water of celandine: Gather in the beginning of the moneth of May the leaues of celandine, veruaine, rue, and fennell, pound them and draw from euerie one of them three ounces of iuice, which you shall mix together: put vnto them some buds of roses, of sugar candy three

three ounces, of very good Tutia foure ounces, and as much of dragons blood: diſtill them all in a ſtillitory: This water taketh away the rednes and ſpots in the eies.

Water of the vine: Take the water that diſtilleth from the vine-ſtockes at ſuch time, as they are cut, which is in the ſpring time, diſtill it with like quantitie of hony: this water healeth itchings, heate, and rednes of the eies: the very water of the vine alone vndiſtilled doth the like. *Water of the vine compound.*

Roſe water: Take roſes three parts, fennell and rue, of each one part, ſhred them ſmall and mingle them very well together, afterward diſtill them, and let the ſtiſtilling water fall into a veſſell wherein is a handfull of the foreſaid herbes, this water preſerueth the ſight, if the eies be waſhed therewith in ſummer. *Roſe water compounded.* *It preſerueth the ſight.*

Water of eiebright: Take celandine, fennell, rue, eiebright, veruaine, red roſes, of each halfe a pound, cloues and long pepper, of each two ounces: bruiſe them all and diſtill them in a glaſſe ſtillitorie.. This water is ſingular good for a weake ſight. *Eyebright water compounded.*

Water of roſemary: Take Aqua vitæ diſtilled of white wine, the diſtilled water of roſemary and ſage, of ech fiue pound, of ſugar two pound: in theſe infuſe of the flowers of ſage and roſemary for the pace of eight daies of each two ounces ſtraine them and keepe the water to heale the fiſtulaes of the eies. *Roſemary water compounded.* *Fiſtulaes of the eies.*

Water of treacle: diſtill in a glaſſe ſtillitorie treacle with a like quantitie of Aqua vitæ and vineger: This water is good to touch the vlcers and rawnes of the mouth withall, eſpecially if there be added vnto it a little bole armoniake. *Water of treacle.* *Vlcers of the mouth.*

An other treacle water: Take olde treacle a pound, of the rootes of Enula campana, gentian, cypers, tormentill, of each an ounce, of bleſſed thiſtle halfe an ounce, of conſerues of borage, bugloſſe, and roſemarie, of ech an ounce, infuſe them all together in three pintes of white wine, a pinte and a halfe of ceſterne water, and two pintes of roſe water: diſtill them. *Treacle water.*

Water of cloues: Take equall parts of cloues, ginger, and flowers of roſemarie, infuſe them in very good wine, the ſpace of eight daies, diſtill the whole: this water comforteth the ſtomacke, aſſwageth the paines and wringings of the belly, killeth wormes and maketh fat folke to become leane, or maketh fat the leane if they drinke it mixt with ſugar. *Water of cloues.* *Paine of the ſtomacke and bellie.*

Water of ſaxifrage: Take of the iuice of ſaxifrage two pound, of the iuyce of pearlewort, parſley, aniſe, and clotburre, of ech halfe a pound, of white vineger eight ounces, diſtill them all: This water drunke in the morning breaketh the ſtone. *Saxifrage water.* *The ſtone.*

Water of ſwallowes: Take ſwallowes and dry them in an oven, make them into powder: mixe it with a little caſtoreum and a little *Water of ſwallowes.*

vineger, distill it all: this water cureth the falling sickenes if it bee drunke foure mornings.

Horsetaile water.

Water of horsetaile: Take horsetaile, plantaine, red roses, winter cherrie berries, rootes of holihocks, and scraped licorice, of ech an ounce, of bole-armoniake halfe an ounce, of the seed of gourdes and coucumbers, of ech three drams, of the seede of white poppie, six drams, of the seede of quinces halfe an ounce: Infuse them all in whay made of goates milke the space of two daies, afterward distill the water: which will serue for the vlcers of the reines and bladder, if there be foure ounces of it taken warme in the morning.

Vlcers of the reines.

Corneflag water.

Water of corneflag: Take equall parts of corneflag, Isope, and southernwood, stamp them throughly, and leaue them so a certaine time, afterward distill them: this water proueketh womens termes, and killeth wormes in yoong children.

Burnet water.

Burnet water: Take the seede of burnet, parsley, smallage, the leaues and rootes of clotburre and smallage, of euery one equally: stamp all together, after put thereto of dragons blood an ounce, and a little good vineger: set all to infuse together a certaine time, afterward distill it: this water hath a meruellous vertue against the stone and grauell.

Stone. Grauell.

A singular water for the grauell, which the deceased *Monsieur de Tillet* had great vse of with happie successe: Take the rootes of parsley and fennell made very cleane and the wooddy part taken out, of ech foure handfuls, boile them in twelue pintes of riuer water: when they are halfe boild put thereto of the tender buds of mallowes, holihocks, violets, and sea weede, of ech foure handfuls, boile all together to the consumption of the halfe, after straine them through a white napkin: distill them, putting thereunto two pound of venice turpentine.

A water for the eies.

A singular water for the eies: Take celandine, veruaine, betony, eiebright, rue, and fennell all new and fresh, of ech two handfuls, stamp them together sprinkling them with halfe a pound of white wine, presse out the iuice, and afterward infuse in the same pepper and ginger made in powder, of ech halfe an ounce, of saffron three drams; of myrrhe, aloes, and sarcocol, of ech one ounce; of very good hony a pound: distill them all in a glasse stillitorie at a small fire, and keepe the water for the spots of the eies.

An imperiall water.

Take foure ounces of the pils of orenges dryed in the shadow of the sunne six daies: nutmegs, and cloues, made into powder either of them by themselues of ech foure ounces, infuse the said aromaticall powders in a glasse viole with rosewater the space of seuenteene daies in the sunne: after cast vpon the said powders, the rindes of orenges, which you shall let steepe there a certaine space of time. Afterward take of new red roses gathered two daies before a pound, of the roote of cyperus halfe a pound, of the leaues of rosemary, Isope, baline,

balme, roſes of the buſh, of ech two handfuls, of bay leaues a handfull, lay them all to dry in the ſun for two houres, after infuſe them in roſe water the ſpace of three houres: this done put them all into a ſtill after this manner. In the bottome of the ſtill make a bed of one pound of new red roſes, then next a bed of aromaticall powders and the rindes of orenges, in the third place a bed of violet flowers, and in the fourth place, the laſt and fourth bed of the afore named hearbes, diſtill them all in Maries bath with a gentle fire. Adde vnto the diſtilled water two pound of roſewater or thereabout, ſo that it may bee in proportion equall to the third or fourth part of the water drawne out by diſtillation. This water taken in the morning the weight of a dram keepeth the bodie ſound, luſtie and reneweth youth. It is ſingular for the paine of the head, teeth, belly, gripinges, palſie, conuulſions, apoplexie, faintings and other ſuch cold diſeaſes. This is the water that is ſo much eſteemed in the courtes of kinges and princes, and amongſt the great and renowmed Ladies.

An alome water.

An allom water: take veriuice, the iuice of plantaine and purſlaine, of each a pound, ſeuen whites of egs, ten ounces of roch allom, mingle them togither and diſtill them. Otherwiſe: take plantaine, purſlaine, ſorrell gourds, nightſhade, and veriuice, of each a handfull, poune them groſly, mixe therewith ten or twelue whites of egs, put them all in a glaſſe ſtillitorie to diſtill, mingling amongſt them halfe a pound of allom, as you lay bed vpon bed: this water is good for cankers, for the rednes of the face, and for vlcers, applying linnen cloaths thereunto, that haue beene wet therein.

Purging waters.

You may likewiſe diſtill purging waters, in infuſing purgatiue medicines both ſimple and compound, ſeeing that they be as new as may be and that in aqua vitæ, wine, milke, whay, diſtilled waters, or conuenient decoctions, and ſuch waters will haue like vertues as the purging medicines haue; thus you may diſtill Catholicum, Diaphœnicon, confectio Hamech, and Electuarium de ſucco roſarum: thus you may diſtill rubarbe, agaricke, hellebor, ſcammonie, and ſuch other purgatiues that are ſound and new.

Catholicum and Diaphœnicon diſtilled.

Water of rubarbe diſtilled.

The manner of diſtilling rubarbe may bee this: take a quantitie of new and greene rubarb, whether it be a pound or halfe a pound more or leſſe, make it into ſmall peeces, or make it into groſſe powder, and vpon it caſt of the iuice of burrage and bugloſſe, of each two pound, for one of rubarbe: infuſe them all togither for the ſpace of fower and twentie howres vpon hot aſhes, then diſtill them in a ſtillitorie in Maries bathe.

This diſtilling of purgatiue medicines is for ſuch people as are very delicate and cannot abide the ſmell of the purging medicine miniſtred otherwiſe.

The seuentieth Chapter.

Of sweet waters particularly described.

Sweet water. SWeet waters serue to wash the hands, face, haire of the head and the beard: as also to make linnens, garments, gloues, and such other things to smell sweet.

Lauander water. Water of lauander: take the flowers of lauander new or drie, besprinkle or infuse them in rose-water, wine, or aqua vitæ, afterward distill them. The water will be sweeter if you drie the flowers in the sun in a glasse violl close stopt & cast vpon them afterward some white wine: and if in the time of want and lacke of distilled water, you would haue a water presently made which should resemble the smell of the water of lauander, cast a drop or two of the oile of spike, into a good sufficient quantity of pure water, and swill them well together in a bottle or glasse violl with a narrow necke: this water though it be not distilled, yet it ceaseth not to haue the sweet smelling sent and sauour that the distilled hath.

Water of cloues. Water of cloues: take halfe an ounce of cloues wel bruised, set them to infuse in a pound and a halfe of rose-water the space of foure and twentie howres, after distill them in Maries bath.

The water of sweet smels. The water of sweet smels: take hasill, mints, marierome, rootes of corne-flag, hyssop, sauorie, sage, balme, lauander and rosemarie, of each a handfull: of cloues, cinnamom and nutmegs, of each halfe an ounce, three or foure citrons cut in sufficient thicke slices, infuse all this in a sufficient quantity of rose-water for the space of three daies, distilling it all afterward in Maries bathe at a small fire, the distillation done, put thereto a scruple of muske.

Rose water musked. Water of roses musked: take the buds of roses, and cutting out the white put them into the stillitorie, and in the midst thereof vpon your roses put a little knot of muske, and so distill them.

Water of spike. Water of spike: take spike before the flower be altogether blowne, and taking awaie all the wood from it, lay it on a bed within the stillitorie, after vpon that bed, a bed of roses almost blowne, and thereupon some dozen cloues: but and if you haue not spike, then put lauander in his place, distill it at a moderate fire, and with as little aire as possibly you can giue it: and when the distillation shall be as good as finished, besprinkle the matter with a little verie good white wine, and so finishing your distillation, keepe your water in viols well stopped.

Damask water. Damaske water: take two handfuls and a halfe of red roses, rosemarie flowers, lauander and spike flowers, of each a pugill, of the sprigs of thyme, flowers of cammomill, flowers of small sage, of penniroyall, and marierom, of each a handfull, infuse them all in white wine the

the ſpace of fower and twentie houres, then put them in the ſtillitory ſprinkling it with verie good white wine, and ſcatter thereupon this powder following: take an ounce and a halfe of well choſen cloues, an ounce of nutmegs, of beniouin, and ſtyrax calamita, of each two drams, make them in powder: The water that ſhall be diſtilled, muſt be kept in a veſſell verie well ſtopt.

Water of myrrhe.

There is alſo made a very ſweet water of cleere myrrhe, if it be new, gummie, and diuided into ſmall gobbets, and ſet to ſteepe in the iuice of roſes ſix times as much in quantity as the myrrhe: it muſt be diſtilled vpon hot aſhes at a ſmall fire; for and if you ſhould increaſe it, there would come forth oile with the water: ſuch water being dropt but onely one drop of it into an hundred of well or fountaine water, maketh it all to ſmell moſt ſweetly.

Roſewater ſweetned with muske.

Roſe-water ſweetned with muske: take a glaſſe veſſell of the faſhion of an vrinall, that is to ſay, wide below and ſtraight aboue; therein put twelue graines of muske or more, and ſtoppe it cloſe with good parchment, ſetting it in the ſunne for foure or fiue dayes: then take an other veſſell of the faſhion of the firſt, which you ſhall fill with roſes dried a verie little and ſtamped: ſtop that veſſell alſo with a very thin linnen cloth, or with a ſtrainer: afterward put the mouth of the veſſell, wherein the roſes be, into the mouth of the other wherein the muske is, lute them well together, and ſet them in the ſunne, in ſuch ſort as that the veſſell with the roſes may ſtand aboue that wherein the muske is, and that in ſome window or ſuch other place, where the ſunne ſhineth verie hot. And by this meanes there will a water diſtill downe vpon the muske, which wil be good either to vſe alone or mingled with ſome other. Otherwiſe: take twentie graines of muske, nutmegs, cloues, galingall, ſchænanthum, graines of paradiſe, mace, and cinnamom, of each an ounce: bray them all and put them in a ſtillitorie with a pound and a halfe of roſe water, let them ſtand ſo foure or fiue dayes, and then diſtill them.

Water of oranges.

Water of orenges: take the pilles of orenges and citrons when they are greene, of each halfe an ounce, of cloues fiue or ſixe, of the flowers of ſpike or lauander newly gathered ſixe ounces: infuſe all together in ſix pound of roſe water the ſpace of foure or fiue dayes: afterward diſtill them.

Water of naffe or orange flowers.

Water of orenge flowers: take flowers of orenges, diſtill them in a glaſſe ſtillitorie, or in an earthen one well baked and glaſed and with a ſmall fire: you may put to them the flowers of citrons if you will. The water muſt be kept in glaſſe bottles couered with fine mats and well ſtopped.

The counterfeit water of orange flowers.

The counterfeit water of orenge flowers: take the buds of red roſes, the moſt double that can be found, but take their yellow from them, make a bed thereof in the ſtillitorie, and aboue it another bed of

the flowers of lillies, after againe another of roſes, and then another of the flowers of lauander, and then another bed of roſes againe, and betwixt euerie one of theſe beds caſt and ſow ſome bruized cloues, and in the midſt of all make a little pit, in which you ſhall put certaine graines of muske, or ciuet, or ambergriſe, or ſome ſort of perfume: afterward diſtill them all at a little fire: reſerue the water in little bottles, couered with fine mats and well ſtopt.

A ſweet ſmelling water.

A ſweete ſmelling water: take marierome, thyme, lauander, roſemarie, ſmall peniroyall, red roſes, flowers of violets, gilliflowers, ſauorie, and pils of oranges: ſteepe them all in white wine, ſo much as will ſwim aboue the ſaid herbes, afterward diſtill them in a ſtillitorie twiſe or thriſe: keepe the water in bottles well ſtopt, and the droſſe or reſidence to make perfumes.

The one and ſeuentieth Chapter.

The faſhion of diſtilling water for ſukes.

A water for ſukes.

ALbeit that a good farmers wife muſt not be too buſie with ſukes and ſuch things as are for the decking and painting of the body, becauſe her care muſt wholie be imploied in the keeping and increaſe of her houſhold ſtuffe; notwithſtanding I would not haue hir ignorant of the maner of diſtilling of waters for ſukes, not that ſhe ſhould make vſe of them for hir ſelfe, but that ſhe may make ſome profit & benefit by the ſale therof, vnto great Lords & Ladies & other perſons that may attend to be curious and paint vp themſelues.

The vſes of waters for ſukes.

Now all ſuch waters in generall ſerue for three purpoſes; the one is to ſmooth and keepe neat the skin, as well of the face as of the other partes of the body. The other is to colour the haire of the head and beard: and the third to make white the teeth. Some of theſe are ſimple, as the water of the flowers of beanes, of ſtrawberries, the water of the vine, of goats milke, of aſſes milke, of whites of egs, of the flowers of lillies, of dragons, and of calues feete: others are compounded of many ingredients, as you ſhall know by the briefe collection that we ſhall make of them.

Water of ſtrawberries.

Water of ſtrawberries: Take ripe ſtrawberries, ſet them to putrifie ſome certaine time in an earthen veſſell, putting thereto a little ſalt or ſugar, afterward diſtill them: This water will cleanſe away the ſpots of the face & the ſpots of the eies cauſed either of hot or cold humours: it will be more effectuall if you infuſe the ſtrawberries in Aqua vitæ, before that you do diſtill them.

Water of beane flower.

Water of beane flowers: take the flowers of beanes, infuſe them a day or two in white wine, in a glaſſe viole in the ſun, after diſtill them: this water taketh away the ſpots of the face, if it be waſhed therewith morning and euening.

The

The rootes of great dragons diſtilled, maketh a ſingular water to take away the prints and markes which the pockes haue left behinde them: ſo doth likewiſe the diſtilled water of the roote of wilde wine, of corne flag, ſowbread, coſtmarie, angelica, elicampane, turneps, wilde cowcombers, white onions, gentian, capers, lillies, madder, alkanet, cinckefoile, crowfoote, taſell, and many other hearbes. *The water of dragons.*

Water of guaiacum: Take guaiacum and cut it in ſmall peeces, infuſe them a certaine time in the decoction of other guaiacum, and a third part of white wine, after diſtill them in a glaſſe ſtillitorie: the water that ſhall diſtill is ſingular for the taking away of all ſpots out of the face, eſpecially if you ioine with it in the diſtilling of it ſome lillie rootes. *Water of guaiacum.*

The water that is diſtilled in equall quantitie of the leaues of peaches and willowes, taketh away the red ſpots and rubies of the face. *The water of peaches and willowes.*

The water that is diſtilled in equall quantitie of the whites of egs and iuice of limons ſcoureth the face and maketh it faire: in ſteede of this water, if you haue not the fit meanes to diſtill it, you ſhall take ſeauen or eight limons or citrons, which you ſhall cut into quarters, and after infuſe them in white wine in the ſun. *Water of whites of egs.*

An other water: Take ſix ounces of the crums of white bread, infuſe them in two pound of goates or aſſes milke, mingle them diligently together, and diſtill them. *Water of crums of bread.*

Water of ſnailes: Take white ſnailes about thirtie, of goates milke two pound, of the fat of a pig or kid three ounces, of the powder of camphire a dram, diſtill them in a glaſſe ſtillitorie. *Water of ſnailes.*

Water of the whites of egs: Take the whites of new egs about twelue, fine cinnamom an ounce, and aſſes milke twelue ounces, diſtill all in a glaſſe ſtillitorie: this water maketh a woman looke gay and freſh, as if ſhe were but fifteene yeeres old. *Water of the whites of egs.*

Water of calues feete: Take the feete of a calfe, and (taking away their skin and hooues of their hoofes) cut the reſt in peeces, that is to ſay, the bones, ſinewes, and marrow, and ſo diſtill them: this water maketh the face vermillion like, and taketh away the blemiſhes of the ſmall pockes. *Water of calues feet.*

A ſingular water to make one white. Take the dung of ſmall lizards, or of the cuttle fiſh, the tartar of white wine, the ſhauing of harts horne, white corall, the flower of rice, as much of one as of an other: beate them a long time in a mortar, to make them into fine powder: afterward infuſe them a night in an equall portion of the diſtilled water of ſweete almondes, ſnailes of the vine and white mulleine: and put thereto likewiſe the like weight of white hony: diſtill all together in a ſtillitory. *A water making white.*

Water of bread crums compounded: Take the crummy part of barlie *Water of crums of bread.*

barlie bread, indifferent betwixt white & black, two pounds, of goats milke three pounds, of white wine halfe a pound, of the fowre great cold ſeedes, of each two ounces, of the flowers of beanes, or dryed beanes & ciche peaſe, of each two pound, of rice halfe a pound, of the flowers of water lillies and white roſes, of each two pugilles, the whites and yelkes of twentie egs, diſtill them all in Maries bath, and the water will be a great deale more excellent, if you put vnto the diſtillation ſome venice turpentine.

Water of the broth of a capon.

Water of the broth of a capon: Take of the broth of a capon, hen or pullet three pound, of the iuice of limons one pound, of white vineger halfe a pound, of the flowers of beanes and water lillies of each three pugils, the whites of two or three egges, the weighte of two french crownes of camphire, diſtill them all: This water is of a marueilous vertue to take away the ſpots and ſtaines of the face, and other parts of the bodie.

Water of bran.

The water of bran. Take bran the beſt that you can finde, ſift it diligently and afterward temper it with ſtrong vineger, put them into a ſtill, and caſt vpon them ten or twelue yelkes of egs, diſtill them all: This water maketh the face cleane, gliſtning and very faire.

Beautifying Waters

A ſweet water.

An other water: Take the flower of beanes and water lillies, of ech a pound, of bread crums, rice flower, flowers of corneflags, of ech ſix ounces, of hony a pound, of white wine and water of the fountaine of each three pound, let all be well mingled together and afterwarde diſtill them in Maries bath.

An other water.

Take the rootes of corneflag and wild cucumbers, of ech three pound, of the rootes of holihockes & lillies of ech two pound, of ripe grapes halfe a pound, of beane flowers and leaues of wall pellitorie, of ech a pugill, of water lillies and mallowes of ech a handfull, of the crumes of barly bread a pound, infuſe it all in white wine or in the houſehold ſtore of goats milke, putting to the infuſion halfe an ounce of the rootes of turneps, and of the ſower great cold ſeedes, an other halfe ounce, of the vrine of a little girle halfe a pound, let all be diſtilled together: This water is ſingular good to take away freckles, ſcars, the prints of the ſmall pockes, and all other ſpots of the skin.

A water to paint the face withall.

A water vſed amongſt the Ladies of the Court, to keepe a faire white and freſh in their faces. Take a white pigeon, a pinte of goates milke, foure ounces of freſh butter, foure pugils of plantaine, and as much of the rootes and leaues of Salomons ſeale, one ounce of camphire, halfe an ounce of ſugar candy, and two drams of allom: let al ſettle together and afterward diſtill it.

An other water: Take of the crums of white bread two pound: of the flowers of beanes one pound, of white roſes, the flowers of water and land lillies, of euerie one two pound, of goates milke ſix ounces, and of the flowers of corne flag an ounce, diſtill all: this water is good

to

to keepe the hands cleane and white.

Take cowes milke in the moneth of Maie (in other monethes it is not worth any thing) two pounds, foure orenges, and fiue citrons, roch allom and fine sugar, of ech an ounce, cut the orenges and citrons into small quarters, and infuse them in milk, afterward distill them all: this water is good to keepe the colour neat and fresh. *Water of cowes milke.*

Take a certaine number of egs, the newest you can get, lay them to steepe in very strong vineger three whole daies and nights, afterward pearce them with a pin, in such sort as that you may cause all the water that is within to come foorth, and distilling this water, you shall finde it excellent to beautifie the face. *Water of egs.*

Likewise to washe the face with the water of almonds, or sheepes or goates milke, or else to lay vpon the face when one goeth to sleepe, a white linnen cloth dipt in these licours, is availeable for the beautifying of the face. *A water to couloure or paint the face withall.*

An other water: Take two calues feete, boile them in riuer water to the consumption of the one halfe of the water, put thereto a pound of rice, of the crummie part of one white loafe, kneaded with goates milke, two pound of fresh butter, the whites of ten new laid egs with their shels & skins, distill it all, and in the distilled water put a little camphire & roch allom: this water maketh the face very faire.

Water of lard: Take such quantitie of lard as you shall thinke good, scrape it as cleane as possibly you can, afterward stampe it in a marble mortar, so long, as that it become like paste, and then distill it in a glasse stillitorie, the water will be white, and it is singular to make the haire of a straw colour and glistening. *The water of lard.*

Water of hony distilled, as we haue said before, maketh the haire beautifull and long. *Water of hony.*

Water of capers: take greene capers and distill them; this water dieth haire greene, if after they haue beene washed with this water, they be dried in the sunne. *Water of capers.*

An other water: take a pound of very good hony, and of the leaues of male southernwood two handfuls, mingle them & distill them: this water is good to make the haire of the head and beard faire and beautifull. *A painting and colouring water.*

A water to clense the teeth: take sage, organy, wilde marierome, rosemarie, and pennie royall, of each a handfull, of pellitorie, ginger, cloues, and nutmegs, of each the waight of two french crownes: put al togither, and water them with white wine, afterward distill them. *A water to clense the teeth.*

Another water for the same effect: take long pepper the weight of two french crownes, of pellitorie and stauesacre, the weight of one french crowne: sprinkle them all ouer with halfe an ounce of aqua vitæ, after put an ounce and a halfe of white honie thereunto, and so distill them.

The

The two and seuentith Chapter.

To distill (as it is called) per ascensum.

ALl manner of distillation, which is made by vertue and force of fire and such like heate, is of two sorts; the one is made by raising vp of vapours vp on high, which the Alchymists call *per ascensum*: and there is another which is after the manner of falling of sweat, or defluxion of humours descending downward, & this is commonly called *per descensum*. Waters are for the most part distilled by the way called *per ascensum*: as oiles are for the most part distilled *per descensum*: I say for the most part, because that certaine waters are sometimes distilled *per descensum*, as also some oiles *per ascensum*, such as are the oiles drawne of leaues, flowers, fruites, seede, and other such like matter.

What manner of oiles are distilled per descensum.

The waters that are distilled *per descensum*, are chiefly sweete waters, such as are made of flowers and leaues of a good smell, which being so distilled, do not euaporate or spend their best vapour so quickly by distillation, and thereupon they retaine in better sort and for a longer time their naturall smell.

Rose water distilled per descensum.

The way is this: take new roses, or other such flowers, put them in a linnen cloth, spred and stretcht ouer a bason of brasse or earth well glased, aboue this bason set another vessell of brasse or of earth in manner of a round frying pan, hauing the bottome couered with hot coales, but therewithall you must looke that you let not the fire remaine any long time vpon the vessell for feare it should grow too hot, and that the water should smell of burning: this way is better then any other to make a great deale of water in a short time, and without great charges, of flowers and all sweete smelling, cooling, and astringent matter.

The sea onion distilled per descensum.

After such sort is the sea onion distilled: cut in slices the sea onion, put it into an earthen vessell which shall haue many small holes in the bottome: let the bottome of this vessell go into the mouth of an other vessell made of earth, and lute them both together very wel, and let the earthen vessell be set in the earth vp vnto the throat, and then lay it rounde about with coales of fire, thus giue fire vnto the vpper vessell for the space of tenne or twelue howers, it will distill his water downward, which if you mixe with flowre or bread, you shall make

To kill rats and myse.

pastils, which will be good to kill rates or mise, and that quickly if you mixe therewith a small quantitie of litarge.

Another manner of distilling waters per descensum and that without heat.

You may make your distillation of flowers *per descensum*, otherwise without the heate of any fire: take two vessels of glasse, one like vnto another, both of them being made large in the bottome, and narrowe at the top (after the manner of an vrinall) see that the mouth of the one wil fit and go into the mouth of the other, and then lute them well

and

and close together, hauing put betwixt them a fine thinne linnen cloth: the vppermost must be full of roses or other flowers somewhat bruised, the other must be emptie: set them in the South sunne where it is verie hot, and so it will distill a water that is very pleasant and sweete.

Thus is rose water (sweetned with muske) distilled, wereof we haue spoken before in the chapter of sweet waters: and thus are the yellow parts of violets distilled, and the water thereof is very singular for the rednes of the eies: and thus are the tender buds and shoots of fennell distilled, being gathered before the fennell do put foorth his flowers: the water whereof is very soueraigne for to clense away the filth of the eies, and to comfort and amend the sight. *Water of the yellow parts of violets.*

The three and seuentieth Chapter.

Of the manner of distilling by the filtre.

WE haue before declared the causes of distilling by the filtre, as namely, that they are either the separation of licours in generall, or else the separation of liquors, of such or such qualities, as the separating of muddie and earthie from the finer and subtile parts, which is the proper and ordinarie way to distill iuices, which haue a thicke consistence presently vpon their cooling after their first pressing out, as namely the iuices of citrons, limons, and orenges: againe, the prudent and expert apothecary when hee maketh syrups of the iuices of citron, or limons, doth first distill and straine the iuices by a filtre, before hee goe about to dispence the syrups. *To distill by the filtre.*

But the manner to distill by a filtre, is to haue three dishes, bowles, or basons, or other vessels, of such fashion as the matter or liquor that you would distill doth require, and so placed and seated as that they may either stande higher and higher, or lower and lower euery one aboue or vnder another, and the highest to containe that which is to be distilled, and the lower that which is distilled. In the vppermost shall bee one or moe peeces of cloth, or of a felt of sufficient length, and dipt into the iuices, and these must bee broad at the one end, and sharpe at the other: the broade end shall lie in the iuice, and the narrow pointed end shall hang without, by the which the thinner part of the liquor shall rise and ascend, running downe drop after drop into the vessel below, in such sort as that the muddiest and impurest part shall stay behinde in the other vessell: and sometime you must wring out this peece of cloth when it beginneth to become blacke, or that the drop distill but slowly, because of the thicke matter that is carried into it along with the thinne, and hauing washed them to put them afterward againe into the vessell. If a man bee disposed to distill

distill one liquor many times, hee may place many vessels after the manner of staires, and in euery one of them except the lowest put a filtre, in the same sort as we haue sayed, for the last and lowest must serue only to receiue from all the rest.

In stead of a piece of felt the apothecaries vse often times sleeues of woollen cloth, otherwise called sharpe pointed hose; thorow which they purifie and make cleere their sirups, apozemes, and iuleps: these manners of distillations may supply the place of that long, tedious, and painfull circular distillation, which fitteth the Alcumists better, than either countrey people, physicians, or apothecaries.

Virgins milke. Virgins milke is thus made with a filtre; take litarge of golde made into powder three ounces, infuse them in six ounces of white vineger either raw or distilled, or else in squils vineger the space of three howres in a vessell by it selfe: in another vessell set likewise to infuse *sal nitrum*, or common salt in common water, or in water of plantaine, nightshade, or some other fit for the purpose: distill them by filtre, each of them apart, and after that they be distilled, mingle them togither. This virgins milke is good to heale ringwormes, and saucie and red faces.

A briefe discourse of the distilling of oiles and quintessences.

The fower and seuentieth Chapter.

Of the profit of distilled oiles and quintessences, and what manner of quintessences shall be heere intreated of.

AFter our short discourse of the distilling of waters, limited by the matter which farmers store will affoord, it shall not seeme strange or wandring from our scope and platforme laid downe already, to make some sleight and briefe description of the distilling of oiles, to serue as a patterne and guide to the mistresse or good wife of our countrie farme, seeing we are desirous to haue her qualified with all those good partes and vertues, which *Zenophon* the Greeke Authour doth so highlie esteeme of and commend in a good huswife: and namelie, that of readinesse and charitable prouision to relieue her folke and familie, as also hir neighbours, when the case of necessitie through sickenesse requireth, by such remedies as her gardens or orchards may minister vnto her, with the helpe of a little ordering of them, which shee by her skill and knowledge may bestow vpon them. And seeing that distilled oiles, amongst other remedies, are found by experience the most forcible and effectuall, the pleasantest and of most speedie operation, in the ouercomming of all sorts

ſortes of rebellious diſeaſes, but chiefly, woundes, vlcers, aches, ſwellings, and other outwarde accidents, it ſhall bee verie commendable and beſeeming for the farmers wife or miſtreſſe of our countrie farme to haue ſight into this kinde of diſtillation: not that I would haue her to buſie her braine about the matter much, or otherwiſe frequent and accuſtome it, then as a pleaſure and recreation, and ſo far foorth as the matter of her gardens and orchards only or not much more do miniſter vnto her. For as for the diſtilling of mettals, minerals, ſtones, and other ſuch things which are not gouerned and husbanded with mans handie worke, labour or skill, they belong rather vnto the Alchymiſt & extractour of quinteſſences, or other idle or rich perſons, then vnto a good husbandman. Now the things that ſhe may extract and diſtill after the manner of quinteſſences are theſe. Of herbes: roſemarie, wilde thyme, rue, calament, organy, lauander, cammomil, ſage, hyſſop, baſill, ſmallage, mints, ſtœchados, ſauorie, wormwood, louage, thyme, peniroyal of the mountain, iua arthritica, ſauine, and generally all herbes, which are of a hot and drie temperature, and which haue a good and ſtrong ſmell. *Herbes.*

Of ſeedes: fennell, aniſe, cumin, perſley of the mountaine, dill, zantonicum or wormeſeed, black and white nigella, ſauine, blacke poppie, wild carret, and many other ſeeds which are of good or ſtrong ſauour and ſmell. *Seedes.*

Of flowers: lauander, white mullein, hypericon, flowers of orenges, damaske roſes, Ieſamin flowers, and roſemarie flowers, &c. *Flowers.*

Fruits: iuniper, bay, and iuie berries, pine kernels, capers, abricots and peaches, &c. *Fruits.*

Spices: cinnamom, black pepper, cloues, mace, ſweete coſtus, angelica, imperatoria, galanga, graines of paradiſe, nutmegs, ginger, cubebs, cypres, rindes of orenges and citrons, pillings of walnuts and of capers, and many other. *Spices.*

Woods, and barkes of woods: roſemarie, ſauine buſh, iuniper, aſhe, guaiacum, elder, the loppings and ſlifts of trees. *Woods.*

Gummes and thicke liquors maſticke, frankincenſe, myrrhe, beniouin, labdanum, turpentine, ſtarax calamite, pitch, tarre, &c. *Gummes.*

Beaſts, or the parts, or excrements of beaſts: ſerpents, frogs, ſcorpions, ants, mans bloud, mans dung, gooſe greaſe, egges, honie, waxe. *Beaſts or the parts of beaſts*

To be briefe, all things that are of a hot and drie temperature. It is true that of cold things, ſuch as are the herbe and ſeed of poppie, henbane, and other ſuch: or of moiſt things, ſuch as thoſe are which haue a fat iuice, one may in ſome manner draw an oylie quinteſſence, but not without great paines taking and in a long time, and ſuch alſo which in the end, will not haue the naturall and true force of the herb, whereof it was made, for it will be either leſſe cold or leſſe moiſt then his ſimple, by reaſon of the impreſſion of the heat, and drynes ſuch as

it

it is, which the fire hath left it in the time of the diſtillation; as alſo for that the oile which is gathered of cold or moiſt ſimples, is rather a watery eager, ſaltpeterlike or ſalt liquor, then an oylie ſubſtance: wherefore it is better to diſtill cold or moiſt ſimples by putrefaction, then by reſolution made by the worke of the fire. To make an ende therefore in a word, the oyles drawne of things by quinteſſence, or reſolution made by force of fire, are an vnctuoſitie, or radical humour, which is as it were the life and forme that giueth being vnto the ſimple, whereto it belongeth, and that no otherwiſe then the naturall forme giueth being vnto all particular things: and wherein lyeth the principall force and vertue of the ſimple: ſo as that if it be once ſeparated by diſtillation, there remaineth no other thing of the ſubſtance of the ſimple that is diſtilled, but onely his lees, earth, and impurities.

which be the diſtilled oiles.

The fiue and ſeuentieth Chapter.

What manner of furnaces muſt be made for the extracting of Chymicall oyles.

THE furnaces which ſerue to diſtill Chymicall oyles are of diuers faſhions, according to the diuerſitie as well of the matter which is to be diſtilled; as of the veſſels which are to ſerue to diſtill them withall: and yet the moſt common and commodious or profitable faſhion is this. Build vp a furnace of bricke or of tyle and fat earth or mortar, or of plaiſter alone, of a round ſhape (at the leaſt within) to the end that the fire carried on high, may diſperſe it ſelfe all ouer in a more equall meaſure, of a reaſonable length and thickneſs, & not more then three foot high: and bearing a foot round of compaſſe and euerie way within at the leaſt. There ſhall be three ſeuerall ſpaces or roomes in the whole height, the firſt of one foote, the ſecond of a foote and a halfe, and in the third all the reſt of the furnace. In the firſt roome there ſhall be a grate of iron to lay the coales vpon for the making of the fire: in the ſecond roome or loft, there ſhall be two rods of iron, diſtant the one from the other about fower fingers, whereupon ſhall reſt an earthen veſſell of the faſhion of an earthen pot or pan, and after ſuch forme and manner as we will declare by and by: vnderneath the firſt diſtance, and alſo aboue the grate in the ſecond diſtance, you muſt make two opening places, ſquare, and hauing their couers to ſhut them after the manner of the mouth of an ouen: by the lower of thoſe two mouthes you ſhall emptie out the aſhes, and at the higher you ſhall put in coales and kindle the fire. Furthermore in the higheſt part of the furnace, and in ſuch place there as may be moſt commodious, there muſt be left certaine other holes, for the ſmoake to paſſe out by: See the picture and draught of ſuch a furnace before in the diſtillation of waters. Sometimes for a need the furnace

is omitted and let passe, and a brandrith made to serue setting vpon it the vessel for to distill in, & that in a pot, bowle or pan of earth or iron, and making a fire vnderneath it.

The sixe and seuentieth Chapter.

What manner of vessels must be vsed for the distilling of oiles.

I Know verie wel that many do vse diuers vessels, for the distilling of oiles; but leauing the examination of this variety for such as propound vnto themselues to entreat exactly of chymicall matters, as intending my selfe, only to giue some instructions vnto the good huswife commaundresse of this our countrie house, I will set downe but two sorts of vessels for the distilling of oiles. The one fit and very conuenient to distill herbs, flowres, seeds, fruits, roots, and beasts, or parts and excrements of beasts. And the other for woods, gums, gummy drops, and other thicke and vnctuous liquors. And now for to speake of the first. *Two sorts of vessels for the distilling of oiles.*

Let there be made a vessell of very choise earth, such as is verie cleane and verie well knodden, made vp with like paine and industry as the potters make vp theirs; let it be of the thickenesse of a finger or thereabout, fashioned like an egge, and yet not like an egge when it is whole, but when it is cut round awaie almost to the one halfe: it must bee great and containing much after the greatnes and widenes of the copper vessell: & yet notwithstanding so great only (especially in respect of his hight) as that it may agree with the third and last loft of the furnace, & the widenes euen & iump with the mouth of the furnace wherein it must stand: and in like maner the bottome must beare such breadth, as that it maie be a little flatter then the space betwixt the two rods of iron made fast and set ouerthwart, at the end of the second distance of the furnace, to the ende that it may rest vpon them the more firmely. And therefore to do well, the furnace would be builded before that the vessell be made. When there is need of a great fire to distill withall, it is prouided that the pot in this place be not of earth but of iron: as I my selfe haue seene at the Apothecaries.

This second vessel shall be of copper or of latten, shaped also like an egge or a gourd, hauing a wide mouth, whereunto there must be fitted a long or stretched out necke, at the least a foote length comming downe from the head, by the which necke the vapours in the

gourd

gourd ſhall riſe vp into the ſaid head. This veſſell ſhall hold twelue or fifteen pints, or otherwiſe ſhall be made of greatnes anſwerable to the quantitie of the matter which you meane to diſtill, which generally is (as wee will declare by and by) that for euery pound of matter, as of hearbes or ſeedes, &c. there bee put in this veſſell nine or ten pound of water: Beſides this there muſt bee ſuch an agreement betwixt the greatnes of this copper veſſell and capacitie of the earthen veſſell, which ſtandeth within the furnace, as that they may be free one of an other ſome two or three fingers, for the filling in of ſand, as wee will hereafter declare: and as concerning height; it, together with his head, muſt ſtand aboue that of earth, a foote and a halfe at the leaſt.

The head. The third veſſell ſhall bee the head, which ſhall bee round aboue and not ſharp pointed, to the ende that the vapour may not fall downe againe: and it muſt bee ſet about as it were with a little ſtand or tub, wherein muſt bee put coole water, for the eaſier thickning and fixing of the vapours: at the one ſide of this little tub ſhall be a ſpout or pipe which ſhall come out of the head, and by this the oile ſhal drop downe into the veſſell receiuing: on the otherſide of this little ſtand muſt bee a tap with a ſpigot, and it muſt come from the capacitie of the ſame, that ſo it may emptie it of the water it holdeth when it is become too hot: This head ſhal be ioyned with the orifice & throte of the laſt aforenamed veſſell, by the meanes of a large & wide pipe which ſhall come downe from the head, and ſet it ſelf in the mouth & throat of the ſaid copper veſſell very cloſly, to the end that no vapours in riſing may paſſe out thereby: and for the better perfecting of this inarticulation, there are two edges or brims, that ſo they may the better ioine together. This ſhanke may be called the necke of the bladder, by which the vapours ſhall riſe vp into the head.

The fourth veſſell ſhall be the receiuing veſſell which ſhall receiue the oile diſtilled, and it muſt be of glaſſe becauſe of the cleareneſſe and cleanneſſe of the ſame.

This is the proportion and ſhape of the firſt ſort of the veſſels, and it is to diſtill oiles of herbes, ſeeds, flowers, and ſo foorth.

A Doth repreſent the bladder containing the matter from which you meane to draw your oile.

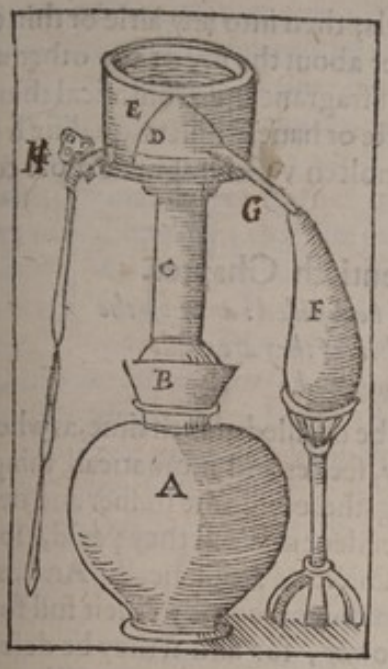
B The mouth or throt of the bladder, which is articulated or cloſe ioined with the ſhanke that commeth downe from the head.

C Is the ſhanke which muſt be a foot long at the leaſt, and is otherwiſe called the necke of the ſtillitorie, which ſetteth it ſelfe as into a ioint vpon the mouth and throate of the bladder.

D The round head not ſharpe pointed aboue.

E The little ſtand or tub which compaſſeth the head, and containeth cold water for the cooling of the head.

F The veſſell which receiueth the oile and is made ſomewhat long.



G The ſpout or pipe by which the oylie licour droppeth downe into the receiuing veſſell.

H The tap, which with his ſpigot emptieth the water out of the little tub when it is too hot, that ſo there may freſh and cold be put in his place.

The two diſtilling veſſels, that is to ſay, the gourd and head, foraſmuch as they are of copper or latten, muſt be tinned within, to the ende that the oile may not get any ſtrange qualitie by theſe mettals, ſeeing eſpecially that the copper being heated and not tinned may cauſe the oile to ſmel of the braſſe or of ſome other euill qualitie: It is true that beſides the helpe comming by this tinning of the veſſels, the very action of the fire which worketh & diſpatcheth ſpeedily and violently where as there is great quantitie of water, doth keepe the oile from being tainted with any euill ſmell, or other accident that is not naturall, and therefore there needes no feare to be taken for the vſing of copper veſſels in the diſtilling of oiles for the occaſions aforeſaid, although that earthen or glaſſe veſſels would be far better and more naturall, (ſeeing in them there reſteth no iote of metallike matter) than either thoſe that are of copper, or molten, or of any other mettall, ſaue onely, there is ſome danger of breaking or cracking of them, being the things whereunto earthen and glaſſe veſſell are very ſubiect when they are hot, yea though they were armed with mortar, fat earth, cement, or any other manner of defence: and then ſuch breach or cracke proueth a matter of no ſmall dammage or conſequence in the diſtillation of oiles eſpecially thoſe which are pretious. Notwithſtanding it is free for euery man to vſe veſſels of earth or glaſſe, vpon paine that they be carefull to keepe them that they neither cracke nor breake, and the rather ſeeing that in the extracting of ſome oiles there muſt needes be vſed glaſſe veſſels, or earthen ones, verniſhed and leaded, and not copper or latten: as which will very hardly let run any oiles from things that conſiſt of an eager taſte, whether it be that the copper hath the like it ſelfe, or of ſome ſecret vertue & faculty which is in it. And this thing we ſee ſufficiently tried in the ſeedes of grapes, whoſe oile conuerteth and turneth

The gourd and the head.

rather into a greene ruſt in ſuch veſſels, then into any airie or thin exhalation, do a man what he can either about the fire or any other way whatſoeuer: but in the diſtillation of fragrant and aromatical things, as alſo thoſe which are ſweete in taſte or haue a diuers qualitie from the copper, it might ſeeme that a molten veſſel might be more conuenient.

The ſeuen and ſeuentieth Chapter.

At what time oiles would be diſtilled: and how the matter and things whereof they are made muſt be prepared.

THe matter of euerie oile is to be diſtilled at ſuch time, as when it is beſt diſpoſed: that is to ſay, ſeedes and aromaticall thinges, when they are freſh and new gathered: for the freſher and newer that they are, ſo much the more excellent oile will they yeeld, eſpeciallie the things that are of a ſweete ſmell and aromaticall. And as for herbes, they muſt be gathered when they are come to their full force, that is to ſay, when they are in flower, for and if they be deferred longer, the oile that commeth of them, for the moſt part will be more full of ſcum and ranke, as alſo there will not ſo much be gathered of them. Being gathered at ſuch time, they muſt be dried in the ſhadow for the ſpace of a moneth or two, to the end that ſome portion of their moiſtnes and feeding humour may be diminiſhed & taken away, and that the oily & radical humour may be extracted more pure and ſyncere, and thirdly, that the herbes themſelues may be the more eaſily cruſhed and bruiſed: But on the contrarie ſide, if the herbs be new & freſh gathered when they are diſtilled, they will yeeld ſufficient ſtore of oile, in as much as their naturall moiſture will abound, but the oile will not be of ſuch efficacie, nor yet ſo odoriferous, as when the merry and good meane betwixt both is kept.

The preparing of the matter.

But as concerning the preparing of ſuch matter, as you meane to make your oiles of, there is not any neede to vſe infuſion or putrefaction, as is done in the diſtilling of waters, as we haue ſaid before. For if one ſhould beſtow an infuſion vpon them, either in water, wine, or Aqua vitæ, it would but breed a confuſion and mixture of the naturall ſauour and ſmell of the oile with that of the licour: and againe it would make them more moiſt than neede would require, in reſpect of the pure and ſyncere extracting of the oile. Againe, if you ſhould take the way to putrifie them in horſe dung, earth, hot aſhes, or boyling water, the better to diſtill and draw out your oile afterward, and following the way that we will ſpeake of by and by, yet thereby you ſhall giue occaſion of infecting your oile with ſome ill vice. For the matter being putrified it is not poſſible but that the oiles ſhould haue a ſmatch of it, ſeeing it is one part of the matter. That it ſo falleth

leth out with oiles that are so distilled of matter aforehand so putrified, although it doe not by and by corrupt, appeareth sufficientlie, for in some space of time it is without all doubt corrupted, and that in a great deale shorter time without cõparison, then other oiles which are drawne without putrefaction of their matter going before: by which it may appeere what my aduise and counsalie would be to euery man, namely; that the matter whereout you woulde extract your oile, be not infused or putrified, but only crushed, brused, braied, and brought into small peeces, so as that afterward they may be sifted through some wide sieue, which course shall do as well, yea rather better then your infusing or putrifying of them without stamping, braying and brusing of them, besides that the busines is sooner dispatched, yea, and if you would infuse and putrifie the matter, you shoulde not thereby gaine three drops of oile more, than you should haue by only beating and stamping of them.

The eight and seuentieth Chapter.

Of the manner and order that must be kept in distilling of oiles.

WHen you haue prepared the matter whereof you meane to make your oile, that is to say bruised it, and brought it into small cornes, then passe it grossie through a searce casting it into the vessell of copper with certaine measures of fountaine water, that is to say, to match two pound weight of matter with eighteene pound of water, and for that cause it is meete that the vessell should contayne betwixt twelue and fifteene pintes, and yet the thirde part remaine void and empty, when the water and matter are both in. This water standeth in steed of a coach or waggon vnto the matter to be distilled, for the carying vp of his vapours, and to separate the humours by the decoction and boiling that it there maketh. You may adde or diminish of the quantitie of water, according to the matter his quantitie which you are about to distill, vpon paine notwithstanding that you put in nine or ten times as much water as you doe matter, & that your vessell of copper, glasse, earth, or any such matter as shall seeme best, be of bignesse, proportionable and agreeing with the quantitie of matter which you woulde distill, for being too great or too little, it would proone but cost cast away. It is true that the two pound of matter, and eighteene of water heere mentioned, is the most certaine rate that we can sticke to, for the most easie and plentifull manner of drawing of oile: for if you put in more, the longnes of time will become tedious: and if you put in lesse you shall hardly draw ten drops of oile. And yet in this point lady experience must bee more than quarter master, in as much as there is some matter which yeel-

deth not any oile except it be put in a great quantitie, ſuch as is aniſe ſeede and others, as we will declare heereafter more particularlie. Againe, you muſt obſerue and marke this one point, that herbes require a farre larger veſſell and quantitie of water then ſeedes and ſpices when their oile is to be extracted: bicauſe that weight for weight they take more roome then the ſeedes and ſpices doe: for herbes lie not ſo cloſe and round togither, and therefore they require alſo in proportion a greater quantitie of water, for feare that they ſhoulde become parched and dried away within the copper veſſell.

After that you haue put the water and matter togither into the veſſell of copper, let them infuſe fiue or ſixe howres, more or leſſe according to the nature and ſubſtance of the matter: or without infuſing of them at this time (foraſmuch as their boiling within the bellie of the veſſell, will ſerue in ſteeed of an infuſion vnto the matter) couer the veſſell, and fit the head vnto it, lute them verie well together with whites of egs and meale kneaded together and ſpread vpon a cloth in the place of their ioining and articulation. This done, ſet your earthen veſſell in the furnace vpon the two iron bars, and make it faſt to the furnace with potters claie or cement well beaten and wrought about the edges and brims: after ſet the veſſell of copper well ſtopt into the earthen one, and yet in ſuch ſort, as that the bottome of the one ſtand from the other ſome two or three fingers: and this voide ſpace muſt be fild vp with pure and cleane ſand, euen ſo high as there is any ſpace and diſtance betwixt veſſel and veſſell, yea, and further if one bee ſo diſpoſed euen to the necke of the copper veſſell: prouided that the noſe of the head by which the oile deſcendeth do ſtand either to the right hand or to the left of the fornace: and yet this one thing commeth heere to bee marked, that in diſtilling of aromaticall ſeedes onely there is vſe and neede of the ſaide ſande betwixt the ſaide two veſſels, and not in diſtilling of hearbes: for ſeedes and ſpices are of a more ſubtile and delicate ſubſtance (as their great heat and drines do teſtifie) & the matter that they yeeld is more delicate alſo and firme. For which cauſes it might fall out that the force of the fire might ſomwhat trouble their diſtillation, that is to ſay, might cauſe their diſtillation to come foorth a little troubled, and that euen in the very beginning if the fire be not moderately kept, and brideled by the ſand put in the voide place betwixt the ſaide two veſſels: but in the diſtilling of herbes you muſt fit the veſſell of copper & the furnace together without the earthen veſſell & the ſand in the emptie ſpace: for as much as the therbes in reſpect of their ſolidenes and harder ſubſtance do craue a greater force of fire: whereof you may gather, that no oiles can be extracted by diſtillation in Maries bath, that is to ſay, in ſetting of boiling water about the copper veſſell in a caldron: for ſo the diſtillation would be longer then it were meete it ſhould, and yet neuer a whit

No oile can be drawen in maries bath.

the

the more commendable: for Maries bath, that is to say, boyling water, doth not affoord a well proportioned and sufficient tempered heate, but is long in dooing, and the oile doth stil draw vnto it some corruption if the worke be too long in doing, especially if the matter be not moist of it selfe: for thereupon and by that meanes can the oile hardly rise so high as that it may finde the way into the vessell that should receiue it, and because also that it wanteth force and might in as much as the boiling water cannot lift it vp so high of it selfe alone, as the cleere fire, earthen vessell, and sand; all working together.

The order that must be kept in distillation.

The copper vessell being thus fitted in the furnace, make fast vnto the nose or pipe thereof, the receiuing vessell, rested vpon some pretie stoole, in such sort as you see aboue in the figure: stop and close vp the ioint of the said pipe and receiuing vessell with paste, and bole armonicake, or the white of an egge and flowre spread vpon a cloth. Then kindle your coales that you haue laid vpon the grate, and make a soft and gentle fire for the beginning, to the ende that the matter may growe hot by little and little, and that so long as till the matter within the copper and the fountaine water do boile, but yet so gentlie as that it boile not vp, to strike & hit against the head with the walmes thereof, as wee see it sometimes to happen in some seedes, as anise seedes, which by reason of their thinne substance, as also of their viscositie, do cast vp their walmes and billowes with great might and force, and in such case the fire must be rebated: or & if that yet the rebating of the fire cannot stay the furie of the billowes or boiling, then you must take off the head, and with a staffe stirre about the matter, for so the scum will vanish away in vapours, and after that it may be gouerned, staid, and dried vp by a reasonable fire, putting the head vpon it againe afterward, and luting it as before. Feede and continue the fire in an equall degree, vntill you perceiue by feeling, that the head of the still is growne hot: then, or sooner if you please, you may fill the little tub at the top, which standeth round about the head with colde water; for it cooling the head, will make thicke and fixe the vapours and spirites of the oile, which are very subtile and hot, and turne them into oile: when this colde water thus powred in shall become hot, it must by and by be let out at the top of the cooler, and fresh put into his place. It is true that some do not allow of cooling the head with cold water, because the vapours by this cooling of the head doe congeale too soone, as being before that they come into the pipe, and thereupon fall backe againe into the vessell, from whence they breathing the second time, & congealed & falling backe againe as before, do in fine by these manifold risings and fallings, spend and waste vnto nothing; or at the least by continuall boiling, it falleth out that but a fewe vapours doe come into the vessell of receipt, and againe those same vapours so congealed do not easily and presently come foorth,

and so there is lesse oile gathered of the matter then would be, and that which is drawne, is somewhat tainted with burning. And therefore in steede of this cooling of the head for to congeale and fixe the vapoures raised vp thereinto, they set very neere vnto the furnace a vessell with one bottome, hauing a pipe of tinne passing ouerthwart the said bottome through holes bored sloping in the same vessell: and this pipe is shut vp into the pipe comming downe from the head, and both these being well luted together, then the foresaid pipe crossing through the vessell aforesaid, is fastned to the vessell that is to receiue the distilled oile: this foresaid vessell hauing this pipe passing through the sides thereof and close fastned therein, must be filled with coole water, by the cooling whereof the vapoures sent or caried from the head in this pipe of tinne are congealed, fixed, turned into oile, and so drop downe easily into the receiuing vessell with greater profit, and in greater quantitie and better, then and if they had beene turned into oyle in the head by the cooling thereof with cold water. Who so is minded to vse this meanes of cooling the vapoures may doe it, but notwithstanding that former of ours is no lesse beneficiall, commodious and profitable, neither doth it worke that discommoditie afore charged vpon it, as experience teacheth; and put case that it did so, yet the inconuenience is taken away, if in steed of cold water you put in that which is warme, or else by onely couering the round of the head with cloathes dipt in cold water vsing to renew them oftentimes.

The signes of the distillation ended.

Continue in this sort your distillation without ceasing and keepe your fire in the same degree, or if need be augment and make it greater vntill such time as all the vapours be congealed one after another, and that all the liquor which carrieth them, and which is within the copper vessell be runned into the receiuer: the signe and marke whereof is, when hauing put in eighteene pound of water or thereabout, you haue receiued backe about tenne, as also when as the drops distilling shall not any longer relish any thing of the matter: then you must giue ouer your distillation for feare the matter within your copper vessell should either be inflamed or else set fast to the bottome of your vessell ceasing to flote aboue. It shall be iudged to distill in good sort and order, and in reasonable temper, if betwixt the drops distilling, there be not as it were any space from the falling of one drop to the following of an other, in so much as that a man shall hardlie be able to account the number of one or two, and from hence (as before) is gathered the quantitie and force of the fire. By this meanes the whole copper vessell is emptied in a short time, for very seldome is it longer in doing then sixe or seuen howres if the matter agree in heauines and weight with the water of the vessell, as from two pound of matter to eighteene pound of water.

You must note in this place that the oile commeth forth now & then

with the water; and that the water which distilleth with the oile, commeth not onely of the simple, but also of the water which was put in for the vse of the distillation: which, by the force of the boiling which it hath had with the said simple during the time of the distillation is become mixt by the force of the fire with the braied matter: and so hath brought along with it the whole strength of the same, as may be iudged by the smell and tast thereof, being no other than that of the simple. Wherefore this water which distilleth oile therewith, is not lesse effectuall, yea rather more forcible, powerfull, and of better effect, than that which is distilled of simples by a stillitorie, because it tasteth more strongly of the simple, than the others which were drawn by a stillitorie. Betwixt which there is no other difference but that the water distilled by a lembecke or stillitorie is that which (the sunne heating the earth) hath brought in for the growth, nourishment, and nature of the simple: and the other which is mixed with the simple, from which the oile is drawne is so deeply ingaged, incorporated and mingled in and with the braied matter by the force of the fire: as that it carrieth away, obtaineth and holdeth all his vertue, as the taste and smell do shew which is in it, for both the smell and taste do draw very neere vnto that which the oile hath in it selfe, howsoeuer it may seem that the oile should containe and keepe all the sauour and smell vnto it selfe, seeing the oile is as it were the soule and forme which giueth being to the said simple: but in the vehement boyling of the said simple and water, there is such a great dissolution and relaxation of the dissimilar parts of the said simple, as that the smell and taste thereof is communicated with both, so that as well the water as the oile doth retaine (though yet not equally) the taste and smell of the simple. Furthermore, you shall be assured how this water hath seazed vpon the vertue of the simple, wherewith it hath beene mixt in the distilling of his oile, by this, that if you would distill it once againe or many times, you shall find collected and gathered together in it the whole smell and tast of his simple, as it falleth out in aqua vitæ, which hath in it the force of a great quantitie of wine. For the doing of this make cleane the copper vessell, powre in thereto all the water which was distilled with the oile, dispose and set in order all things necessarie, in such sort as is woont to be done in the distillation of oiles of herbs: when you see that of seuenteene pound you haue receiued one, that is to say, the first running, that you must keepe: for into it will be gathered all the vertue of the whole matter, and so as that the vertue of it will be little lesse than that of the oile.

A comparison betwixt the water of the simple and the water vsed in the distilling of the simple.

To distill already distilled water.

The nine and seuentieth Chapter.

Of the meanes how to separate the oyle which is runned with the water in distilling.

IT is verie certaine that the oyle which shall haue beene distilled, is a liquor which by the meanes and force of the boyling water wherewith it is mingled, hath beene separated and forcibly drawne from his matter, and held of the same, and with it also conueighed along into the receiuer. And for this cause the oyle will be alwaies with the water, but notwithstanding not alwaies swimming vpon the water: for sometimes it will be in the bottome, and sometimes mingled all amongst the water: if the oyle be more heauie measure for measure then the water, it will be in the bottome: but if it fall out that the oyle by coldnesse be congealed as it were into cloudes and small tufts of wooll, then it will be mingled amongst the water. Againe, the oyle will go to the bottome, if it be made of a thick substance and well compact as is that of cinamom, cloues, and other such like. The oiles which confusedy (for the time that they are congealing through the cold) goe crosse the water, are the oyles of anise and fennell seede, and that by reason of a certaine proportion which they haue with the weight of the water. Therefore for the separating of the oyle which the water hath caried along with it, it were good, first that the receiuer should haue his bottome somewhat sharpe pointed, and that in the said bottome therewithall there should be a small hole, which hauing beene stopped during the time of the distillation with waxe or cement, should now after the distillation (the water and oyle being growne cold by the operation of the aire) be vnstopped, if so be that after attentiue beholding of the receiuer, it appeare that the oile is gathered into the bottome of it: for so the cement, or waxe taken away the oile will come out and the water staie behind in the vessell, if by stopping the hole in time it be your mind to keepe it there. If the oile swim aloft vpon the water, if you vnstop the foresaide hole in the bottome the water will run out below, and the oile will stay behind in the receiuer, if by mishap it doe not fall downe into the bottome of the receiuer first, before it come into the violl prepared for it, but this you must take heede vnto: but and if the oile be mingled amongst the water in manner of a cloud, straine the water through a fine linnen cloth, which afterward will be easily gathered together with a knife, in such sort as that you may put it vp in a violl, wherein afterward if need be, you may turne it into a thinne liquor by a small heat being set in the sunne, or vpon hot ashes: if the oile swim vpon the vpper face of the water, you shall separate it in a furnace of digestion with a siluer spoone: you may also vse other meanes to separate your oile from

from his fellow water, as for example, by a funnell of glaſſe, putting your finger toward the point of it and vnderneath, and doing the like oftentimes vnto that, which hath beene done by the receiuer, that is to ſay, by powring of liquor into the ſaide funnell. You may likewiſe doe the ſame by the ſucking of the water out of the receiuer; for ſo you may ſucke out all the water and leaue the oile in the bottome, hhich ſucking may bee performed by pipes of plate made after the faſhion of thoſe which you ſee pictured here: which will draw all the water in a ſhort time out of the receiuer, as you ſee them vſed in Fraunce, to cauſe water to runne in manner of a fountaine, out of any bucket or other veſſell wherein water is contained.

The eightith Chapter.

Of the faculties or properties, continuance, and vſe of diſtilled oyles.

SEeing that diſtilled oyles, as wee haue before declared, are the radicall humour of euery matter: and that ſuch radicall humour, is as it were the ſoule and forme, which giueth being vnto all matter, and whereupon depend the vertues, powers, faculties, and actions of the ſaide matter; you need not doubt, but that the whole and intire vertues of ſimples diſtilled is imparted vnto the oyles drawne from them, and that in a purer and moſt ſubtill maner, in as much as by ſuch chymicall reſolution, the moſt ſubtill ſubſtances are ſeparated from the groſſer, by being mingled wherewith, they were greatly weakened and hindred from doing their effectes: and ſo it alſo commeth to paſſe, that looke what vertue was in a pound of the ſimple, is contained in a dram more or leſſe of the oyle: beſides this, ſuch oiles haue this propertie amongſt others, that by a meruellous ſubtilnes of ſubſtance which they haue gotten by the fire, they doe ſlily pearce into the moſt profound and deepe parts, and quickly worke their effects.

The continuance of diſtilled oiles.

As concerning their laſting and continuance, they will keepe long eſpecially if (after they haue beene rectified, that is to ſay yet once more diſtilled vpon aſhes with a ſmall fire in a retort) you ſtop them vp in bottles of double glaſſe, and ſuch as are armed and cloſe ſtopr with cement or maſticke, or wax and maſticke mixt together, without giuing them any aire, except at ſuch times as you would vſe them, and which then you cannot doe without dammage done vnto them: for ſeeing they bee all airie and firie, they cannot chuſe but eaſily euaporate and ſpend, and that in ſuch ſort as that it may be euidently

dently see and discerned, as amongst the rest will easily bee found true in oile of camphire.

The vse. As for the vse; that is in drops if you take them simple and alone by themselues, whether it be into the body or without: as you shall vnderstand hereafter. But to vse them to the most profit inwardly, you must dissolue sugar in violet, rose, cinnamom or other such like waters, and into it cast one or two drops of the oile which you would vse, and so make vp lozenges thereof.

The one and eightith Chapter.

A particular description of certaine oiles that are distilled according to the former methode.

THe oiles of seedes, as of anise, fennell, elder tree, cummin and others are distilled after this manner: Take such quantitie of seedes as you please, as fiue or six pound at the least, and for the better bruise them grosly, seeing carefully to it, that not so much as one seede continue whole, put them into the vessell of copper: poure in vpon them of cleare fountaine water 25. or 30. pound, mingle them diligentlie together, couer the vessell with his head, and doe in manner as hath beene said before.

The oile which distilleth first is of greater efficacie then any one: for which cause, the receiuer may be twise or thrise changed.

This thing is worthie obseruation, that oile of anise seedes in the time of sommer cannot well be distilled, bicause that the spirits thereof are too subtill, and much more subtill indeed, then those of fennell: whereupon it followeth, that at the heate of the fire they doe easily spend by euaporation, though it bee guided and kept very low and soft: But the fittest time to distill them is winter; for how much the colder that winter is, so much the more it becommeth coagulate and resembling the camphire when it runneth downe into the receiuer. After that you haue strained it through a cleane linnen cloth, all the water passeth away, and the oile tarrieth behinde in the linnen cloth, which you must dissolue shortly after in a great glasse by the heate of a fire pan, and so the flegme is easily separated. This is a singular oile, whether it be taken alone by drops with wine, or broth, or sugar lozenges, for to comfort the stomacke, help digestion, discusse winds: for rheumes also and diseases of the lungs, as also for the mother, whereupon it commeth that it staieth the whites of women.

Fruits. Fruits, as of Iuniper berries, &c. by reason that they are somewhat more oilie, then herbes and seedes, doe not require such quantitie of water as herbes and seedes: so that for a pound of fruits fiue or six pound of water will bee enough. They must bee braied sufficiently small, put into the gourde and dealt with as seedes and herbes

are

are dealt withall: the oile commeth foorth first, and afterward the water.

Spices and aromaticall thinges are distilled after the same manner that seedes are; but in their distillation mingle not wine or Aqua vitæ as some doe, but onelie pure fountaine water, for wine and Aqua vitæ rise vp presently, without carrying with them the vertues of the aromaticall thinges, whereas the water riseth not vp, without taking with it the aromaticall thinges. The oile of nutmegs swimmeth aloft, and so doth that of mace. *Spices and aromaticall drugs.*

For to distill oile of cinnamom in excellent maner. Bray a pound of cinnamom in such sort as that it may goe through a sieue, but beate it not all to powder, put it in a gourd, and powre vpon it water of bugloss, borage, endiue and balme, of euery one halfe a pound, let them stand together foure or fiue daies in the vessell well stopt: then out of this gourd powre them in an other gourd, and set this gourd in an earthen pot, with sand betwixt the pot and it: and so set them both in the furnace; first make a soft fire, but after make it greater by little and little: after that there is a measure distilled out after this maner take it away as the best; for that which followeth is of a great deale lesse vertue then the first, but yet may be kept to infuse new cinnamom in. After the same fashion you shall distill cloues, pepper, Angelica, Galanga, &c. See in our secret remedies. *Oile of cinnamom.*

The two and eightith Chapter.

Of the manner of extracting oiles out of wood.

SEeing that the oylie substance of wood is more tenacious and clammie, by reason of the slymines: therefore the extracting of the same is diuers from that of hearbes and seedes, and is not made but with greater cost, and drawne and gathered with greater paine, difficultie, and industrie, then those of seedes and plants which wee haue intreated of before. I know well that some doe accustome to draw oiles *per descensum* as they vse to call it, in two vessels of earth set one vpon another, and a plate of iron with a hole in it betwixt them both: but such oile is nothing woorth, and tasteth for the most part of I cannot tell of what adustion: but the best is to draw it *per ascensum*, that so you may haue that which is excellent good, faire and penetratiue: The manner is such. Make your furnace of matter and forme as aboue, sauing that in the vppermost part of it you must haue a cleft or open place, for the more easie placing and disposing of the necke of your vessell.

The vessell shall bee fashioned like a bladder, cornet, or bag of a sheepeherds pipe called of the *Chymists* a retort, it must bee of glasse or else of earth and varnished and leaded within, and of such bignes

as

as that it may containe a dozen pound of water, hauing a necke of a foote and a halfe long, or a foote at the leaſt, long and bending downward: it is to conſiſt of two parts, the one of them ſtretching from the belly of the ſaid bladder forward, a ſix fingers long, and for thickneſſe ſo made, as that ones hand may goe into the orifice of it to make cleane the ſaid veſſell within: and the other growing euer leſſe and leſſe, euen vnto the end, muſt be made to ioine with the former part by the meane and helpe of ſome faſtning matter: as glue or cement of bole armoniake, and yet in ſuch ſort as that they may be ſet together and taken aſunder when neede ſhall require. This is the figure and ſhape.

A The retort of glaſſe or earth, verniſhed within and leaded.

B The orifice of the retort, for the taking in of matter into the bellie and body, and for to giue way alſo for the making cleane of the ſaid bellie, and which for that purpoſe muſt be made larger than it is pictured heere, for elſe the hand cannot enter into it.

C The other part of the retort, into which muſt be inſerted the neather part of the retort, which muſt haue a ring about, in the place where the two parts ſhall be cemented and luted together.

D The pipe which muſt be narrow and ſharp pointed, to the end it may be inſerted and put into any ſort of glaſſe violl or bottle.

If you haue not the benefit of a furnace, you ſhall place the retort in fit and conuenient ſort within an earthen panne, or in ſteede thereof, in a veſſell or pot of iron good and wide and filled with ſand or aſhes, or without any thing in it, and that vpon a brandrith if there be need of vſing a very great fire, as we ſee it daily practiſed amongſt the Apothecaries.

The preparing of woode for to draw oiles out of it.

Wherefore to draw oile out of oilie wood, you muſt firſt make it ſmall and bring it into peeces, in ſuch ſort as turners doe with turning of wood, and not with any ſaw, or any other edge toole, neither yet muſt you make it like powder, for in boiling it would too lightly and eaſily riſe and ſwell, as alſo thoſe gobbets and lumps which are cut by edge tooles or other inſtruments doe hardlie and with great difficulty yeeld any oile: put into the retort two pound of this wood diuided into peeces after the manner of the turners, & as much aqua vitæ, for the ſteeping and infuſing of it, let them infuſe together certaine daies. this

aqua

Aqua vitæ by reaſon of his ſubtilnes, pearceth more eaſilie then any other liquor, and likewiſe without any difficultie ſeparateth & forcibly draweth the oile from his proper ſubiect, and yet in the meane time it neither changeth nor corrupteth any manner of way the nature of the ſaid oile, becauſe it draweth neere vnto the temperature of oiles; which is the cauſe why we mingle with the woode aqua vitæ rather then common water, howſoeuer I do not any thing doubt of the manner before deſcribed about the diſtillation of oiles, herbs, and ſeedes, in which is vſed the veſſell of copper with a head, powring thereinto ſome cleere fountaine water, as though it could not be verie certaine and profitable for the extracting of oiles of wood: were it not that we do feare more then any thing elſe, the ouer great and vehement boiling thereof, proceeding of the diſagreement of the drines of the matter, and moiſture of the water which might hinder the courſe of our diſtillation. Adde hereunto alſo that ſuch kindes of oiles can hardlie riſe to the inner toppe of the head, if wee ſee this faſhioned copper veſſell.

When as the woode hath beene ſufficiently infuſed, place the earthen pan in the vppermoſt part of the furnace vpon the barres of iron, ſet the retort within this earthen pan with ſande in the emptie ſpaces betwixt, as alſo couered ouer with ſand, cauſe the necke to paſſe through the cleft made in the vppermoſt part of the furnace, and to turne downeward towardes the receiuer, into the mouth whereof it muſt be cloſe ioined, and as carefully and firmely luted with cement as may be: afterward by little and little put the kindled coles vpon the grate, and ſometimes it will not be amiſſe to lay them vpon the retort wherein the matter to be diſtilled is incloſed: if it like you not better to ſet an earthen pan ouer it in forme of an head, and that to reuerberate and beate backe the heate againe vpon the ſaide retort. Theſe things accompliſhed, you muſt ſee to the ordering and continuing of your fire, increaſing it by little and little as reaſon ſhall require, euermore carefully looking vnto the ſequence and ſucceſſe of the worke, vntill ſuch time as the aqua vitæ before infuſed be all of it diſtilled, for this is it which commeth foorth firſt in the diſtillation, and is gathered into the receiuer: then after this commeth the oile pure and all alone without any thing mixt with it, and that in ſuch ſtore, as a man could not looke for the like of any manner of putrifying of the matter whatſoeuer: keepe well this aqua vitæ to ſerue you againe for the ſame vſe, becauſe it ſtill is getting ſome part of the faculties of the matter wherewith it is mixed, and there is nothing to let why it may not ſerue twiſe yea thriſe. When the receiuer is taken away you muſt put another in his place halfe full of cleare water that the oile may diſtill into it: this water we allow in the receiuer in repect of the impreſſions which the fire may haue made by too vehement

The placing of the veſſels.

ment

ment a boiling in the oile, that by the meanes of this water the same may be corrected and taken away, and the oile also kept the better from euaporation, which thing is yet the more fitly atchieued, if you set your receiuer in a bason or other vessel full of cold water, changing and renuing the same from hower to hower, till the distillation be finished. You may also change your receiuer if you think good, ounce or twise, the better to know the differences of your oiles. The distillation accomplished, which you shall gather by the markes befor set downe, you shall separate the oile from the water by the meanes also aboue set downe, and at the same time or before any of these thinges done take your retort from off the fire, and take off his necke, emptiing the bellie of the drosse and excrementes setled & staying behinde: which afterward you shall temper with water so oft, as that hauing strained them and boiled them againe they come foorth thicke and small like papmeate, which is also good for the same diseases, that the oiles are good for. After this order is the wood guaiacum distilled, which is singular good for the vlcers and paines hapning in the french pockes. The oile of the Ash tree: and this is good to be vsed in cold distillations, and to the helping of the morphew and palsie: taken also inwardly it is singular good for the diseased of the spleene: the oile of Iuniper wood is a special good thing in the comforting of the reines and matrix.

Oile of guaiacum wood.

Oile of ash-tree wood.

The fourescore and third Chapter.

Of the manner of drawing oiles of gums, and first of those that are liquide.

FOr the distilling of oiles of gummes, you must vse the same furnace and retort, wherein you distilled your oily woods: but to tell you the truth they are not distilled without much pain, by reason of their glutinous clammines, giuen to hold fast their radicall humour and moisture. And which is more, there are as many waies of drawing oiles of gummes, as there are differences of gummes. For some are liquid, that is to say in substance like birdlime, which will hardly be kept within his boundes, such is turpentine, liquid styrax, and such other like, which participate more of an airie qualitie then of an earthie, and so are easily resolued with a small fire. The others are hard, as is incense, beniouine, and mastick, which require a reasonable heat to be molified with. Some again are resolued with a waterie humour, as myrrhe and gum arabecke.

Therefore to distill liquid gums, and to draw out their oiles, there may two waies be taken: the one is such as hath beene vsed of a long time, and the other is new; after the first way you may distill oile of turpentine thus: Take cleere turpentine as much as you please, and for euery pound take of the ashes of some hard and strong wood two ounces,

Two waies to extract oiles out of liquid gums.

ounces, or ſmall ſand, waſhed grauell, or the powder of brickes, to keepe the turpentine for riſing high and ſwelling, put all theſe in the retort, which you ſhall ſet within the earthen pan in the furnace, as you did in oylie woods, in the beginning you ſhall haue but a gentle fire to draw out the water which will firſt come foorth, and after make it bigger for the diſtilling of the oile. It is likewiſe diſtilled another and that a new way. Take two pound of turpentine, and eight pound of fountaine water that is very cleare, put both into the retort together and diſtill them at a reaſonable fire, following the order ſet down for oilie woods. The oile which you ſhall gather, will be moſt pure and fine, of a very cleare and bright colour, of a ſweete ſmell and pleaſant taſte, which properties are not to be found in the oile which is drawne after the common and ordinarie faſhion: and this commeth to paſſe by reaſon of the water tempering the qualities conceiued and begotten in the matter diſtilled by the force of the fire and heate of the veſſell, which otherwiſe would haue begotten ſome fierie impreſſions therein had not the reſiſting qualitie of the water withſtood the ſame by his moiſture, and that ſo much the more, for being likewiſe receiued into a receiuer halfe full of faire and freſh water, which affordeth an other good helpe likewiſe vnto the ſame: of all which helpes, the common manner of diſtilling this oile with ſand and aſhes hath not one, as is too apparant in the vnpleaſant taſte and blackiſh or ſad yellowiſh colour, and in that it is not fit to be vſed about the body outwardly, ſo far is it off from being woorthie to be taken inwardly, without the endangering of the ſicke partie; beſide the vnpleaſantnes of the taſte: but this which is diſtilled with water is ſingular good for all manner of diſeaſes, for which it is ſo highly commended of all men, as namely for the ſhortnes of breath, ſtone, colicke, and diſeaſes of the lungs being taken inwardly in the quantitie of two drams: as alſo to take away ſcarres remaining, freckles, ſtaines, and other ſpots of the skin, being applied outwardly.

Oile of turpentine.

Thus is oile of wax diſtilled.

But and if you deſire to know when your oile is all diſtilled, then you muſt marke and ſee when it ceaſeth to runne out of the retort into the receiuer, for then the diſtillation of the beſt and moſt excellent oile is finiſhed. And in caſe you yet deſire to draw ſome more oile out of the reſt of the matter remaining within the retort, you may doe it verie eaſily, if you caſt into the ſaid retort ſome little lumps of lead to the quantitie of an ounce, and that by the orifice of the firſt part of the ſaid retort, which muſt bee very well fitted and luted againe with the other part as it was before; for the leade being molten, doth reſolue the gum remaining, in ſuch ſort, as that whatſoeuer is oilie, will diſtill as oile, and you ſhall gather it in another receiuer. All which finiſhed, you ſhall take the retort handſomely out of the furnace: reſeruing the ſame to ſerue you againe in like time of need.

When the diſtillation is ended.

The

The fower score and fourth Chapter.

Of the manner of extracting oiles out of hard gums.

HArd gums, such as frankincense, beniouin, masticke, and waxe, seeing they are of a more earthie substance, haue a faster and firmer consistence, and are resolued more hardly then the liquid ones, and so aske not onelie more labour to haue their oiles drawne from them, but stand in neede also to haue some sort of oile, and a reasonable fire to mollifie and soften them, to the end that afterward they may the more freely yeelde their owne oile. It is true that euen of these there are some of them more tedious and stiffer resisting to bee dissolued, as frankincense and beniouin: and other some more easie to bee molten, as waxe, and there are others that are indifferent betwixt both as masticke. So as that all these gums according as they are more or lesse hard to bee resolued, must bee more or lesse mollified and melted before hande, by the meanes afore named in the distilling of liquid gummes: the water onelie excepted which must neuer bee put into the retort with any thing to be distilled. It is also to bee considered and weighed, howe that harde gummes doe verie hardly indure and abide any water, whiles (inclosed within the retort) they sustaine the violence of the fire, but insteed of fire, one may put thereto of oile of turpentine, to the quantitie of three ounces, as well because this oile is most pure and distilled with a reasonable heat (as wee haue said before) as because it hath a propertie drawing neere vnto the nature of these gums, whereupon it seemeth the more fit to bee vsed in the distilling of these gums, as seruing notably to correct their hardnes: againe this way more oyle will be drawn, then by vsing of washed sand & grauell cast vpō the matter: & according as we see commōly practised of oyles of all sorts of gums. And in case you haue not oyle of turpentine in readines, you may vse some other sort of oyle, prouided as much as possibly may bee, that it incline not notably either vnto any colour of smell: notwithstanding by this meanes you shall not doe more good then by the former. For there is some kinde of gum so troublesome to be resolued as frankincense, as that you must bee faine to draw the oyle thereof, after the same manner that you vsed in the extracting of oyles from the drosse and residence of turpentine: that is to say, by casting into the retort amongst it small morsels or lumps of lead, and with raising of the neck of the retort a little higher, then is vsuall in the distilling of turpentine and oylie woods. By this meanes without all doubt you shall see some ounces of oyle swimming on the top of the water within the receiuer, after that the matter hath growen hot: which (for as much as they would bee tainted with some ill smell and vnpleasant taste because of such

ſuch qualitie as they haue gotten through the vehementnes of the fire, then incloſed within the retort) muſt be corrected by the changing of the water in the receiuer, that ſo you may keepe them for the vſes which ſhall hereafter be declared.

Theſe things aforeſaid well vnderſtood, when you deſire greater quantitie of oile, and that more cleere and excellent; you ſhall take two pound of the ſaid matter and gums, whereof your reſerued oiles were made: you ſhall put them in a cleane retort, which you ſhall ſet ouer the fire hauing the necke hanging downe ſomewhat more low, and in a ſhort time (and that without any great force of fire) there will be wrought a certaine kind of butter, which will run out in great plentie, being as it were of a middle conſiſtence betwixt the gum and the oile before diſtilled. Againe you ſhall take this butter-like matter and put it into the retort hauing firſt made it very cleane, and then ſet it vpon the furnace the ſecond time, with certaine ounces of purged oile which you ſhall haue drawne before from the ſame kinde of gumme. By theſe meanes and the helpe of a reaſonable fire giuen vnto it, you ſhall draw as much oile (and that moſt exquiſite) as Art and nature could ioyntly giue together. And thus much for the ſure and certaine way of extracting of oiles of hard gums, which though it be coſtlie, ought notwithſtanding for the excellencie thereof be rather practiſed then the other common way which is by grauell, aſhes or waſhed ſand, caſt into the retort with the matter. By ſuch meanes you ſhall make oyle of amber, iet, brimſtone, and other ſuch kind of thinges, being firſt made into powder and putting thereunto common oile, which hath beene firſt clenſed and purged in a leaden veſſell or warme water.

Oile of wax is thus prepared after the common manner. Take a pound of new wax, you ſhall waſh it thus: melting it at the fire you ſhall caſt it by and by into a veſſell full of white wine, worke it well with your hand after the manner of paſte, ſometimes drawing it out in length, ſometimes breaking of it, and ſometimes doubling of it: melt it once againe, and caſt it into the ſame wine, then alſo worke it with your handes as before, and thus you ſhall doe three or foure times, till you ſee the wax to haue ſpent about the quantitie of a pinte of wine; this done put it thus prepared into a retort, and caſt vpon it grauell, waſhed ſand, or powder of brickes, notwithſtanding that it may bee diſtilled without grauell, ſand, or brickes, as is tried by experience: lute the retort all about, euen vnto the midſt of the necke, and ſet in an earthen pan full of ſmall aſhes vpon the fire, which muſt bee but ſoft and gentle at the beginning, but augmented and made greater afterward from degree to degree, the oile will diſtill and come foorth very cleare. *Oile of wax.*

Others prepare it after this manner. They ſet an earthen veſſell *Another manner of making oile of wax.*

full of white or red wine vpon the fire, whereinto after that the wine is become hote, they caſt the wax diuided into many morſels: after they cauſe the veſſell to boile being cloſe couered, and when the wine is ſpent they powre in other, vntill that euery pound of waxe haue waſted ten pound of wine: and when they ſee that there is yet a little wine with the waxe, they take away the wax from the fire, that ſo it may not burne, and preſently caſt the waxe into an other veſſell wherein there is a little white wine: after that it is cold and the moiſture thereof taken away, they diſtill it in a retort. In any caſe there muſt heede be taken that it boile not in diſtilling, as in turpentine and hony, for ſuch liquors being heated, doe eaſilie ſwell and riſe vp. Wherefore there muſt be made but a ſoft and gentle fire at the firſt, and then afterward increaſed and the ſtillitorie cooled: againe, to hinder the boiling vp of it, you may caſt in ſome ſmall lumps of lead wrapt vp in paper, or the leaues of Iuie or ſmall grauell, &c.

The vertue of the oile of wax.

This oile is ſingular good for to ſuppurate and ripen impoſtumes, aſſwage paine, comfort the hard and ſtrained ſinewes, and for the palſie. The water diſtilled before the oile doth maruellouſly heale all ſortes of woundes, if they be waſhed therewith, and a linnen cloth wet therein, laid vpon them.

You may diſtill after this manner, beniouin, ben, ladanum, and other ſuch like gummes: you muſt alſo note here in this place, that ſuch gummes may be diſtilled with water, as the oiles of hearbes, and ſeedes before ſpecified.

The fiue and foureſcore Chapter.

Of the manner of extracting oiles out of myrrhe, ſtirax calamite, gum arabecke, and ſuch other like.

THe licor which is drawne from mirrhe, ſtirax calamite, & gum arabecke, is not an oile, but a groſſe ſlimie and glewie matter: which is perceiued and knowne, bicauſe they take not fire, yea and if you meere with any of them at any time that will burne, then know that it commeth by the mingling of ſome other oile therewith and Aqua vitæ.

Take therefore very new egs, and make them very hard in hote water, afterward cleaue them in the middeſt and take out the yelkes: and in their place putting as much gummes and that before they bee colde, ioyne the two partes of euery one of them together againe, and making a hole through the peeces of the ſmaller ende, hang them in a caue, to the ende that the moiſture of the place, may cauſe the gumme (whether it be myrrhe or ſtirax calamite) therein incloſed to reſolue the more eaſilie: ſet vnder euery egge a violl, and there will drop downe into it, a matter much like vnto hony or thinner.

This

This done, gather that which is distilled into a viol and set the same very well stopped, deepe in the horse dung, to the end that by his heat (being good to alter and putrifie the slimie qualitie of this matter) it may be corrected, and made more moist and like vnto oile.

Fioravanto an Italian Empericke in the 57 chapter of his second booke, and 12 chapter of the fourth booke of his Vexations, prepareth the oile of myrrhe after this manner: Take of elected and true myrrhe sixe ounces, of aqua vitæ without any flegme twelue ounces, mingle them together in a retort of glasse, which you shall set vnder horse dung verie hot the space of sixe daies, afterward distill them in Maries bath till all the water be risen and wholy gone: then you shall see in the bottome of the retort oile, which you shall straine through a linnen cloth, and keepe it to preserue the face a long time and continue it in his yoong and youthfull brightnesse and freshnes. This oile is a verie fit balme to conglutinate and heale wounds speedilie, as also to cure all other inward diseases in taking two drammes thereof inward: it is good also for the deafenes of the eares. Looke for the larger handling of the distillation of oiles, in our booke of secret medicines.

The silke worme.

The sixe and fourescore Chapter.

Of the profit comming of the wormes that spin silke.

THE good huswife which hath the ouersight, gouernment and disposing of the cattell, must not make lesse account of the silke worme than of the hony bee. For besides the pleasure which she may conceiue of the sight of the maruellous industriousnes of this little beast in making and spinning of silke, she may also reape an incredible profit of so excellent a worke, which honoureth and maketh men glorious, attired with the pompe of this workmanship and piece of cunning skill: in so much as we see kings, princes, gentlemen, prelates, iustices, and other notable personages to be apparelled with the trauell of these prettie creatures. Which is more; the silke serueth not onely for the apparelling of men, but also for a singular remedy to comfort the hart that is sicke, to reioice and recreate all the heauy and troubled spirits, as we may well vnderstand by that famous confection, called of the Physitions Alkermes: which being compounded for the most of the decoction and infusion of silke in the iuice of Kermes, being taken inwardly is a soueraigne remedy in faintings and swounings. Wherefore the good wife of our countrie farme shall make account of the keeping of silke wormes: to the end that she may reape profit of the sale of the silke which she shall gather from them yeere-

ly : which profitable practiſe is well knowne amongſt the wiues of *Tourraine* heere in France.

The foureſcore and ſeuenth Chapter.

Of the ſituating of a place to keepe ſilke wormes in.

THE huſwife for the vndertaking of the gouernment of ſilke wormes, and for the making of her beſt commoditie thereof, muſt chooſe out ſome place about the farm for the keeping of them, and it muſt be rather high than lowe, in a good aire, without moiſtneſſe, and ſo prouided of windowes, as that the ſunne may come in at them morning and euening if it ſeeme good to ſuch as haue the charge to gouerne them : theſe windowes muſt be ſuch as will ſhut cloſe, or elſe are glaſed, or paper windowes, or of fine linnen cloth, to the end that when it raineth or bloweth, in cold weather or in moiſt, they may be kept very cloſe and faſt ſhut : for who ſo faileth to gouerne and prouide for them in this ſort, it commeth to paſſe without doubt that theſe prettie creatures being tender at all times, cannot eſcape but die when hard weather commeth. He muſt likewiſe haue nets and cords before the windows, to the end that the paper windows being opened, the ſparrowes, ſwallowes, and ſuch hurtfull birds, may not get in to feede vpon theſe wormes. Neither cocke nor hen muſt come in here: for they would ſo rauenouſly feed vpon this little worm, as that they would be ready to burſt. The floore muſt be very cleane, the wals without holes or creuiſes, by which crickets, lizards, rats, or other like vermine may enter and get in to kill and ſpoile theſe little things either night or day. In it there muſt be ouerthwart partitions with pillers, and vpon them ſhall be faſtned many boordes or hurdles made of the ſtalks of roſe-trees, for to pleaſure this ſmall wretch withall : and theſe before you ſet any wormes vpon them, muſt be ſprinkled with a little vineger and rubd with ſweet herbs, becauſe they loue ſweet ſmels.

The foureſcore and eight Chapter.

Of the gouerning of ſilke wormes.

THE carefull huſwife ſo ſoone as ſpring draweth neere, and that ſhe ſhall ſee that the mulberrie-tree beginneth to bud, ſhall make in readineſſe egs of worms, which ſhe hath kept all Winter to be brooded and ſit vpon : and if ſhe ſee that the mulberry-tree is ſlow to bud, ſhe ſhall lay freſh dung to the rootes thereof during the new moone of March, thereby to bring it forward : for otherwiſe for lacke of the leaues of the mulberrie tree, if it ſhould come to paſſe that her

her wormes ſhould be hatcht or bred, ſhe ſhould be conſtrained for their foode, to haue recourſe to the hart of the thorn, elme leaues, the tender branches of nettles and others. And as concerning making of choiſe of ſuch wormes as are to be breeders, you muſt take the ſeede which is but a yeere old, and which being bathed in wine, falleth to the bottome and floteth not aboue, and withall hath the markes, which ſhall be ſpoken of heereafter: the time of brooding them, is the fifteenth or twentith of Aprill, from the fourth vnto the tenth day of the moone, but neuer in the decreaſe: for wrapping their ſilke rounde about it they wil bring it forth the fourth day, at ſuch time as they are ſtrong, in ſuch ſort as that their endes and huskes will be greater, harder, and more finely haired, then any other that are bred at another time: for thoſe which are bred in the decreaſe of the moone are alwaies feeble, and yeeld no profit. The meanes to make them breede, is, after that you haue watered and bathed them with white wine, arther then warme water, to lay them neere the fire, till they be a little warmed, then to lay them betwixt two pillowes ſtuffed with feathers, and made likewiſe ſomewhat warme, or betwixt the breaſtes of women (prouided that they haue not their termes) and ſo as the wormes breede, to take them away with mulberrie tree leaues, thoſe which are moſt tender, and to lay them vpon boords or papers, that haue beene rubd ouer with wormwood or ſouthernwood or ſome ſuch like herbe: when they are once bred, they ſhall haue the leaues of mulberrie tree giuen them euening and morning, increaſing them euery day, as the wormes ſhall grow greater and greater, vnto the fourth change: for then alſo they will ſtand in neede to be fed at noone, becauſe they eate more then they were woont: but you muſt be admoniſhed, that when they mue or change you muſt giue them ſparingly: becauſe as then they are weake and feeble: in any caſe let not the leaues be rotten, moiſt or wet: and if it ſhould fall out that they ſhould be moiſt, then you muſt wipe them throughly with cleane linnens and drie them at the fire. They muſt alſo be gathered of mulberrie trees planted vpon the tops of hils and ſtanding open vpon the ſunne, and of old trees rather then of yong ones, and ſuch as beare a fruit ſomewhat red and blacke, and not to gather the ſaid leaues in the morning, ſo long as they are wet with the deaw or other thing, vntill the ſunne haue gone ouer them, and further to picke the bad from the good, before you giue them to the wormes. Theſe little beaſtes may not be touched with your hands, but as little as may be, for the more they are handled the more they are hindred, becauſe they are very exceeding tender and daintie, eſpecially at ſuch time as they caſt or change. And yet notwithſtanding they muſt be kept cleane and neate, and all their little dung taken from them euerie three daies, the place muſt be perfumed with frankencenſe, garlicke,

The gathering of the mulberry tree leaues.

onion, larde, or broild sausages, that you may minister matter of pleasure vnto these little creatures, and againe if they be weake and sicke, these smelles refresh and recouer them againe. They must also be marked whether they sleepe or no, for seeing they are woont to sleepe fower times especially when they cast and change, if it happen that any of them be still eating and sleepe not, they must be put apart without any meate to eate, that so they may fall to sleeping, for else they would all burst: and it is as true that if they be breeding yong they must be soberly dieted. After that they haue cast and changed the fourth time, within three daies after they eate better then euer they did, vntill such time as their bodies begin to shine, and that they make manifold shew of the silke thred that is in their bellies: which if it be to come white from them, their head is as if it were siluer: if that it be to come yellow from them, their heads beare the colour of gold: if greene or orange colour, their heads foretell the same. Thus they feeling themselues well filled and fed, they seeke out some resting place for the purpose to fasten themselues vnto, and there orderlie to auoide their silke, euerie one shutting vp himselfe in his scale or husk, which they make and build vp in two daies or a little more. Then you must be carefull to haue in readines for them, round about the tables, good store of broome, brakes, branches of vines, oke tree boughes, chesnut tree boughes and other thinges, and withall let them be verie drie: for moisture is their enemie, and then not to giue them ouer till they be all fastned and hanged vpon these branches, there to make their worke: whereof they be so eager as that they goe mad till they be packed vp in their little clewes and bottoms, and that in such sort as that a man would thinke that they would be stifeled: then they must haue some helpe, and order must be taken that they may not fall downe vpon the earth, and if they doe fall, to put them vp againe in some place for the purpose. They haue finished their worke in two or three daies more or lesse, and as the weather goeth hot or cold at that time: and as it is easie to perceiue when they all worke, so they make it to be heard verie well when they cease and make an end of their labour. They dwell thus and abide altogether for the most in their huskes twentie daies, more or lesse, according to the tendernesse, softnes, or hardnes of their bottomes of silke. As concerning the choise of their huskes or cods, the orange coloured are best and not the yellow, and least of all the white or greene: and as concerning the taking of the single or of the double, the single are more worth, because that the male and the female are within the double: which female laieth her egges no sooner in the morning then she coupleth with the male againe. The scales or huskes being thus chosen, those which are good for increase must be put into a place where no dust is, and well couered, the double also must be separated from the

Signes that the wormes would make silke.

For to know the colour of the silke.

The choise of the fleeces.

The choise of breeding wormes.

the ſingle, to the end that they may make the fairer ſilke, and eſpecially there muſt choiſe be made of ſuch people as are the beſt worke-folks, both for to know the ſilke, as alſo to draw it out with ſuch diſcretion, as that there may come the moſt profit of it. When the wormes ſhall be out of their huskes, then you muſt make choiſe of the beſt for increaſe and breeding: thoſe which are the groſſeſt and blackeſt are the ſtrongeſt, and affoord better egs than any of the other: you muſt likewiſe take more females then males: and for the knowing of the one from the other, the eies of theſe creatures do ſufficiently teſtifie thereof, for the females haue thinner eies and not ſo blacke as the males: they muſt be put aſunder, and white linnen clothes ſpred, or rather leaues of paper vpon little ables for to receiue their egs: the paper is more naturall and commodious then the linnen, becauſe it may be the better raked ouer with a knife to draw together the egges thereupon, without any making of ſpoile at all.

The difference betwixt male and female wormes.

As concerning the diſeaſes whereunto theſe little creatures be ſubiect: when they haue not been ſo carefully looked vnto as they ſhould to be kept cleane, when the cold Northren winde, or the hot Southerne ſunne hath moleſted them, as alſo when they haue eaten too much; then they become ſicke: wherfore you muſt keep them cleanly: ſtop the windows and holes by which the cold winds do enter and get in, and carrie coales of fire that ſmoke not into their lodging, ſetting thereupon frankincenſe or ſauſages cut in ſlices (for they ſo loue this ſmell, as that it preſently cureth them) as alſo beſprinkle them with a little malmeſey or Aqua vitæ. If they haue beene troubled with too great heat of the South ſunne, there muſt be ſprinkled vpon them roſe water: if they haue ouereaten themſelues, the contrarie diet will cure them, as the keeping of them three or foure daies without eating any thing: if there be any of them that are ſpotted with any duskiſh, blewiſh, or yellowiſh colour, and that there appeare withall vpon their bellies a certaine humour that doth wet them, they muſt be ſpeedily taken from out of the company of the reſt, and carried out: and in the morning before the ſunne riſe, ſet the whole and ſound in the aire, for ſome ſmall time, and after put them in their places againe, and ſprinkle them with good and ſtrong vineger, and to anoint them with wormewood or ſouthernwood, and alſo to giue them aire, and alſo to make them feele the force of the ſunne, prouided that the beames thereof do not touch them, and ſo fitting the windows, as that the morning aire may ſeaſon and ſend his breath throughout the whole houſe.

The diſeaſes of ſilke wormes.

The end of the third Booke.

THE FOVRTH BOOKE OF THE COVNTRIE HOVSE.

That there are two sorts of meadowes.

The first Chapter.

IN our former Treatise we haue runne through those things, which belong vnto the husbanding and ordering of gardens and orchardes, and now it requireth that wee speake of meadow grounds, whereupon consisteth the greatest meanes of feeding and bringing vp of cattel, to the end we may perfect and accomplish our foreappointed purpose. The thing therefore called in our French toong *Pré*, may seeme to be borrowed from the old word *Prat*, and both of them to signifie and point out a thing that is ready and prest to doe the master of the farme and farmer seruice, without putting him to any paines in respect of the labouring or husbanding of them, but this must be vnderstoode of meadowes hauing their praie and maintenance about them : namelie, such as are those which are fed and watered with the Marne on the one side, and the riuer Aube on the other, which is about some hundred and fiftie leagues of square country, as also those about the riuer called Veselle, which of all others doth most abound in meadowes : it is in like manner in the free and reclaimed groundes from *Barle-duc* to *Vitrye* in *Partois*, and from *Louemont*, to *Vassie* in *Thierache*, all along the little *Blondelle*, as also along the great and small *Morin*, in our country of *Beauuoisis*. Such meadow grounds do not feare storms and tempests, as gardens and other arable grounds do: but with little cost and charges they yeeld their double reuenew and profite euerie yeere, the one of haie, the other of pasture. Meadowes are of two sorts, the one dry, the other moist. The drie craueth not the helpe of any water to bee watered withall, except the raine, because it is in a fat place and where it hath full store of refreshing iuice, and in such places hay doth grow of his own accord, and that a great deale better than where it is forced by casting of water vpon it. The moist meadowes haue need of some small brooke to be fed and fatted thereby, by reason of the sleightnes, drinesse, and naturall leannesse of the place.

The

The second Chapter.

What grounds are good for meadowes, and how to make newe meadowes.

THe ground that is fat and ful of iuice, although it be nothing at all helped either by small riuer or brooke, is good to bring foorth haie, so that such place be not exceeding far from some small brooke, standing water or little riuers, or at the least that it bee moist at the bottome, and such as wherein, if that one make a reasonable deepe ditch, he may finde good store of water. For moisture is one of the nurses of haie: where such fat and iuice ground is not, there may meadow grounde be made of what manner of earth soeuer it be, whether it be a strong, sleight, or leane earth, so that you haue by it but this one commoditie of a little brooke to water it, and that the fielde lie somewhat sloping or descending, not very lowe, nor very flat, as where in the raine water or other of any small riuer raking sometimes ouer the same, do not vse to dwell and stand any long time, but passeth and runneth away faire and softly without any tarying. Wherefore I agree and must needes confesse, that some groundes are not so fit and profitable as other some for the receiuing of haie seed, as those which through the neerenes of some great floodes and pooles, lakes, and great large waters, are oftentimes ouerflowne and couered with abundance of water, which in winter drowneth the grounds: whereupon it commeth to passe, that the haie is nothing fine or delightsom vnto beasts, but great, and full of stumpie stalkes, a broad grasse also and nothing pleasing their taste. But howsoeuer it is, the haie of standing waters ill husbanded and corrupted, as also the haie which naturally groweth thereabout, and by the large borders of lakes, is not such as the fine mouthed beast can delight in, as neither that which is gathered in grounds bordering vpon the sea, as with the salt and nitrous relish whereof, the appetites of cattell are ouerthrowne, not being accustomed thereunto, besides that, the very grasse it selfe is more ranke then the common sort of grasse, and in taste verie vnlike.

Wherefore if you woulde make new meadowes, make choise of the best ground you can: this ground you shall lay fallow, and let lie idle a whole sommer, then in Autumne after you shall turne vp and plow the same ground, often sowing therein for the first yeere turneps or nauets, millet, beans, or oates, and the yeere following with wheat: then the third yeere you shall labour it diligently and sowe it with fetches mixt with haie seedes, and after this you shall mowe and order it as other old meadowes, as we will declare by and by. *To make new meadow grounds.*

The

The third Chapter.

What manner of husbandrie is required about meadowes.

To sowe meadowes.

SVch as obstinately defend and maintaine that there is not any paines or labour to bee vsed about meadowes, seeme vnto me (vnder correction) voide of all sound iudgement: for euerie where in processe of time the earth becommeth weary and standeth in neede to be refreshed in some parts of it, yea to be sowen againe, and fashioned, if neede be, especially in feeding grounds, and meadowes appointed for pasture for horned beastes: for such cattell as beare wool doe not desire watrie places (as meadowes would bee) but being contented with sheepherdes, grase along by the waies and vpon the plowed grounds. And as for your herdes of yong horse and asses, they feede naturally and commodiously with your other cattell. Yea furthermore I haue seene in *Campaine*, as it should bee about *Pont* vpon Seine, a meadow countrie, the geese and turkies daily and ordinarily driuen to the pasture, for the saving of charges at home, which thing would not agree well about the places of *Monfort l'Amaurye*, where is kept some part of the kings breede of horses and mares, for the downe and other feathers of those foules, as also their dung, would make these sortes of beastes sicke, euen horse, mare, mule or asse.

To weede it and keepe it cleane.

But whatsoeuer others saie or doe, sure I am that a good farmer must not neglect his meadow ground, seeing the husbanding of them is a matter more of care then of paine and labour. For the first care must bee to keepe it that it grow not with bushes and thornes, or great high stalkes of other herbs, al which would be pulled vp by the rootes in autumne or before winter, as bushes, brambles, and rushes: some other of them in the spring, as succories, hemlocke, and such other weedes, which are vnprofitable for the feeding of the herdes of horse and mares. Likewise there must not be left in them anie stone, nor yet anie other thing that may hinder the digging of them, when the earth is to be stirred. The ground being freed of stones shall be made euen and smooth verie handsomlie in the winter time, and after that tilled and turned ouer very diligently and finelie with the plough, and after harrowed, especially that which is leane, and lying with some descent, but not watered otherwise then the raine vseth to water it: it must bee dunged also in Ianuarie and Februarie when the moone is in the increase, that so it may be fatted and store of iuice brought into it for the growing of grasse. The best manuring that can be bestowed vpon it, is fine crumbling earth mixt with dung, which wil do it more good then the best and purest dung that you can find in your neathouse. For the making hereof you must gather in sommer the dust that is by the high waies

To gather out the stones.

To harrowe it.

The manuring of it.

waies moſt haunted, and mingle the ſame with the dung of cattell, the filth and ſweepings of the houſe, the dirt of the ſtreets, the parings of the houſe and the great and little court, the dung of hens and pigeons, oxe dung, horſe dung, and all other ſuch excrements, which muſt be let incorporate and mingle together the whole Winter, vntill ſuch time as this matter watered with water and throughly pearſed with the froſt be ſufficiently ripened: this mixture when it is ſpred, entreth better below into the earth then dung alone, and alſo incorporateth it ſelfe better with the earth.

The fourth Chapter.

What muſt be ſowen in the meadowes.

THE way then to reforme the old and drie conſumed places of your meadow, if they be become hoary and rotten, muſt be by ſowing them in the ſpring with good haie-ſeede, which is the meadow clauer, which is called in ſome places, Sops in wine, by reaſon of the flower, which is an herbe which men in times paſt made great account of, ſowing it by it ſelfe as the fetch is woont to be ſowen, and they did ſow it in Ianuarie as *Cato* and *Palladius* do report. The maner of ſowing of it ſhall be be ſet downe in the fifth booke in the handling of pulſe. Likewiſe the ſeede of gallion or petty mugguet, and wild fetch and hauer-graſſe, which the Latine Poet calleth properlie barren oates. Againe the ſmall wild mallow is not amiſſe, neither the little crow-foote, foreſeene it be not that with the bulbous roote, that is to ſay, the crowfoote hauing a round roote like an onion, becauſe that is venemous for the beaſt, but it muſt be that crowfoote which hath a hairy and thready roote. The twofold Satyrion is good in ſome place where it groweth naturally, ſo likewiſe is the hyacinth, the one of them being of a blew flower, the other of a purple, heerein differing from the Satyrion, which is more cut and diuided into ſmall buds, as likewiſe more fragrant. It is not good that there ſhould be any great ſtore of plantaine, except it be that of the leaſt ſort, which is called birds toong. The wilde carret, eſpecially that, which in the midſt of the white flower in the rounde broade tuft beareth a ſweete ſmelling ſeede, being rubd in the hand like vnto graines of Paradiſe and of the ſame colour, as likewiſe wilde woundwoort (which *Dioſcorides* calleth *Hercules* his woundwort) is very good, foreſeene thai it grow not too great. Germander likewiſe is good, being called of the Grecians ſmall oke, by reaſon of the figure of the leafe. Little rampions l kewiſe is very good, becauſe of the roote, which helpeth forth Lent ſallads as well as the creſſes, wilde ſaffron is not good becauſe of his flower, ſeeing both the roote and it doe kill beaſtes, euen as hemlocke doth which is called birdes bane: neither yet water pepper as being vehement through

To ſow meadowes.

Sops in wine, or ſnaile clauer.

Cato.

Palladius.

Plantaine.

Wild carret.

Wound-wort.

Germander.

Small rampions.

Wild ſaffron.

through his heate and vſing to grow onely in ſtanding and ſtinking waters as laughing ſmallage doth, called *Herba Sardonica*, becauſe it maketh men and beaſtes to ſeeme to laugh when it killeth them: in like manner wild woad, buckes beard, hartes toong, wilde and lowe growing all-good, both ſortes of violets, the leſſe centuarie: all the three ſortes of daiſies, and eſpecially thoſe which are called gold cups or little crowfoote, and the three leaued graſſe of the medowes are all of them ſingular good herbes for the fruitfullneſſe of the medowe ground. The garlick which is called *Serpentina*, and which a man would iudge to be a little ſmall ruſh of a reaſonable length doth not amiſſe, no more then the true and ſmall water germander, which is often found in the meadowes of *Cheles* and elſe where: but great ſtore of it maketh the haie to ſmell ill, as on the contrarie penniroyall maketh it ſmell ſweete, and ſo likewiſe organie of both ſorts, the three ſortes of balme and coſtmarie, but mints, and that horehound which is wilde cammomill are nothing woorth. Great quantitie and ſtore of wilde fetch cauſeth the haie to be very full of nouriſhment for cattell, the leſſe plantaine, ſiluergraſſe of both ſorts, peachwoort (ſo called becauſe it carrieth a flower like a peach tree) and burnet: the three ſortes of ſhepherds needles, called of the ancient writers ſtorkes bils, (by reaſon of the faſhion of the peake that followeth in place after the flower) whereof herbe Robert is one, doe very well for cattel, and cure them of the grauell, cauſing them to make their vrine in abundance. Milfoile and prunell (called the carpenters herbe, becauſe it is good for cuts) are alſo good, and verie ſweete of ſmell, but quitchgraſſe (called dogs graſſe) doth deſtroy the meadow as much as balme doth mend it and increaſeth milke in kine, as great hares foote doth in goates: and in like manner as veruaine and groundſwell are good hearbes for conies. Looke well that thiſtles ſet not their foote within your meadow, except it bee the bleſſed thiſtle with the yellowe flower, or elſe the little thiſtle, and that but about the borders or edges of the meadow, and that it haue the leaues of ſow-thiſtle, though it bee ſmaller and ſpotted as it were with drops of milke, and therefore it is called Maries thiſtle. The red and blew pimpernell becauſe of their flowers, as alſo the white, are as good there, as either the male or female mercurie, though theſe hearbes delight rather to grow in the waies, and amongſt vines, as doe alſo the bindeweede and nightſhade: flaxweede which differeth from Eſula in as much as it hath no milke, and groweth high as line doth (ſaue that it hath a yellow flower) is good, but eſula or ſpurge is naught, as is alſo hypericum: for theſe two are both of them very hot and ſhrewd fellowes: melilot the ſmall and the great, mirrhis which hath leaues like fennell and diuers diuided white flowers, is of great vertue and ſweete after the ſmell of myrrhe: to bee ſhort the carret and cheruile doe ſerue greatly

Laughing ſmallage.

Great and ſmall water germander in the medowes of Cheles.

Carpenters wort balme.

Bleſſed thiſtle.

Pimpernell.

greatly for the nouriſhing and goodnes of the haie. To conclude, the medow well kept and maintained doth alwaies bring double commoditie, to that which is ill gouerned and husbanded.

The fifth Chapter.

Of the harrowing, watering, and keeping cloſe and well defenſed of the medow ground.

BEſides the ſeedes of good herbes, which is very requiſite for the meadowes, yet there are other workes needfull for the goodnes of haie: for the meadowes muſt be harowed and raked preſentlie after they be ſowen, to breake the clods into ſmall earth or duſt, that ſo the mowers may not therby hurt their ſiethes. If the ground of the meadow be withered and dry, it will be a merueilous commoditie vnto it, to drawe into it all the winter long, at the leaſt ſome ſmall brooke, for the watering and moiſtning of it, ſeeing that moiſture is the naturall nouriſhment of haie, and this woulde be done, ſpeciallie during the months of Nouember, December; Ianuarie, and Februarie: afterward, when the earth hath drunke her full, ſtoppe the way whereby the water of the brooke runneth. It is true, that if the meadowe plot lie vpon the ſide of ſome hill, or vpon ſome high ground, there ſhall be no need to water it, for the firſt raine that falleth, will deſcend and water ſuch medowes very ſufficiently, being ioined with the iuyce and goodnes of the dung which you ſhall haue beſtowed in the higher places. Neither ſhall it bee needefull to water the ground much where there is great quantitie of three leaued graſſe, becauſe it woud die by and by. Againe you muſt not cauſe any water to ouerflow any olde medow groundes, in the time of great and exceſſiue colde, except it ſhould bee that they ſhould continue a long time: bicauſe that the water failing, the ground thus boyled againe, and drencht, would bee much annoied by the vehemence of the froſt and ice. If there bee any marriſh or dead water in any part of your medow: you muſt cauſe it to run and draine out by ſome conduites or trenches: for without all peraduenture the ſuperaboundance of water, doth as much harme, as the want, ſcarcitie or lacke of the ſame: you muſt bee ſure to keepe ſwine out of your medowes, bicauſe they are alwaies turning it ouer with their ſnouts, and raiſing great ſoddes of earth: neither muſt you admit any great cattle into them, ſaue when they bee very drie, becauſe the hornie hoofe doth ſinke into the earth, and either breake off the graſſe or cut in ſunder the rootes, whereupon they cannot ſpring or multiplie any more.

The

The sixth Chapter:

To mowe your meadowes againe and againe, to gather the haie and refresh your meadowes, and to bring your barren medowes into tillage.

YOur meadowes must be cut downe in the newe of the moone, but neuer in the decrease, and whiles it is somewhat greene before it be through ripe: for so you shall reape both more, and againe it will be more daintie and delicate for the beasts to eate, more sauourie to fat them, and to make the knife to yeeld their milke more plentifully: and the meadow will be the sooner ready to yeeld his second crop of hay: for and if it should staie till it were verie ripe before it were cut downe, it would haue lost all his iuice and substance, and would become good for nothing but for litter: and againe, if it bee laid in too speedily and ouer greene, it would do nothing but putrifie in the heie mow or burne when it is mowed, it must be dried in faire & open weather, two or thre daies before it be caried in, and if in the meaue time any raine do fall, it shall not be caried in before it be dried againe. And when it shall be throughly drie, you shall make it vp in cocks or heapes, and afterward you shall make it into bottles for the vse of your cattell. It is true, that such as you will keepe for the feeding of your horse and oxen must be very drie: for when it is so prepared, it will make them stronger, and keepe them from hauing the gripes in their bellies: but that which is to serue for kine and sheepe, standeth not in need to be so through drie, bicause then they wil both eate it better, and giue greater store of milke. And in case you cannot get in your hay so soone, nor make it into bottles, then you must make it into a high cocke with a narrow top, that so it may garde it selfe the better from the raine: and although there come no raine, yet it will be good to make these great stoukes; to the ende that such moisture as is still remaining within the hay, may be dried and breathed out. And therefore skilfull hindes, although it were already brought home and close set vnder some couer, would not lay it into the barnes or hay-stackes, before it haue beene a certaine time in these stoukes, for to heate and sweate, and as it were to boile together againe and after to be come cold, when it is laide vp in the barne or hay loft, it must be couered very well with drie straw, the depth of a fadome, as well to keepe it from heate, as from the stinking aire of the beast houses, because the straw will draw all these inconueniences into it. Moreouer though your medowes be mowed downe, you must not cease notwithstanding about the middest of September to mow them againe as well in respect of the latter hay growing after the first mowing of them, as also in respect of the grasse which shall haue

escaped

escaped your sieth in the first mowing of them.

If by the gathering of your hay you perceiue your meadowes to become barren, whether it happen by your negligence in not hauing beene carefull enough in husbanding of them: or by reason of age, seeing the earth will sometimes rest it selfe as being wearie: for the recouering of the strength againe, vse the like meanes, that you would in making of new meadowes; set downe before in the second chapter of this booke: or else if you see that you loose your labour in renewing of your barren meadowes; set downe with your selfe to reduce them into arable ground, especially those which are drie, parched, bringing foorth very small store of grasse, growne ouer with a hard crust and fraught rather with naughtie weeds, than good and profitable grasse. For the doing whereof you must cut the vpper face and crust of the earth in Aprill, with a shallow delfe, in turfes some fadom and a halfe long, and halfe as broad, and to the thickneſſe of two fingers: drie these turfes in the sunne, and being concocted by the heate of the sunne, fit them one to another, and lay one vpon another, in maner of a furnace: afterward set fire to them with good store of straw: when they are burned, let them coole sixe or seuen daies: after spread the ashes thereof equallie all ouer the field: then looke for a good raine in May, to incorporate this ashie earth, and when it is accordingly performed then plow it vp in Iune, and presently after sow it with millet, afterward with rie, and in the ende with mastling and wheat.

The seuenth Chapter.

Of the Ozier plot.

THree thinges carefully kept and increased by the diligence of the workeman, doe make rich without any great trauell: that is to say, the meadow-grounds, the Ozier plot, and the willow plot, which by the meanes of water lightly sliding through the veines of the earth in the fat and well liking places that are vpon the sides of hils, and by the watering of manifold streames round about doe naturally grow euerie yeere, and yeeld great profit vnto their master, for the feeding of his cattell, the making of hoopes for vessell and binding of them, as also for fewell, the benefite of poles, woodden vessels, arbours, stakes for hedges, and supporters for vines. We will therefore speake first of the ordering and husbanding of the Ozier plot, and after it of the willow plot, which we do not dreame to haue any other assigned place, then about the meadowes, and far remooued from the arable ground; in as much as their shadow is so hurtfull to wheate, lime, pulse and other graine, as that they neuer growe well, where they are ouershadowed by these: but on the contrarie

meadow

meadow ground receiue great profit thereby : as well becauſe that graſſe doth grow the fairer and more pleaſantly in the ſhadow, then where it is not ſhadowed, as alſo for that the leaues of ozier, willow, aller and ſuch other trees, falling vpon the meadowes and there rotting, maketh them the more fat, abounding in graſſe and fertile. The ozier then (which olde writers doe call ſea willow or wicker tree, that is to ſay apt to bende) deſireth not to come very neere to the water, but loueth rather to ſtand vpon the deſcending ſide of the valley, and the ozier plot would ende at the ſides of the willow plot : the ozier plot muſt be prickt with a line, and prettie ſmall ditches drawne out in it betwixt two lines, and euery ſlip muſt be ſet one from an other about fiue foot and a halfe, to giue them their ſpreading. It will not abide the ſhadow of any tree, but loueth much to haue the fruition of the South ſun. The tame red ozier, requireth greater husbanding, and is a fraid of froſts and the ſhowres of raine that fall in March, and very cold water : the white and the greene ozier, which neither bend nor yet defend themſelues ſo well, are of a harder nature, and grow higher. It will be good to pricke downe moe of the tame one then of the other and alwaies to ſet them out of the ſhadow, and there muſt be but a little water at their foote, the moſt part of the time : wherefore you muſt make furrowes by the way, to keepe and reſerue water. It muſt be dreſſed twiſe in a yeere to make it grow well, that is to ſay, about mid Maie and towardes the end of Nouember preſently after that it is gathered, being alſo the time of planting of it.

It is very delightſome vnto it to haue the earth raiſed with the ſpade and ſtirred, and to caſt in againe the cloddes vnto the foote ſome fifteene daies after *S. Michael*, which is the time of gathering them and making of them vp into bottles. You muſt keepe your bottles made of the thicknes of a fadome, freſh and coole in ſome cellar or caue, and if the ſeaſon be drie to water them throughout now and then : ſome ſlip off the leaues in gathering of them, thereof to make good aſhes : other let the leaues fall of themſelues, and after gather them for the houſhold, and in winter nightes by the fire ſide make the ſlaues ſpend their time in cleauing them, for to make baskets of. Some doe not cut the oziers all from the head, but ſuch ſlips as are about the edges of it, and leaue the maſter twig to ſtand whole for fiue or ſixe yeeres, when it muſt be renewed and pricked downe againe: for this is the terme of the plant : for in all the time following the plant doth nothing but drie and the twig harden.

The eight Chapter.

Of the willow plot.

THE willow plot craueth the like husbandrie that the ozier plot, becauſe the willow differeth onely from the ozier in vſe, bignes and

and barke: for the willow tree is for poles, the ozier (as hath beene said) for bindings about the vine and caske: the willow is thicke and growing taller, the ozier is smaller and lower: the willow tree hath a barke of a darke purple colour, the ozier of a yellow straw colour. But whatsoeuer it is, the willow loueth waterie places and is planted of the tops cut off, or else of poles: the poles are taken from aboue, of a good thicknes, but notwithstanding not thicker then the arme, and they must be planted and pricked downe in the earth so deepe as they should stand before they touch the firme ground: the cut of the top may be of the length of a foote and a halfe, and be set in the earth, being couered a little. That which you shall plant, must be cut from the tree verie drie, because it will not thriue if it be wet when it is cut. Therefore you must shun rainie daies in the cutting of your willowes. The best time of planting the willow is in Februarie in the beginning, or in the end of Ianuarie, when as the hart of the great cold is broken, which oftentimes hurteth this plant when it is newlie planted: It is true that it may be planted at any time after the beginning of November, yea it may be then both planted and gathered. The plants shall euerie one stand from another sixe foote square, and they must be carefully husbanded for the first three yeeres as if they were yoong vines. You shall finde a larger discourse of the willow tree in the sixth booke. The destilled water of willowes is good to be drunke for the staying of all sortes of fluxes of bloud: the decoction of the leaues or the lee made of the ashes of the wood being drunke, doth kill bloud-suckers which hang in the throat.

The ninth Chapter.

Of the elme.

MEN of old time did much esteeme the elme for the vine sake, because they married the vine vnto the elme, as also it is yet practised of some vnto this day in Italie, but now the elme is applied to another manner of vse by the husbandman: and for that cause we haue giuen in charge to euerie housholder to plant a plot of elmes, at the end of his orchard, as well to make fagots of, as to make wheeles and axletrees of for his cartes and ploughes, as also for fire wood and other easements, besides the pleasure, that the elme tree affoordeth all the sommer long. For the planting then of your elme-plot make choise of a fat peece of ground, and withall somwhat moist (although this tree be easie to grow in anie kinde of ground) which you shall dig and cast breaking the clods afterward verie small, in so much as that you shall make all the earth as it were dust, and in the spring you shall harrow it and lay it euen: afterward you shall sowe it verie thicke with the seede of elmes, which shall by this time be come

The vine married vnto the elme.

a little red, having beene a long time in the sunne, and yet notwithstanding retaining his naturall substance and moisture: and you shall sow it so thicke as that all the earth shall be couered with it, then cast of fine mould vpon it, good two fingers thick and water it a little, and couer the earth with strawe or broken boughes and branches, to the end that what shall come out of the earth may not be deuoured of birds. And when the sciences shall begin to shew, take away the strawe and boughes, and pull vp the bad weedes verie carefully with your hands, in such sort as that the small rootes of the elmes which as yet are tender, be not pluckt vp therewithall. The waies and squares must be so discreetly cast, as that he which is to weede them may easily reach to the midst of them euerie way. For if they were too broad then he should be constrained in pulling vp the weeds to tread the earth with his feete, by which meanes the shootes might be hurt. After when the branches are put vp some three foote high to take them vp from their nurserie, and to plant them in another ground, and after that to transplant them againe. The elme tree also may be planted of small branches taken from great elmes, and that a great deale better in Autumne than in the spring time: after three yeeres passed, they must be transplanted and that after Autumne, when as the earth beginneth to be moist vntil the beginning of the spring, as being the time when the roote may be drawen without leauing of the barke behinde: you may plant an elme at euerie forty foots end, and not touch them at all for two yeeres after: which being passed, you must dig the earth all about the bodie of the tree, pruning and picking it with a small handbill, euerie two yeeres. We will make no longer description of the elme: but send you to the sixth booke, where you shall find particularly and amply declared, how this tree is to be planted, and in what soile it doth principally delight to grow.

The tenth Chapter.

Of the aller.

THE aller or alder tree is no lesse profitable for the husbandman, then the elme, in as much as the wood of aller doth serue to make many implements and working tooles, as ladders, railes for the cart, poles, handles for tooles, rackes for horse-meate, and such other things. To lay the foundations of buildings vpon, which are laide in the riuers, fennes or other standing waters, because it neuer rotteth in the water, but lasteth as it were for euer, and beareth vp marueilous strange and huge masses.

The aller therefore shall be planted neere some little brooke, in some moist and watersh meadowes: for the aller tree naturally delighteth in water more then any other tree doth, and it looketh that

the

the most part of his rootes should be in and lower then the water, for else it will not come to any growth. The aller is not sowen because it beareth no seede, fruite or flowers: yet it may be planted two waies, either of branches taken from the great trees, or else of liue rootes drawne out of moist places their earth with them, and so set in another moist place, and that in such sort, as that at the least the one halfe of his rootes may be lower then the water, and couered aboue with earth a fingers thicknes: and withall before it be planted you must cut the small branches awaie till within a finger of the maine roote, which afterward will shoote vp manie small sciences. This tree is easie to take and grow againe in moist places, because it hath much pith in it, and putteth foorth much wood in a short time. You may make your aller to grow high in anie place without any great labour, and to small profit because it would neede continuall watering. It is better then that your aller stand in a waterie ground (as we haue said) that so it may both please and profit you. See further of the aller tree in the sixth booke. The fresh leaues do staie inflammations: being put vnder the naked soles of the feete, they greatly take away their wearisomnes, which by far walking haue wearied themselues: full and all moist with the morning deaw, being spred in sommer all ouer a chamber, they kill fleas. The barke serueth to make inke, and to die leather blacke.

The poole, fishpond, and ditch for fish.

The eleuenth Chapter.

Of the manner of making stewes and pooles for fishes.

THe chiefe and principall point of a good countrie farme is to want nothing either needfull for the prouision of the chiefe Lord: or auaileable for the profite that may come thereof. The good housholder then shall not esteeme a little of fish, seeing that of them he may make both prouision for his table, and great gain to his purse, but rather shall prouide some place neere vnto his house, for to cast pooles or stewes in, to the end that when need is, he may finde vittailes therein, both for himselfe and his familie, and that as readie as if it were alreadie in a safe, or in the kitchin, besides what he may yeerely sell of that his store to make monie into his purse. Therefore for the appointing out of ground for these his pooles or stewes to breed or feede his fish in, he shall choose it ioyning vnto his meadowes, in some leane place, and such as he could otherwise make no profite of, and yet it must be in a firme ground, that is gruelly or sandie, for such places doe feede fishes excellent well; notwithstanding *The situation of the pooles.*

that the muddie and dirtie poole be best for the tench, burbet, cod, eele, and such other slipperie and slimie fishes: but he that loueth his health must not furnish his pooles or stewes with such manner of fish. The poole shall be marueilously well seated, if the commodiousnes of the place will afoord it continuall refreshment from some flowing fountaine, or some brooke, or little riuer falling into it, whereby continually the first water may be remooued, and new supplied in place thereof, not suffering the other to stande too long impounded: and therefore if it be possible, the poole is to haue conuenient issue in one part or other, for so by this means the water is renewed the more easily, and the fish therein made the more cheerefull and better thriuing to euerie bodies sight: whereas on the contrarie the standing and corrupted water afoordeth them nothing but bad nourishment, making the flesh thereof of an ill taste, and vnpleasant in eating. In the meane time you must not forget to set grates of brasse or iron close fastned and pearced but with small holes in the conduits, that so by them the water may finde one passage in, and another out, aud yet to staie the fish for getting foorth: it will be good that the poole be large and great, to the end that the fish which is kept therein may finde roome to sport themselues, without perceiuing of anie impediment or imprisonment that they sustaine. It will be good also to make in these pooles some corners or starting holes, like little lodging roomes in the wall thereof, to the end that thereby the fish may finde place for to hide it selfe, and to auoide the great heate of the sommer: prouided notwithstanding that they be so made as that the water which is in them may easily get out againe.

The twelfth Chapter.

What manner of wilde flesh is to be prouided for the furnishing of the fishpoole.

ONe great commendation belonging to inheritances is to haue wilde flesh and fish in the fieldes thereto belonging. As concerning the wilde flesh, the walkes thereof are partly in the woodes, and partly in the warrens, of which we will speake in their place: partly in the arable groundes and fallowes, as the great and little hare, the partridge, quaile, and larke: and part in the woode, as the hart, the hinde, the doe, and the wilde bore: and as concerning birds, the stockedoue, turtle, small hen, plouer, and others: but to returne to our fishpoole, the wilde flesh thereof (especially of birdes) is the swan, the heron, the woodcocke, snite, mallarde, teale, yoong wilde duckes, the wilde goose and the bittor. Besides there are belonging thereto as concerning beasts, such as auncient writers haue called double liued beasts, that is to say, such as liue either in or out of the

The wild flesh of the fishpoole.

Beasts of a two fold life.

the water, the otter, the badger (which verily hath a scalie taile like fishes) the beauer, and the dormouse, vnto which we will adde the torteise, that daintie dish for princes and great lords: albeit the most commendable of them, and which hath the best relish, and in most request, is that which is called the wood torteise, and maketh her borough in the woods, the wealth of *Prouence* and *Languedoc*.

The thirteenth Chapter.

Of the sortes of fishes wherewith pooles, pondes, and ditches, are to be furnished.

TO furnish your fish pooles and feeding stewes, it is needfull that you carefully consider the nature of the place wherein you haue made them: for all sorts of fishes do not feede alike in all manner of places: the stonie and rockie places do like well the fishes called therupon *Saxatiles*, or fishes liuing in stonie places, as the troute, pearch, loach, lumpe, mullet, and gudgeons. In muckie and slimie places, the tench, bourbet, codfish, and eele, do delight to liue. In grauellie and sandie grounds, the salmon, the pike, and the barbel, do not much dislike to liue. Wherefore to the ende that we may speake generally: in regard of the fish of pooles, pondes, or ditches (things common amongst the inhabitants of *Beaux*, though they haue no such store of water as the people of *Salongne*, *Percheron*, *Turraigne*, *Anion*, or *Mantz*) the most common and which best store and furnish the same, are the carp and the barbell. *Carps.* *Barbell.* It is true that the pike is a good meate, especially if he be kept in springing waters, and into which there runneth some riuer (as the poole of *Nau*, or *Nouë*, as also that of *Gounieux*, the two most naturall and greatest pooles that are in all Fraunce, and such as neuer drie vp) but in keeping of him there is this danger, namely, that he is a very tyrant amongst all fresh water fish, eating and deuouring the small thereof, in such sort as that in fishing there is not a little one of that kinde cast into the pooles againe, after they be once drawne out, which yet is vsed in the little ones of all other kinds besides. *Famous pooles.* *The pooles of Nouë and Gounieu.* The small fish which is called white, are the pearch, the mullet, the millers thombe, the cheuin, gudgeon, loach, menuise, and the trout, albeit that the forenrost are those which are the most daintie, and chiefest in request for sicke and delicate folkes, but the trout is the princeliest and most delicate dish of all the rest, which is neuer found but in running waters, or in great springs. The salmon-trout is a very daintie thing, and so likewise the flesh thereof is more fast and red, euen after the manner of the salmon, after whom he had his name giuen. The tench, bourbet, and cod, are of a courser and more slimie meate, as is also the eele, which yet prooueth singular good in great pooles, and greatly commended being taken in that of *Nouë*, and at *White fish.* *The trout.* *Tench.* *Eele.*

Eele ponds. the milles of *Gouuioux:* witnes hereof are the eelepondes which haue beene cauſed to bee made there by Princes, and therefore that of *Noue* ſeemeth to me to bee of greater account, becauſe of the cauſey belonging thereunto: but there are ſome which diſdaine the eating of the eele in reſpect of the vnſauorines of hir fleſh, and alſo becauſe (as *The lamprey a venemous fiſh in the ſea.* ſome ſay) ſhe coupleth with the ſnake. But whatſoeuer the matter is, I finde her as good in a ſwift running water, as either the lampreie or lamperne a venemous fiſh in the ſea, though when ſhe is ſhoured and come vp into the great riuers, as *Loire*, ſhe become a good firme nouriſhment, ſaue that it is ſomewhat ſlimie, and of hard digeſtion, how well ſoeuer it be dreſſed and handled.

The excrements of the poole are the frog and the creuiſſe. The excrements of the poole (which are eaten after the manner of fiſh) are the frogge and the creuiſſe, the firſt whereof being taken in his ſeaſon, as when ſhe is not ingendring, but well fleſht and liking, doth taſte like a little chicken: the other doth more load the ſtomacke then nouriſh; and yet vnto the husbandman and farmer this is as a ſecond manna for his familie, which on feſtiuall daies delight themſelues with the taking of them with the long bowe net, or with a little maunde of bulruſhes, as alſo the little fiſh with the ſhouenet, *Sorts of fiſhing forbidden.* ſmall net, called a truble and line; for the fire, the tunnell and baite are forbidden by all right. The net and the hooke are chiefe and principall of all the reſt.

The foureteenth Chapter.

That fiſh pooles muſt be looked vnto, and the ſides thereof repaired.

BVT and if you minde to reape any profit by your fiſh pooles or fiſh ditches, you muſt haue care to lay them drie euery ſix yeere at the leaſt, and to dreſſe them euery three yeere taking away the reedes, bulruſhes, and broad leaues of water lillies, and other water flowers, for theſe hinder the fiſh that they cannot ſport themſelues, *To banſh water rats,* and maketh them eate muddely and of a bad taſt. You muſt likewiſe chaſe and driue away water rats, or elſe take them with ſome engine: *Not to ſhoote about fiſhpooles at wild fowle.* as alſo the otter and beauer, as mightie ſpoylers of the fiſh pooles: theſe two tyrants are founde in greater number in *Lorraine*, then in our true and naturall countrie of Fraunce. Furthermore you muſt haue care that there bee not much ſhooting in gunnes at the wilde fowle which is found to haunt therein, becauſe ſuch ſhooting aſtoniſheth the fiſh and killeth it oftentimes. Againe there are other means *Guns cauſe fiſh to die.* for the taking of ſuch wilde fleſh: neither is the croſſe-bow ſo dangerous, whether it bee the tiller, or the bullet. It is true that the longbow is the moſt ſingular of all, & performeth the action of killing as well as the turkiſh bow, when it is drawne luſtely and by one which hath

hath a good sight.

The greatest charges of the fish poole is the keeping of the banks and causey, the water stops, sluces and ditch ouer against the poole, made for the receiuing of the water during the time of the fishing, as also to rid it of mud and vnprofitable weedes, as being the cause that the water when it is not of any strong current, becommeth couered as it were with earth: yea and though it be of a good fresh spring, yet they are the meanes of the stopping and driyng vp of those springes, and to cause them to diuert and turne their courses an other way: wherefore all good house-holders must be furnished with iron to repaire the grates and flints and hard stone for the maintenance of the causey. *The rayssing of the sides or bankes of the fishpoole.*

As concerning the pondes and ditches for fishes they must be often dressed, repleniished with new store, and refreshed with small ware: for to be alwaies taken away and neuer adding any thing to, doth pull downe the greatest heapes of store. Againe the good farmer is carefull and diligent alwaies in his taking of fish, to cast the small backe againe into the water, and not to kill them out right if he can auoide it: It is true that for further profit and thrift, he vseth to pricke about such ditch or pond great plentie of willowes, and some also doe plant the aller and elme, in the same place: for to gather firewood of for the household: others againe doe plant the aspe & poplar tree, and euery one of these, according as they find their ground best disposed to beare the one or the other. *Fishponds and fish ditches.*

The fifteenth Chapter.

Of the feeding of fishes in their pooles, ponds, and ditches.

IT is most certaine that the fishes abiding in the sea, or streames and running riuers, haue greater store of vittaile, then those which are shut vp in pooles, ponds, ditches and stewes: for such as haue their full scope of libertie in the sea and streames, doe alwaies meete with one relieue or other brought vnto thē by the course of the water, besides the small fishes which are the foode and sustenance of the greater: but the other shut vp and inclosed in safegard, cannot goe foorth a hunting after any pray. It will be good therefore sometimes to cast them in of all sorts of small fishes, the bowels and entrailes of great fish, tender figges cut downe, crackt walnuts, soft ceruises boiled, fresh cheese, lumpes of whit, bread certaine fruits chopt small, all sortes of salt fish and such other like victuall: for & if the fish be not fed and made fat with meat which the housholder or farmer shall giue vnto them, when they shal be carried either to hall or market (for my meaning is that the good farmer should make his profit of all things)

the leannes thereof will manifeſt, rhat they were not taken in any full ſea at their libertie, but in ſome place of gard and reſtraint, and ſo they will not ſell ſo deere by much. And ſometimes it will be good to caſt vpon the pooles and pondes the freſh leaues of parſly, for thoſe leaues doe reioice and refreſh the fiſhes that are ſicke.

The ſixteenth Chapter.

The fiſhing of all ſorts of fiſh.

THE fiſhing or taking of fiſh is diuers according to the riuers and waters wherein they keepe, as alſo in reſpect of the diuerſitie of the fiſhes themſelues: for the fiſhing in the ſea and that in freſh water is not all one, but ſeuerall and diuers: the great fiſhes one way, the Eele another way, the pike another way, and the carpe is taken another way. But whereas it might fall out that ſuch variable manner of fiſhing might be very difficult and long to deſcribe, we will leaue this knowledge to ſuch as make account to ſell and buy fiſh: we will onely declare for the benefit of the houſholder, that the chiefeſt and moſt principall waies to take fiſh are either in the maund, or with the caſting net, or with the line, or with nets or with the hooke. The nets do heape together greateſt ſtore of fiſh, but they are chargeable to maintaine: the caſting net is of the ſame condition: the line and hook are the moſt ingenious and wittie, but leaſt profitable and of ſlendereſt reward.

The time to take fiſh.

The fitteſt time to go a fiſhing in Autumne is after ſun ſet, and then principally when it is betwixt night and day, for then fiſhes are ſlumbring and that ſo deepely, as that they may be taken at their reſt, with light and flaming torches. In winter the fitteſt time to fiſh in, is about noone: in the ſpring time all the day long, but chieflie before the ſun riſe, which ſpring time is the moſt fit of all other times for fiſhing, in as much as then the water being warme, and the fiſh ſtirred vp to ingender, they riſe from the bottome of the depthes, to the vppermoſt part of the waters, yea oftentimes to the very edges thereof: the worſt and moſt vnfit time of all other is the ſummer, eſpecially whiles the dog daies laſt, the heate whereof cauſeth the fiſh to die, and conſtraineth it to betake it ſelfe to the bottome of the depths: ſo that if you would fiſh in ſommer it muſt be in the night ſeaſon. In fiſhing you are to haue regard vnto the winde: ſo that when the North wind bloweth you muſt turne your nets toward the South winde, and the South wined blowing toward the North winde: in like manner when the Weſterne wind bloweth, your nets muſt be turned toward the Eaſt and contrarily: but before all things, fiſhing muſt be gone about in a calme time when there is not any tempeſt abroad.

For to gather fiſh together into one place: Take penni-royall ſa-

uory,

norie, organie, and merierom, of euery one the weight of three french crownes, of the barke of the frankincense and myrrhe tree, of each one ounce: of sweete cherries dryed and infused in good wine halfe a pound: of a hogs liuer rosted, of goats grease & garlike of ech a pound: stamp euery one by it selfe and after put thereto some fine grauell, with this mixt together, you shall feede the fish for some hower or two before you cast in your net, which when at such time you haue cast in, you shall therewith compasse the place about. *To gather the fish together into one place.*

To catch all sortes of fish: Take sheepes suet, of burnt sesamum, garlike, organie, thyme, and dried marierom, of euery one a sufficient competent quantitie, stampe them with the crums of bread and wine, giue of this composition to the fish to eate. Or else take sweete cherries dried, and braing them, make pilles thereof to giue vnto fishes: Or make a meate with vnquenched lyme, old cheese and rams suet: cast this vnto the water and presently you shall see the fish flote, and lie still vpon the water. Fishermen to catch small fish with the line doe baite hookes with small earth wormes: whereof the fish are very desirous and greedie. Otherwise: Take the Indian shell, cumin, old cheese, flower of wheate, kneade them al together with wine, make pilles thereof as great as small peason: cast them into the riuer, when the water shall be quiet and calme, all the fish that shall taste of this confection as though they were drunke and besotted, will run to the brinke of the riuer, and so as that you may take them vp with your hand: or else make a confection with the round roote of birthwort brused, or sowes bread and vnquenched lime; cast vpon the water some portion of this confection, the fishes will hasten vnto it presently, and hauing tasted thereof will die sodainely. *To catch all sortes of fishes.*

To take small fishes: Take the flesh of a snaile without a taile, and thereof make a bait, and put not on any more then one little snaile at a time: or else take the flesh & blood of a calfe well pounded: put it in a vessell and so leaue it by the space of ten daies: afterward vse it to make baites of. Otherwise: Take sweete cherries dryed, and bray them making pilles thereof, which you shall cast vnto the fishes. *To take small fishes.*

Take sal ammoniack an ounce: onions, the weight of a french crowne, of the fat of a calfe the weight of six crownes: make pilles thereof after the fashion of beanes, and offring them to torteises, they will come to the smell, and so be taken. *To intrap and take torteises with baite.*

For the cuttle fishes: Take the lees of strong wine, and mixe them with oile, and casting it into a place, where you know that the cuttle hath cast her blacke and shadowing humour, shee will come to the place where the oile is, and so you may take hir. Or else take sal ammoniack two ounces, goates butter an ounce: stampe them all and make little soft loaues thereof: wherewith annoint some kinde of corne, or little clothes that are not fringed, for so it will come to passe *To catch the cuttle fish.*

that

that the cuttle will feede round about them, and not ſtir away, ſo that you may take them preſently.

To fiſh for and to take loches.

To take loches: Take the bran of wheate two pound, of whole lintiles halfe a pound: mingle them together, and bray them with a ſufficient quantitie of ſalt brine: after, put therto halfe a pound of Seſamum, of which you muſt caſt about you ſome here & ſome there, for ſo ſoone as you haue caſt it frō you all the ſmal fiſh will haſten vnto it: and which is more they will flocke together into one place, though they be ſixe hundred paces off. Or elſe take neats blood, goats blood, ſheepes blood and ſwines blood, and the dung which is in the ſmall guts of a hog, thyme, organie, penniroyall, ſauorie, marierome, garlicke, and the lees of wine of each a like, of the greaſes of the ſame beaſtes, ſo much as you ſhall ſee to be inough, ſtampe euerie thing by it ſelfe: after mixe them together, and make pils thereof to caſt into the place whither you would haue the fiſh to flock, and that an hower before you caſt in your net. Otherwiſe: take the bloud of a blacke goate and barly flowre, of each alike, bray them both with the lungs of the goate cut very ſmall, make pils to vſe after the manner aforeſaid. Otherwiſe: take garlicke halfe a pound, burnt ſeſamum as much, penniroyall, organie, thyme, marierome, ſauorie, and wilde ſtaueſacre, of each fower ounces, of barlie flower a pound, of the dough as much, and of the barke of frankincenſe tree two ounces; mingle all together with bran, and giue it vnto the fiſhes.

To fiſh for pearches.

To catch pearches: the pearch is not eaſily taken with nets, neither yet at the weyres, but rather with a proper baite, and that in a pudlie and troubled water: wherefore you muſt make a baite with the liuer of a goate, and baite your hooke therewith. Or elſe: take yellow butterflies, and cheeſe of goates milke, of each halfe an ounce, of opopanax, the weight of two French crownes, of ſwines blood halfe an ounce, and of galbanum as much; powne them all well and mingle them together, powring vpon them neat red wine, and make thereof ſuch little loaues, as you vſe to make perfumes into, and drie them in the ſhadow.

To take ſalmons.

For to take ſalmons as well of the riuer as of the ſea: Take of the teſticles or ſtones of a cocke, one ounce, of pine apple kernels burned, two ounces, bray them both together till they come to the forme of a powder. Otherwiſe: Take wilde rue ſeede, and the fat of a calfe, of each an ounce, of ſeſamum two ounces: ſtampe them all and make little loaues, which you ſhall vſe.

To take trouts.

The trouts which are a kinde of ſalmon, are taken with the hand, hauing betaken themſelues into their holes, or with nets, or at weyres, and ſometime with the light of a candle.

The gudgeon. The carpe.

The gudgeon is taken with a hooke or the little net called a truble. The carpe is taken with the net hooke or engines laid at weyres:

but

but she oftentimes deceiueth the net, shooving her head downe into the mud or mire, wherein she delighteth.

The end of the fourth Booke.

THE FIFTH BOOKE OF THE COVNTRIE HOVSE.

Of arable grounds.

The measuring of lands of what sort or forme soeuer they be.

The first Chapter.

Of the common measures whereby things are measured.

NOtwithstanding that the arte of measuring grounds belongeth to the Geometrician more than vnto husbandmen: and euen as chiefe masons & master builders, who ought to haue the skill of measuring, do not vouchsafe at any time to measure the workes and buildinges which they haue set vp and finished, but leaue the same for such as make profession of measuring: so it may seeme that this is no duty of the husbandmans, to measure out his grounds, but rather appertaining, and therefore to be expected of them which practise such art and skil: notwithstanding being desirous that the master of this our countrie farm should not be ignorãt of any thing, which may serue for the inriching of his house & increase of his wealth, I haue thought it meete and reasonable before I passe any further vnto my purposed discourse of the tilling of corne ground, familiarly to vnfold certaine rules of measuring, very common with vs heere in France, and wherewith the farmer in case of necessitie and for his commoditie may helpe himselfe.

To begin therefore with the matter, all grounds and lands, whether they be meadowes, vineyards, woods, iles of water, courts, gardens, corn ground, places, fields and others whatsoeuer are measured in France by the foote, fadome and pole. The foote according to the kings measure containeth throughout all France twelue inches: the inch

The measures in France called the kings measures.

The kings foot.

Inch. such twelue lines, and euerie line must be of equall length to the thicknes of a barlie corne that is full and well fed. A tierce or third part of a foote is called a dour: the fourth part is called a quarter. The fadom and pole are measured by the foote, but how many feete the one and the other should containe, there is not any so sure and certaine a rule which holdeth through all France, as there is for the foote, by reason of the variety of measures, and those not in diuers countries of France onelie, as in *Britaine*, *Normandie*, *Gascoine*, *Poictou*, and others: but also euen in places situate within some one isle of France and standing hard together, as may easily be seene neere vnto *Paris*; in such sort as that the fadome of some countries, containeth six foote and eight inches: and the pole, twentie foote: elsewhere the fadome containeth seuen foote and foure inches, and the pole two and twentie foote: In manie places the fadome containeth sixe foote, and the pole eighteen foote: In others againe the fadome containeth sixe foote fiue inches and halfe an inch or thereabout, and the pole nineteene foote and one dour which is fower inches. True it is that as the rule is certaine through all France, that a foote containeth twelue inches, so it is as sure and inuiolable that a pole containeth three fadome: wherefore without standing much vpon the fadome (which in truth is a measure more fit for masons and carpenters, then for measurers of ground) for the well measuring of all sortes of groundes, you must content your selfe with two principall measures the foote and the pole, not forgetting or omitting your inches, quarters, and thirds which are partes of a foote. Which more is in as much as feete, fadomes and poles are but small measures, & such as wherof might rise as it were an infinit number, or at the least a very troublesome number & such a one, as the reckoning wherof could hardly be kept, especially when there is need of measuring a wood, meadowes, places, isles, arable ground and other places of great compasse, besides the foote, fadome and pole, there is vsed another measure, which the Frenchmen call an Arpent, but of the people of *Burgundie* and *Champagnie* and manie others *Iournaux*, deriued from the Latine worde *Iugerum*, which contayneth as much ground as two oxen or horse coupled or yoked together can till in one day. The Normans call it an acre taken from the Romaine worde *Actus*. This measure ariseth of manie poles put one to another or multiplied together, as the poles doe rise of manie feete multiplied. It is verie true that euen as the pole doth not holde throughout all France one measure of feete, so neither doth the Arpent consist infallibly of one number of poles, but looke almost how manie countries there are, euen for so many differences of sortes of arpents: and that it is so; there are to be noted amongst many other, fower sortes of this measure called the arpent, as must accustomed to bee vsed. The first is called the kings arpent, and it is vsed of men ordinarily about

The dour.
The quarter.
The fodome.
The pole.

the

the measuring of woods, and it consisteth of two and twentie foote to the pole, twelue inches to the foote, and a hundred poles to the arpent. The second is more common consisting of twentie foote for a pole, twelue inches for a foote, and a hundred poles for an arpent. The third is the least vsual of al, it consisteth of nineteene foot and a third, which are fower inches in euerie pole, twelue inches to a foote, and a hundred poles to an arpent. The fourth is most common of them al, consisting of eighteene foote for euerie pole, twelue inches for euerie foote, and a hundred poles for euerie arpent: because of such great diuersities of measures of the arpent, the measurer shall not of necessitie be put beside the right performing of his worke, for before he begin to measure, he shal diligently and wisely inquire of the measure holding by the custome of the countrie, in the place where he is called for to measure. Furthermore you must know that the arpent may be deuided into many partes, as the halfe arpent, a tierce, a fourth, a halfe fourth, a halfe tierce: all which containe euerie one according to his proportion, so much as the whole arpent conteineth.

The instrument and persons required as necessarie to helpe to make measure.

The measurer must be prouided of ten or twelue arrowes, otherwise called little broches or prickes, bicause they are prickt downe in the earth, to guide the chaine, they are made of wood but harnessed at the neather end, with a sharpe pointed end of iron, of length two foote, or thereabout: and of such thicknes, all the ten or twelue togither, as that a boie of fifteene yeeres old, may easily hold them in his fiste. We haue saide that he must haue some ten or twelue: that is to saie ten, when the measurer doth vse his geometricall staffe in steede of one sticke, or eleuen when he doth not vse his staffe. The second instrument very necessarily required for the measurer to measure assuredly, that is to say, not to faile in his feete & poles, and in the number of them is the *Richards* chaine made of iron, rather then of coard, (because coard is apt to stretch, not keeping his exact length constantly at all times,) sufficient strong and thicke, distinguished and diuided by round buckles or nailes at the end of euery foote, to the end it may be folded vp together, the more easily into one: it must be of the length of a pole, according to the custome of measuring in France, or of two or three poles, more or lesse, according to the aduise of the measurer, and custome of the countrie, and haue in the end of euery length a ring, or round hoope, so wide and great, as that the middle finger either of the measurer or of his assistant may freely goe through it, without anymanner of force or violence vsed. Besides, the said chaine; must (if a man be so disposed) be marked by the way,

that

(that is to say) into tierces and fourths, with some mailes differing from the mailes of the chaine, by them the better to know the tierces and fourths. And as for the measurer he must haue three or fower foote length of chaine to reserue vnto himselfe about his spade, or in some little bagge of leather, that so (if neede be) he may lengthen the chaine, or else helpe to make it againe, if in case it shoulde breake. In the figure or picture following you may see the shafts in a bundle by themselues, and the chaine gathered vp togither by it selfe.

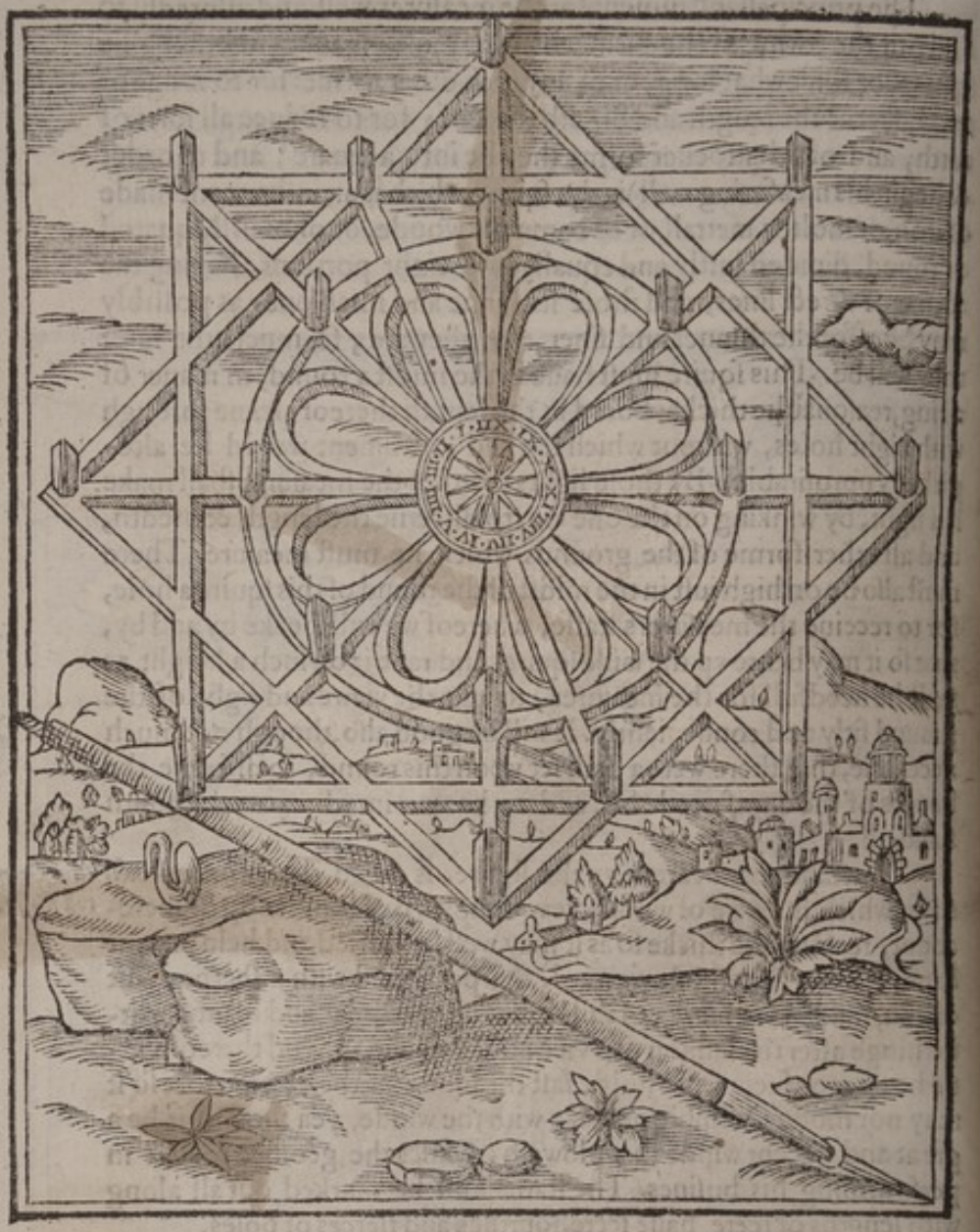
The

The principall instrument for the measurer well and assuredly to find out the forme of the earth which he must measure (whether it be square, or somewhat long, or of any such other forme: for to iudge of and discerne the length and bredth thereof: for to reduce all sorts of earth, and of whatsoeuer forme they be into a square; and to order & begin his measuring well) is the squire, which is an instrument made of iron, or molten mettall, or of common woode, or of brasill, squared or round, diuided iustly and equally into eight portions, hauing the forme of direct lines, and those such fine and small ones, as possibly may be; for the thinner and finer that they are, so much the surer they will be. This squire must haue in the midst a round, in maner of a ring, reasonablie thicke; bored in the length thereof cleane through with eight holes, without which the said instrument would be altogither vnprofitable. By those lights or holes the measurer shall make his sight, by winking on the one eie, to discerne the length & bredth, and all other forme of the grounds which he must measure. There must also be on high iust in the midst of the round of this squire a hole, for to receiue the measurers staffe, whereof we will speake by and by, that so it may beare vp the saide squire, and raise it on such a height as shall be needfull for the measurer, to take the viewe and sight of the ground fitly and conueniently. It will be good also, though not much necessarie, that there were a diall set vpon this round, to discerne the houres of the day if neede be: and to knowe in what part the south standeth.

The staffe that beareth vp the squire, is called the geometricall staffe, which must be of wood, very straight, sixe foote long or thereabout, reasonablie thicke so as it may well be carried and held in your hand, hauing the end downward, sharpe & shod with a sharpe point of iron, made very hard and thicke, or else of copper, and hauing a little hinge after the fashion of a vice aboue, and in the end thereof a little hoope to receiue and holde fast the squire set thereupon, that so it may not moone, tremble or shake with the winde, yea though it be a great and violent winde that bloweth, whiles the geometrician is in perfourming his busines. The staffe must be marked out all along with lengths of feete, halfe feete, fourthes and tierces of poles. *The Geometricall staffe.*

In this figure you see the squire and the staffe each of them by themselues.

The



The Geometrician muſt likewiſe haue in readines two ſortes of writing tables, the one of ſlate, reaſonablie thicke, with a pen faſtned to the ſame at the end of a little ſtring, and it muſt be likewiſe of ſlate, that ſo it may not cut the ſaide tables too deepe in when he writeth vp his accounts therein with it. The other little paire of tables ſhall be of boxe, or other ſuch like matter, like vnto thoſe which are brought out of Germanie, hauing a copper pen, which the ſaid Geometrician ſhall vſe for the ſetting downe in writing: the lying, buttings, and contents of the ſaid peece of ground which he hath meaſured.

He

He must also haue two men, that is to say, one his assistant to go before him, and to carie the end of the chaine, and to thrust downe into the earth the ten or twelue shafts: and the partie whose ground is measured, or some one for him, that can laie and point out vnto the Geometrician the boundes and limits of the saide peece of ground, whether it be arable, wood, meadow, or any other such place.

How and in what manner the measurer of these grounds is to accomplish and performe his worke.

This measurer of grounds (being thus suted with all the foresaid instruments seruing for the measuring of ground, and hauing likewise the directions and assistance of others, (as hath beene saide) to helpe him about his worke) must diligently inquire of the manner, fashion, and custome of measuring in that place, and of what length his chaine must be, how many poles are contained in an arpent in that countrey, and how many foote are to goe to euery pole, seeing (as we haue saide before) almost euery countrie hath his seuerall measure: besides this, he being well instructed and taught in the boundings and limits of the peece of ground which he would measure, he must lay aside, or else at the least trusse vp his cloake very close, and place himselfe at one of the ends of the plot of ground, wood, or meadow, hauing his shaftes all of them vnder his girdle on the left side, and his squire hanging by a little crooke at his girdle on the right side: there pitch downe his geometricall staffe, making fit and faste his squire vnto the end thereof, and to assigne for his more ease the ten shaftes which he had made fast vnto the left side at his girdle, vnto that place whereas is fixed the little hinge, afterward stouping with his head, to take his sight and view by shutting the one eie, ouerthwart and within the holes or lights of the said squire the forme; and first the length by one side of the squire, afterward the bredth by the other side of the saide squire (without stirring or mouing of the squire at all from out of his place from aboue the staffe) of the peece of ground that he would measure: It is true that he shall need neither staffe nor squire if the peece of ground be square, or of a small compasse, bicause that without any such squire hee shall bee able to discerne the forme of the ground, and in such cases he shall onely vse the helpe of his shaftes, which he shall giue vnto his assistant, and of the chaine, the one end whereof he shall hold himselfe, and giue the other vnto his assistant, which shall goe before to sticke downe the shafts at each end of the chaine, both of them herein applying themselues to the same purpose alike. The assistant shall goe before, and first he shall hold in his left hand the ten shafts altogether, leauing the eleuenth with the master measurer to fasten downe in the place where he shall begin his mea-

ſuring (if ſo be that the meaſurer do not chooſe rather in ſteed thereof to vſe his ſtaffe, the ſaid aſſiſtant ſhall hold one of the ends of the chaine by the ring with the great finger of his right hande, and that without anie want of roome for his finger to goe in: he ſhall faſten downe in the earth one of his ſhafts, (which his left hand ſhall haue reached him) with his right hande, at the end of the chaine as it is ſtretched foorth at length: the ſaid maſter meaſurer ſhall follow him, and ſhall take vp the ſhaft which his aſſiſtant hath ſet downe into the earth, then the aſſiſtant ſhall proceed and go on, alwaies carying the chaine with him, and faſtning the end of the chaine which he carrieth with one of his ſhafts thruſt downe into the earth, and this ſhaft the maſter meaſurer alwaies comming after ſhall take vp, and both of them ſhall continue and holde on this courſe, the one to put downe the ſhafts, and the other to take them vp, vntill ſuch time as the chiefe meaſurer haue gathered to himſelfe all the tenne or twelue ſhaftes which will be ſo many or ſo many poles. This done, both of them ſhall go vnto two other endes of the ſaide peece of ground, and ſhall do in like manner as they did at the firſt, where when as the meaſurer hath meaſured the length of one ſide, he ſhall meaſure the one breadth, leauing the length of the other ſide, and the other bredth, hauing found out by his ſquire that the peece of ground is ſquare, if rather for his owne aſſurance and contentment of the owner he thinke it not meete to meaſure the two lengths by themſelues, and the two wideneſſes by themſelues. Whereupon it will come to paſſe that if the peece of ground or wood (for an example) containe from the one end to the other on all ſides tenne poles, multiplying the one ſide by the other, that is to ſay, ten by ten, they ſhall haue the totall ſumme of the poles of the ſquare, which will be a hundred poles, which is one arpent: and ſo heereupon the meaſurer ſhall conclude that the place doth containe an arpent. Againe, if in caſe that the place were of greater bredth and length then ten poles ſquare, they ſhall hold on their meaſuring, and paſſe from one end to the other, accounting that which ſhall be more, ſtil reducing all that they meaſure into hundreds of poles, and ſo into arpents. See heere the eaſie way for the meaſuring of lande, woods, and other places of ſmall compaſſe and ſquare, wherein there is no great need of any ſquire: but and if the peece of lande, wood, or other ſuch place be of great compaſſe and contents, and yet notwithſtanding lying ſtraight on euery ſide, as of fiue or ſixe hundred arpents or more, it will ſtand the meaſurer vpon to vſe the helpe of his ſquire, wherefore he ſhall pitch downe his geometricall ſtaffe at one of the ends of the ſaide peece, and ſhall ſet his ſquire to the top of the end of his ſtaffe, and ſhall view the other ende of the ground through the holes or lights of the ſaid ſquire, if his ſight and largenes of the place will permit him, which if it will not, then onely

ſo farre at that time as his ſight may be conueighed: vnto which place directly, whether the direct line of the ſquire doth looke, he ſhall ſend his aſſiſtant, or ſome other man to pitch downe a diameter, that is to ſay, a ſtake or pole, or ſome other certaine marke, ſo farre off as that the ſaide meaſurer may ſee it at that end of the peece where he is taking his ſight: or elſe many diameters in many places alwaies directly beholding the firſt diameter, if in caſe the peece of ground ſhould be of longer diſtance, ſo as that, one, two, or three diameters alone woulde not be ſufficient, as thoſe which the ſaide meaſurer ſhould not be able eaſily to ſee and diſcerne. The diameters one or many being thus pight, they will ſerue to helpe the meaſurer better and more eaſilie to meaſure the peece, being thereby as it were diuided into many equall portions. If it be a peece of vnderwood that one would meaſure, the meaſurer and two or three ſtoppers, doe cut downe ſo much of the ſaide vnder-wood, as may make a way of ſuch widenes, as that the meaſurer and his aſſiſtant may eaſily paſſe. But and if this be a woode of great timber trees, and of a great compaſſe and reach, the great trees ſhall ſerue for diameters. Then the direct draught being taken, and the diameters pight, and the other end of the peece of ground attained, the meaſurer ſhall giue his aſſiſtant ten ſhafts, and ſhall keepe ſtill the eleuenth, or in place thereof vſe his geometricall ſtaffe (as we haue ſaide before) and ſhall hold one of the endes of the chaine with the great finger of his right hande, as his aſſiſtant ſhall holde the other end in his right hande, and the tenne ſhaftes altogither in the left, to pitch downe one at the end of euerie chaines length: as we haue ſaide before. In this figure you may perceiue how this meaſurer and his aſſiſtant doe performe the thing.

How to reduce all ſorts of ground into a ſquare for the better meaſuring of it.

But as all grounds are not of one forme and faſhion : ſo is it not poſſible that one manner of meaſuring ſhoulde ſerue to finde out the quantitie of euerie peece : and therefore to ſpeake generally, all places and grounds are either ſquare or longer than they be broade, and then they are called ſomewhat longer then broade, but ſtretching right out or vnequal both in length and breadth, and then they be called

led somwhat long and ending like a horne, or in the forme of a wedge that is to say, a like long, but of an vnequall bredth; or of an equal triangle, or of an vnequall triangle; or rounde, or halfe rounde, or of the fashion of a bowe, or consisting of many corners, or of many fashions mixt together, or they are inclosed one within another: for the sure measuring of al which places, you must reduce them into a square, which is as *Polycletus* his rule for the well measuring of all groundes and places: the measure of square is very easie as we haue saide, that is to say, like number of poles on euerie side, which consisteth of tenne poles to a French arpent, which number being multiplied with it selfe, which is ten by ten, make the whole sum of poles, whereof an arpent consisteth, which are a hundred poles, and euery pole consisting of eighteene foote.

Groundes that are more long than broad. and yet of equall length and equall bredth on euerie side.

If then the earth be found by the measuring of the Geometrician, to be more long then broad, and yet hauing each long side equall, and each side of bredth likewise equall, which is called *Balongue droit*, for the bringing of this form into a square, you must remember (or else haue it set downe in writing tables for the better remembrance) what number of poles are in the length, and howe manie likewise in the bredth, and to multiplie the length by the bredth, that is, the poles of the length, by the poles of the bredth: as for example, if the measurer haue found in the equall length of a ground fiue and twentie poles, and in the equall bredth of the same ground fower poles, he shall multiplie fiue and twentie by fowre, and shall saie fowre times fiue and twentie are a hundred: this ground then by this multiplication is found to contiene a hundred poles, and so by consequent an arpent, at a hundred poles to an arpent, and eighteene foote to a pole, and so in like manner as the length is more or lesse. Likewise the bredth being lesse or greater, that the number of the length & bredth be multiplied together, whether it be lesse or amount to more then an arpent, he shall make his accounts and reckoning to fall proportionably, according to the greater or lesse number of poles, aswell of the length as of the bredth: as for example; if the measurer haue founde in the length of a grounde seauen and thirtie poles and a halfe, and in bredth one pole, he shall multiplie thirtie seauen poles and a halfe by one, and shall say that this ground containeth thirtie seauen poles and a halfe, which is a quarter an a halfe of an arpent, at a hundred poles to an arpent, and eighteene foote to euerie pole: by the same meanes if the grounde be seauenteene pole long, and two pole and sixe foote broad, in multiplying seauenteene pole by two pole and sixe feete, he shall finde a quarter and a halfe, two pole, three foote of an arpent: after a hundred pole to an arpent, and eighteene foote to a pole.

A ground vne-

If the ground be founde by measuring to be vnequall and vnlike,

quall and vnlike on all sides, called Balongue Cornue, after the fashion of a horne.

as well in the length of the one side to the other, as in the bredth of the one end to the other; you must remember, or for your better remembrance set downe in writing tables, the vnequall numbres of the two sides, as also those of the two endes, and afterwarde to reduce the two vnequall lengthes, as also the breadthes, into an equalitie, in the end multiplying the equal length by the bredth likewise made equal: as for example, if one of the broad ends of the said grounde do containe fower poles, and the other two poles onely, and the one of the sides of length containe sixteene poles, and the other tenne poles, to bring and reduce the thing into a square, you must take of the two poles by which one of the broad endes is broader then the other, the halfe, that is to say, one pole, and put it to the two poles of the other end, and thus each end will conteine his three poles a peece equallie. And of the sixe poles wherein the one of the sides doth exceede the other in length, to take also the halfe which is three poole, and to put them to the ten, so each of the sides will bee thirteene pole a peece: then afterward to take the number of one bredth (made equall with the other, as we haue saide) which is three pole, for to multiplie one length (made equall likewise with the other as we haue saide) which is thirteene pole, and to account that three times thirteene are thirtie nine: so there will be thirtie nine pole, which make a quarter and a halfe, one pole and a halfe, of an arpent, according to a hundred pole to an arpent, and eighteene foote to euerie pole: so then you must follow this rule in euery thing that is *balongue cornue*, that is, fashioned after the manner of a horne: that is, that the side and ende which are of greatest contents, do helpe and succour the other which are the lesser: in yeelding of their owne so much vnto them as may make side equall with side, and end with end.

Ground fashioned like vnto a wedg.

If the ground be fashioned like vnto a wedge, that is to say, equally long on both sides, but hauing one ende broader then another: as for example, twentie pole long, and seauen pole brade at the one end, and but three at the other, then you must gather the two bredths together, which will make ten pole, to take the halfe of them will be fiue, to multiplie the length withall, in the dooing wherof you must count fiue times twentie, and the summe will rise in all to a hundred pole, which make one arpent, after a hundred pole to an arpent, and eighteene foote to euery pole.

A ground lying triangle-wise.

If the ground should be triangled, hauing three sides equall, you must follow this course, which is to learne out how manie poles there are in euerie side, and then to multiply the number of the one side by the halfe of the number on the same or another side: and that which ariseth of such multiplication, will be the whole contents of the poles of that field: as suppose an equall triangled field, hauing ten pole on each side, I wil multiplie the number of the one side by the halfe number

ber

ber of one of the other ſides, that is to ſay ten by fiue, which is fiftie pole, and containe halfe an arpent, at a hundred poles an arpent, and eighteene foote to euerie pole, and twelue inches euerie foote.

If the ground haue the faſhion of an oxe head, that is to ſaie, bee caſt into two triangles equally ioyned together, and that euerie ſide (for example ſake) containe twentie poles, I will multiply the number of the one ſide by the number of the other ſide, that is to ſay twentie by twentie, and will ſay that twentie times twentie poles are fower hundred poles, and that fower hundred poles are fower arpents: at a hundred poles to an arpent, eighteene foote to a pole, and twelue inches to a foote. *A ground conſiſting of two triangles.*

If the ground ſhould proue round like a circle, you muſt deuide the ſame round into two diameters: which make fower equall quarters: then you muſt know the number of the poles of euerie quarter: afterward to multiplie them will be the ſum of the whole rounde compaſſe of the ground: for example, euerie quarter of the rounde doth containe twentie poles: we will multiplie twentie by twentie, and ſo wee ſhall finde fower hundred poles, which make fower arpents which this round ſhall containe: at a hundred pole to an arpent, eighteene foote to a pole, and twelue inches to a foote. *A ground that is circular or round.*

If the ground be of a mixt ſort hauing many formes & ſhapes, the beſt will be by the means of the ſquire to reduce them all into ſquares, and then to finde out the number of poles in them, and to put the ſaid numbers together. And, if in reducing & bringing of them into fower ſquared formes you borrow ſomething, you muſt reſtore the number which you haue borrowed in the totall number which you haue gathered, and by this meanes you ſhall haue the perfect number of your ground. *A ground conſiſting of manie formes and faſhions mixt together.*

If your ground be intangled within ſome other piece of ground, you muſt meaſure all together, and afterward taking awaie the incloſed part, and putting the one aſunder from the other, you muſt meaſure your owne by it ſelfe. *An incloſed or intangled ground.*

Thus haue we briefly ſet downe that which is to be knowen of the husbandman, concerning the skill of meaſuring of lands and whatſoeuer grounds: if he happen vpon any peece of meaſuring worke which is of greater importance, hee muſt haue recourſe vnto the profeſſed skilfull in meaſuring.

The ſecond Chapter.

What manner of tilling of arable grounds ſhall be intreated of in this booke.

AS it is ordinarily ſeene that the complexions of people dwelling in the ſeuerall prouinces of one great region and countrie doe differ one from another according to the aire, or aſpect of

the ſunne which is called the climate that they dwell in: ſo in like manner one may ſee the nature and fertilnes of arable groundes to ingender and bring forth diuers complexions and ſorts of ordering of the ſame more in one place then in another, according as the ground ſhall be moiſt and glib, grauelly conſiſting of fullers clay, brickie, ſtonie, or free and well natured: which thing did neceſſarilie compel our predeceſſors inhabitants of this country to alter and change the manner of tilling, as alſo the faſhion of the ploughes in France and the confines of the ſame, as the high and baſe country of *Beaux*, the countrie of *Normandie* and the confines thereof, *Sangterre*, *Berrie* and *Picardie*: in like manner high and baſe *Brie*, *Campagne*, *Burgongne*, *Niuernois*, *Bourbonnois*, *Rotelois*, *Foreſt*, *Lyonnois*, *Breſſe*, *Sauoye*, and againe in the countrie of *Auuergne*, *Languedoc*, *Solongne* (where there groweth no corne but rie) *Bordelais*, *Rothelais*, *Vaudomois*, *Baſadois*, and generally throughout all the countrie of *Languedoc*, euen vnto *Gaſcogine*, *Biſcay* and *Bearne*, and not to leaue out *Prouence* and *Bretaigne*, which ſome call *Gallo* and *Tonnant*. To be ſhort, beyond the countrie of *Mayne*, *Touraine*, *Poictou*, *Le Perche*, and *Conte d' Anjou*, which are as it were the lands of promiſe in our countries of France.

Of all theſe ſortes of tilling of arable ground we haue purpoſed to intreat heereafter in ſhort and eaſie manner, and that in regard onlie of the husbandrie of the true and natural France, which we vnderſtand to containe al whatſoeuer is incloſed within the bounds and circuits of the riuers of *Oyſe*, *Marne* and *Seyne*: and our purpoſe is notwithſtanding this to make the husbandrie thereof as a patterne for all other faſhions and ſorts of tillage vſed in all other countries, aſwell neere as thoſe which are furtheſt off: and yet not of anie others than thoſe which are within the dominion of France (for of forraine countries I take no care) as *Beaux*, *Solongne*, *Anjou*, *le Mayne*, *Berrie*, *Poictou*, *Auuergne*, *Brie*, *Champagne*, *Picardy*, *Bourgongne*, *Normandy*, *Lyonnois*, *Foreſt*, *Breſſe*, *Dauphinye*, *Sauoy*, *Prouence*, and the bordering countries, which are the moſt fruitfull of all the countries of France.

The third Chapter.

Of the nature and conditions of the arable ground in France.

NOW as concerning the husbandrie of France (which comprehendeth and containeth the confines called alſo French, and reacheth vnto the countrie of *Sangterre*, and to be briefe, which compaſſeth all what ſoeuer *Seyne* doth ouerflow, euen to the riuer *Oyſe* both of the one ſide & of the other, coaſting along the riuers of *Marne* and *Aube*) it is certaine that it is verie ſtrong and toilſome, as alſo the earth is found to be well natured, eaſie to ſtir, blacke, deepe, lying

lying high when the fallowes come to be ploughed vp, hauing few ſtones, and by conſequent, bearing great ſtore of fruit. Againe it beareth pure wheat that noble graine for the making of bread and ſuſtaining of mankinde, if ſo bee wee will but giue that which is due vnto *Gonneſſe, Lounres, Poiſſy, Dampmartin* and vnto *Sarcelles* and vnder *Eſconan*, and *Luſarche*. In which countries a couple of horſes of the price of a hundred or ſixe ſcore crownes a peece or aboue doe runne through their worke and husbandrie, without being either called or cried vpon, and they do but a certaine taske by the day, ſeeing they cannot endure great heat or rain, ſtrong winds or froſts, being as loftily & brauely kept as the courſer or light horſe is in the ſtables of Princes. It is true that all their ground in France is not altogether alike: for in ſome countries you ſhal find it much conſiſting of a potters clay and grauelly: in other countries marſhy, moiſt, ſtony, flinty, barren and vninhabited, hilly, full of wilds, ouergrowne with ruſhes and brooms, which and if a man would til for to bring foorth corne, he muſt inrich and make the better, by ſuch meanes as I haue declared in the firſt Booke.

The fourth Chapter.

What ſpace and largenes arable grounds would haue.

IF you deſire that your corne grounds ſhould be faire to ſight, make a goodly ſhew, be eaſie to be tilled and beare plentifullie, part them into many peeces caſt fowre ſquare, and let neuer a one of them exceede in the length of forty poles, nor yet be leſſe than thirty or fiue and twentie: and, if the inconuenientneſſe of the place will not ſuffer you to caſt them into ſquares, then make them ſomewhat more long, but yet not exceeding the foreſaid fortie poles in length: for beſides infinite other commodities and pleaſures accompanying ſhort fields and ſuch as are not of large reach, this is one verie ſpeciall profit, namely, that oxen and horſes doe labour there with leſſe trauel and wearſomneſſe, in as much as they do not onely cheere vp themſelues and take their breath being at the end of the furrow, but alſo for that the ploughman cleanſeth and freeth his plough, of the earth wherewith it is woont to be laden, as then alſo carrying them about to enter vpon a new furrow: cauſe your ground if poſſibly it may be, to lie leuell and euen, for beſides the pleaſure of ſeeing from the one end to the other, they will alſo be the more eaſie to be ploughed, dunged and ſowen: let them be ditched round about, or at the leaſt on the ſides, as well to draine away raine water or other if any ſhould ſtand there, as for to cut off the trade waies of paſſengers. Plant not within nor about your corne grounds any trees, for feare of the ſhadow, knowing aſſuredly

redly that the more that corne is ſhadowed, the further off it is from being comforted and reioiced by the ſun, as alſo from hauing the duſt (which is wont to lie much vpon it) blowne off by the windes, and likewiſe from being deliuered from ſnow, fogs and tempeſtes oftentimes a heauie burthen vpon the backe thereof. And yet put caſe that for your pleaſure you would plante ſome trees thereabout, then let them be no other but willowes, or ſuch like that may beare no great head to make ſhadow: and therefore let neuer come nie thereto either the poplar, or aſpe, or aller, whoſe ſhadow is not onely dangerous and hurtfull vnto the corne ground, but which is more, with their great, thicke and great ſtore of rootes, they draw vnto them the beſt iuice, they ſucke vp the fat of the earth, and ſo ſteale away the beſt from the ſeede that is ſowen.

The fifth Chapter.

How oft corne ground muſt be eared or plowed ouer.

THAT I may therefore briefly declare vnto you the tilling of grounds for graine and pulſe, vnderſtand in generall, that the earings of arable grounds are diuers, according to the places and ſituations of the ſaid grounds, as wee haue alreadie alleaged. But howſoeuer the caſe ſtand in that point, and in what plat or peece of ground ſoeuer you can name them to be, it behoueth that at the firſt earing which is giuen them after they haue reſted and laine fallow, that you cleanſe them well from ſtones all ouer with rakes, and that at the paines or trauell of ſome yoong boies and girles that can doe little or nothing elſe, or otherwiſe by others: for the earth of it owne nature lying vntilled, begetteth nothing but ſtones, and ſtrong and vnprofitable weedes, as thoſe which are the reliques of the dung now throughly digeſted, and changed by a heate exalted vnto the fifth degree. And we neede not make any doubt of it, but that euen good and kinde ground, when it ſhould not bring forth any thing but muſtard ſeede, couchgraſſe, pimpernell, mercurie, thiſtles of all ſortes, danewoort, wilde fetch, red poppie, wilde oates, veruaine, blew bottles, axfetch, or ſuch other like vnprofitable weedes, without forgetting of cockle and darnell, and that which is called reſtharrow, or at the leaſt ſome fumitorie and henbane; yet it will bee doing of ſome thing more: as namely thoſe which grow out of it of themſelues, as ſtinking mathweed, kexes, rupture wort (theſe be reclaimed grounds) and the herbe called Chamepytis, as I haue ſometimes ſeene in thoſe countries which properly and truly containe France. For the diſtinguiſhing of theſe herbes, the thiſtles ſhew the heate of the ground, as their aromaticall and odoriferous rootes may teſtifie: the hemlocke wilde

The firſt earing of ground, after it hath laien fallow.

Vntilled ground.

Weedes ſhew what manner of ground it is wherein they grow.

wilde ſmallage and fumitorie grow of putrefaction: the bindeweede both great and ſmall, doe proceede partly of drineſſe, partly of the alteration of the humour: nightſhade the great and ſmall doe ſpring vp of the cold part of the earth, which they drawe from the humour thereof: mercurie of both ſorts, eiebright alſo of two or three differing flowers, the ſmall ſorrell red vnderneath, and the three ſorts of plantaine doe hold of cold or temperate ground: but the garden and water creſſes, rockets, wilde muſtard ſeede, as alſo the two ſortes of water parſley haue differing natures and are more hot, according to the humour which they confeſſe to participate, in reſpect of their propertie: To be ſhort, theſe are certaine dalliances and ſports of nature, which (though ſhe ſhoulde neuer be husbanded in the earth) would (notwithſtanding) yet neuer abide idle, or without doing ſome thing. *Nature is neuer idle.* It is true that the couchgraſſe and that which is called reſt-harrow make ſhew to be more ſtanding tenants, than veruaine or male knot-graſſe, for they will not away, except the plough and culter their tyrannous commanders doe come. To conclude, theſe latter herbes being cut and rooted out by oft and deepe ploughing, muſt afterward (eſpecially the thiſtles) be thwacked and beaten ſmall before the firſt raine, that ſo there may nothing of them (yea, no more then of an adder) remaine aliue to breed or increaſe any thing againe: for their nature is ſo ſoone as they receiue a little moiſture to faſten & claſpe themſelues ſo cloſe to the ſlime of the earth, as that they will therby againe ſo enter new poſſeſſion, that within a ſhort time after they will become ſtrong inough to ſtrangle their mother. Let vs therefore conclude, *The firſt earing.* that the earings of the arable ground are to clenſe it from ſtones and weedes, to manure it, to ſpread and caſt abroad the dung or marle, to plow it after the manner of the firſt earing, to furrow or ditch it, to clod it with a rowler or board to couer it: then after ſome time when the raine hath fallen vpon it to plough it for the ſecond earing, which *The ſecond.* of ancient men is called ſtirring of it, and this cannot be done without laying it in furrowes: and the third earing is to plow it for ſeede time, to ſowe, harrow, and pull vp weedes, which by abundance of raine, *The third.* and too much rankeneſſe of the earth, doe ouergrow and enter commons with the new ſhot corne. And laſtlie, to mowe and laie it bare and naked, to ſheare or cut it downe, to ſheaue it and to gather it in.

The ſixth Chapter.

The plow mans inſtruments and tooles.

THE carefull and diligent plowman, long time before he be to begin to eare his ground, ſhall take good heede and ſee, that all his tooles and implements, for to be vſed in plowing time, be

be ready and well appointed, that so hee may haue them for his vse when neede shall bee: as namely a waggon or two according to the greatnes of the farme, and those of a reasonable good big size and handsome to handle, well furnished with wheeles, which must be finely bound and nayled: and of a good height but more behinde then before: one or two carres, which may be made longer or shorter, according as the matter, which shall bee laid vpon them, shall require: one light and swift cart, the bodie laid with plankes and sufficient strong to beare corne, wine, wood, stones, and other matters that are of great weight: a plough furnished with a sharpe culter and other partes: tumbrils to carrie his dung out into his grounds, wheelebarrowes and dung pots to lade and carrie out dung in: strong and stout forkes to load and lay vpon heapes the corne sheaues: pickaxes to breake small the thicke clods, the rowler to breake the little clods: rakes, pickaxes, and mattockes or other instrumentes to plucke vp weedes that are strong and vnprofitable: harrowes and rakes with iron or wooden teeth, to couer the seede with earth: sickles to sheare or cut downe harueſt: flailes to thresh the corne: fannes and sieues to make cleane the good corne, and to separate it from the chaffe, dust, and other filth.

The seuenth Chapter.

To cleanse arable ground of stones, weedes, and stubble, the first works to be done vnto wheat ground.

BVT to speake more particularly of the dressing and earing of arable grounds that are to bee sowen with corne, that is to say with rie corne, maslin, some kind of barlie, Turkie corne & such others whereof bread is made, and especially that which the Frenchmen call for the excellencie thereof wheate corne, and the Latines *Frumentum* and *Triticum*: they must haue the stones gathered off in winter, vpon ground that hath laine fallow, which thing for to spare cost and charges may be done by little Iackboyes and girles, which with their hands stooping downe and filling maunds, and little baskets, may carrie them into the middest of the high waies, and into the furrowes and ruts of carts, or else vnto the end of euerie land, there casting them in some vnprofitable place. The worke is so needefull, as that if the field be not cleansed from stons, though otherwise it should be duly and orderly plowed, though otherwise it were fat and fruitfull of his owne nature, yet would it beare lesse then any other peece of ground: and on the contrarie how leane soeuer it be, if yet it be cleane withall and freed from stones, it will not let to bring foorth in good and plentifull sort. Sometimes before the gathering of the stones off, some

some vse to weede it and to pull vp by the roote the briers, thornes, bushes and great herbes growing thereupon: but such labour may seeme most requisite in an ouergrowne ground before the first breaking vp of the same. The stubble is to be taken away and rid from off the ground where wheate, or other corne, as oates or other graine haue growne, so soone as the corne it selfe is shorne and cut downe.

The eight Chapter.

That the second or next dutie to be performed to the ground is to enrich it by manuring it: that so of a leane ground, it may become fruitfull.

ALL grounds which are appointed for seede or corne ground, whether they bee such as are new broken vppe, or such as haue oftentimes alreadie borne corne, must be enriched and repaired by manure in the beginning of winter about the eighteenth of Nouember, or the beginning of December, with sheepes dung that is three yeeres olde, or else with cow and horse dung mingled together, for the helping of it to a temperate heate. The dung is to bee laide on in hils, little lumps, or heapes, and that along as you meane to cast vp your furrowes in plowing, and after to spread it in his season whether it be rotten dung or marle. And it shall chiefly be done in winter, that so the raine and snow dropping and falling downe vpon it, it may be ouercome and caused to relent. The vnskilfull and bad husbandman spreadeth it al hot, but he lacketh not a faire forrest of weedes as reward of his hastie paines: for dung being thus at the first sowne & spred though it be ouercome afterward: notwithstanding see what weedes it hath receiued from the beastes houses as being there scattered, it yeeldeth for his first fruites backe againe vpon the land, and therewithall impaireth much the first crop of corne that shall follow after, howsoeuer others following may prooue more naturall and plentifull by it, and further hindereth both the ground and hindes in their working. And this is the cause why the inhabitants of *Solongne* and *Beaux* the best husbandmen, cause their rosemarie to be rotted in sommer and made manure of in autumne, and yet many times not hasting but deferring the vse for a longer time: furthermore they continue and hold it from father to sonne as a receiued verity, that nothing is more deere and pretious then dung taken in his season, for the inriching of ground. Some take dung as it were hot and halfe rotten at the end of their field: but that doth much harme, because such dung not being ouercome of the snow, raine, and other helpes of the heauens, but remaining crude or rawe: doth likewise remaine vnprofitable, especially the first yeere doing nothing it selfe and keeping the better fruit from profiting and comming on as it would: though the second yeere it may helpe well and hinder nothing.

What manner of dung must be vsed.

Nothing more deere then dung.

The diuersitie of muckes.

thing. It is true that if you would inrich a poore field, that it is better done by the dung newly gathered out of the beasts houses, then with such as is old, and it would be spread in the new of the moone a little before the seed be sowen, prouided yet that it be then plowed & turned vnder the earth. They seeme vnto me not to doe woorst, who hauing gathered their corne in August or September, and cut it somewhat high, doe burne the stubble and other weedes which are in the fields, whereby they make a manner of dunging of it by the helpe of raine falling thereupon. This standeth in steed of the first sort of inriching of their ground, especially in barren and sandie grounds, and such as stand vpon a cold moistish clay, or such as haue a strong new broken vp ground: True it is that they doe not this yeerely because of their neede to couer their houses, and of hauing litter for their beastes. And yet those may seeme vnto me to be lesse deceiued, who hauing left their stubble long and high, in the shearing and cutting of it downe, doe presently thereupon bestow an earing vpon such ground, and so vnderturne the said stubble and weedes, there to let them rot with the winter raine. There is nothing so good as the first manuring and dunging of the ground, which if it be neglected, it will not recouer it for two yeeres space againe, so that for such space he shall gather nothing but tie in steede of wheate, and fetches for oates, and wilde fetches for kinde and naturall ones. It is true that the first is not sufficient of it selfe for to dung and enrich the earth sufficiently, and to make fruitfull those that are barren and leane: but there must be other meanes vsed for to effect such a worke, and amongst them al, that seemeth vnto me the principall, which is the letting of the field to lie a yeere or two vnoccupied, not ceasing the while to husband it both winter and sommer, as also the first time when you would haue it beare to sow it with lupines or rather with pease, prouided that the ground be not ouer colde, for then it would profit those pulse but a little. And if all these meanes should fall out to be insufficient, it will be good to spread quicklime vpon the plowed ground in the end of Februarie: for besides that it enricheth a ground greatly, it clenseth it also, and killeth all bad and dangerous weedes, whereupon it commeth to passe, that the harueſt after it is more plentifull, then after any other dung that a man can inuent to vse. Furthermore if the ground be light it will be good to cause some water to ouerflow the corne for the space of ten daies or thereabout, which will likewise stand in steed of a manuring or dunging.

Stubble serning in steede of dung.

The first manuring of the ground is the best.

To spread dung.

The dung or marle is to be spred in the increase of the moone about the eighteenth of Nouember, after such time as the rested ground hath passed his time of recreation: but and if it be in such grounds as wherein the chiefest kindes of corne are to be sowen, then they must be dunged presently after the end of autumne, that so the

ground

ground may haue leasure to receiue the raine therewithall, which will serue to helpe the seedes the better to rot, thereby prouiding an aid for the weaknes of the earth. In like sort if this should be for tie, or for messling, the ground would be dunged in the hart of winter or a little before, notwithstanding that some doe staie for the moneth of March that it may presently after receiue the showers of Aprill, which may doe much good towards the latter end of September, at which time they sow in fine dust and windie drouthes looking for the first raine & the putrefaction to be wrought by the same. But howsoeuer the case standeth, seeing it is better to manure the ground, then not to manure it: so it is better to dung it oft then much at once: for as a field starueth if it be not dunged at all, so it burneth if it be ouer dunged, in consideration whereof the ground must be well waighed, for a good ground hath no such need to be dunged as a leane ground. The moist field would be much more dunged, for seeing it is frosen continually by reason of his moisture, it commeth to passe that the dung by his heate doth resolue and thaw the same againe. The drie ground requireth lesse, bicause it is hot inough of it selfe by reason of his drinesse, and if you should bestow great store of dung vpon it, it might bee a cause to make it burnt.

How it is naught to dung a ground too much.

There must likewise consideration be had of the goodnes of the dung, for good dung would lie fast and close together for a season, and rest it selfe a yeere: if it be elder it is so much the woorse. The pigeons dung is the best of all, and next thereto is mans dung, especially if it be mixt with the other filth and sweepings of the house: for of it owne nature it is very hot: next vnto this is asses dung, which is the best of all beastes dung, because this beast doth chew and eate his meate with great leasure and digesteth it best, and thereupon also maketh a dung most prepared and fitted to be put presently into the earth: next vnto this is the dung of sheepe, then that of goates, and alike of all others, as horse, mares, and oxen and kine: the worst of all is swines dung by reason of his great heate, for therewith it presently burneth the earth: for want of dung the stalks of lupines cut downe, haue the force and efficacie of very good dung: or else to sow lupines on corne ground which is leane, and after that they be come vp to put them into the earth againe turning it ouer them. There are many farmes of which one can keepe neither bird nor beast to make dung of, and yet the painfull farmer in this scarcitie of manure, may make some of the leaues of trees and thornes, and dirt, or parings of the earth gathered out of the streetes: he may also take ferne and mingle them with the filth and mire of the vtter court: or make a deepe pit, and gather into it, ashes, stubble and stumps of hay or straw, the dirt hanging about spouts, and all other manner of filth that may be scraped and raked together in paring or sweeping the house or else howsoeuer. And in

To put dung close together.

The diuersitie of dung.

the

the midst of this ditch you must set a peece of wood of oke to keepe away adders and snakes that they come not to breed or abide there. If you haue no other but arable grounds, they will not need, that you should diuide your dung into diuers sorts: but and if you haue vineyardes, meadowes and corne ground, you must lay euery sort of dung by it selfe, as that which is of goates and birdes must be stirred euery sommer, as if you would dig it with pickaxes or spades, to the end it may rot the sooner and be better for the ground.

The ninth Chapter.

That the ground must be plowed ouer according to his three earings before that it be sowne.

TO till and husband the earth as it should, there are three things chiefliе required: a husbandman furnished with a good vnderstanding and ripe iudgement: cattell fitted for the worke, and a plough well appointed and made: but of all other things it is requisite that the husbandman doe know the nature and condition of the earth, which he vndertaketh to till, to reape fruite and commoditie of, that so he may stirre it and giue it as many earings as the nature thereof doth require. For in fields which are of a good ground vnderneath, he must set his culter and plough so deepe, as that the better and fatter earth which is vnderneath, may be turned aboue, where as to take the same course in a ground that is barren and leane vnderneath, were altogither vnprofitable. In like manner there are manie fieldes which the more they are eared and plowed, become so much the leaner and barenner, such as those are which haue a light moulde, which the ofter they are plowed in the time of heat, so much the more they are pierced of the sunne, and so become the weaker and lesse able to beare corne. It is true indeed that there are not many sortes of ground, but by oft earing they become more fruitefull, then and if they were seldomer eared: but howsoeuer wheate or mesling especiallie, do desire to haue three earings, before they be sowen: one, which is called the first earing, and it must be when as the dung is newlie spred (otherwise the dung would loose his force, being wasted and consumed by the heate of the sunne) and this first earing is for to stirre the earth and to make it soft for after plowing, not turning vp much earth with the plough, nor piercing deepe into the earth this first time, but cutting it in such sort, as that the furrowes may be so neere togither one vnto the other, as that a man shall hardly perceiue the path or passage of the plough: for by this meanes all the roots of the herbes will be broken and die. The second earing is in the spring, at such time as the earth beginneth to open of it selfe: and then you may cast your ridges good and high, and great withall, that so the seed

may

may be the better intertained.

But you muſt vnderſtand, that according to the ſituation of the grounds that are good for corne or pulſe, as alſo according to the countrie, mould and hartines thereof, it is vſed to varie and alter the plowing and tilling of the ground for the further benefite of the inhabitants, for at *Brie* where they haue a ſlipperie and moiſt ground, fit to make pots of for neceſſary buſines, they plow vpon a cauſey and as it were vpon an aſſes backe, & in euerie fiue furrowes they hold it meet to caſte one high ridge that is very large, and made alſo like a cauſey, both to receiue the raine water, and that which ſpringeth out of the earth, which is alwaies moiſt, and that becauſe of two riuers lying on the one ſide and on the other, and do moiſten and water the grounds there continually vnderneath. And for the ſame purpoſe (which is alſo practiſed in ſmall *Beaux*, as in *Longboyau*, *Val de Gallie*, *Val-boyau*, *Niuernois*, and *Burbonnois* they make at the end of their ground, certaine riſes of ſufficient height, where betwixt the ſaide riſe and arable grounde, there is a ditch or pit made within it, after the faſhion of a long fat, to receiue the waters which runne along after great raine, for otherwiſe they woulde rot and ſmother the corne: this troubleth ſuch as trauell thoſe countries: and this is the cauſe of the name wherby they are called the graſhoppers of *Brie*. Inſomuch as that they can not tell how to do ſo well, as in a rainie day to go and pull vp darnell, danewoort, and other ouerſpreading weeds (which elſe they coulde hardly ouercome) being a kinde of earing of the ground, called of auncient writers the freeing of corne ground from weedes: hauing further by ſuch aboundance of raine this ſcath done vnto their corne, as that it is laide bare now and then, yea, and that though it bee neuer ſo well harrowed, and the earth of it ſelfe ſtrong and mightie. There is no neede of any ſuch ryſes or ditches in the parts of France truelie and properly ſo called, neither in the Iſle thereof, nor in the flat and free countrie of *Blairie*, as *Long-boyau*, and *Labeauce*, (the very barne and ſtorehouſe of France) the countries of *Oye*, *Sangterre*, or elſe of *Berry* and free *Poictou*. And all grauelly countries may be well excuſed & freed from all maner of ſuch inconuenience as appeareth by many places of *Picardie* and *Solongne*, euen vnto *Percheron*: ſo that they make their furrowes cloſe and neere one to another, as is woont to be done in low grounds and valleies.

The ground muſt alſo be plowed in a fit and conuenient time, to the ende it may become fruitfull: wherefore the carefull husbandman ſhall neuer plow his ground whiles it is wet, for running through it with the plough, it will do nothing but runne vpon heapes, eſpecially in tough & clammie grounds, as alſo in thoſe which be harde, or growing and putting foorth their fruite, in as much as this maketh them ſo ſadde and cloſe, that it is impoſſible to make them fine and

ſmall moulde: againe it is but an abſurd thing euer to go about to put the plough in a dirty & myrie ground, becauſe it is nothing fit to ſtirre or deale any maner of way withall before it become drie, and ſo vnfit, as that though you could do what you would vnto it with the plough, yet there is no caſting of any ſeed into it.

And if it ſhould fall out, that there were any tree or vine plant in the grounde, you muſt paſſe it ouer, in lifting vp the plough from off the ſhootes which come from the rootes, at all times when you perceiue your ſelfe to bee vpon them: or elſe you ſhall cut them off with a hatchet, rather then bruſe and breake them with the culter, for feare of breaking the culter it ſelfe, and putting the oxen or horſe to trouble and paines.

The tenth Chapter.

That the cattell vſed to plow withall do differ according to the manner and cuſtome of the countries.

Plowing with horſe.

IN rough and tough grounds, as alſo in free and kindly grounds (as hath beene ſaid) where there are required as needfull three horſes to a plough of fiftie foote (but not ſo coupled and ſpanged, as they be in countries, where they vſe to plow with mares, oxen and aſſes, or buffles) you muſt after the firſt earing, breake the clods with the rowler, and lay it flat, ſquare and plaine, with a planke. In leane, grauellie and weaker grounds, you ſhall not ſtande in neede to bee at ſuch coſt either with horſe or man: for it is not requiſite that you ſhould drawe ſo deepe a draught in the earth; and againe, the husbandmen of ſuch countries haue ſooner finiſhed and made an end then others, and yet do labour with more leaſure becauſe of the aire and climate of their countrie: Againe, they worke with the aſſe and the oxe, as in *Auuergne* with the yoong mule, and in *Romaine* and *Champaigne* in Italie with the buffle. Whereas of a truth the labour of oxen is not readie, nor ſo quicke of diſpatch in the time of neceſſitie; and for to remedie and helpe this miſchiefe, you muſt begin your worke with the oxen ſooner, and haue a great number of them then of horſe: the prouiſion of oxen is of leſſe charges for diet, buying, and ſelling againe; whereunto you may adde, that you may eate the oxe, or ſell him againe, after you haue had his labour a certaine time; true it is, that he that hath wrought all the morning muſt reſt the afternoone: and the oxen going earlier to plough, retutne earlier from labour than the horſe: the greateſt commoditie comming by them is, that they better endure the vnſeaſonableneſſe of times, and in ſturdie and ſtiffe ground they draw a deeper draught, and acquite themſelues in the worke with more commendation: againe, they craue nothing ſo much ſhooing or harneſſe in the countries where iron and harneſſe is

Plowing with oxen.

deere

deere, neither are they subiect vnto so many maladies, saue that they must be kept from being starued with colde, and from the raine, as also care taken that they be well couered.

I finde not any labour lesse chargeable then that of asses, such as are to be had in *Tabie, Calabrie, Sicile,* & in the countrie of *Iassle*, being all of them countries where they grow great and faire, for they indure more labour, and are not subiect to so many diseases, neither are they so costly to feede. True it is that they doe not so much, neither yet altogether so wel: wherefore they are better to be vsed in leane grounds, except the yoong mule of *Auuergne*, which exceedeth all other beasts: but he is troublesome, hard to be brought to draw, & so brainsicke, as that there is not the yoong mule which hath not his madding fit, and vexeth his master now and then: whereupon it groweth that some vse to say, namely a good yoong mule, but a curst beast. *To plow with asses.* *A good mule but a curst beast.*

The plowing with buffles, as is to be seene in *Romaine* and elsewhere, is good in groundes that are fat and standing vpon a potters claie, and are not chargeable in harnes: because that hauing so short a necke, they stande not in neede of any thing but a ring, to holde and keepe them by the snout, but in sommer they are dangerous, and fall oftentimes into a frencie, especially when they see any red clothes; and yet notwithstanding they holde out longer at labour, and are more readie and diligent then the oxe: finally this poore beast serueth to giue milke, besides the worke and labour performed by them, as also their hide is of much more vse then that of the cow or oxe: for in some places husbandmen do vse mares, asses, she mules, and kine to drawe and goe to plough, after the same manner that the males do.

I do not intend to trouble my selfe in this place with the fashion of the plough, neither yet with the diuers sortes thereof, that are founde in diuers and sundrie countries, so as if you should aske me of the difference betwixt the oxe plough and the horse plough, I intend not to shape you any further answere thē this, namely, that according to the loafe so must the knife be: euen so according to the force & strength of the ground, so you must haue your instrumentes and tooles for to cut and till the same; neither will I trouble my selfe with examining the fashions of our ploughes with that described of *Hesiod*, to see whether they be like or no: no more then I intend to meddle with the fashion and making of *Columella* his hedging bill or wedge, which he saith in his time to haue beene named after the French name. *The diuersitie of ploughes*

The eleuenth Chapter.

Of clodding, and earing it the second and third time, and of sowing of it afterward.

To clod the ground.

FVrthermore it is meete after the first earing of corne grounde, verie diligently to breake and take away clods, and to make the ground plaine & euen, for the better sowing & bestowing of the seed in good proportion & sort vpon the ground, which our common husbandman vseth to doe in the time called of him the dusting time: notwithstãding that the inhabitants of *Beauce*, do not so strictly stand vpon the same: for by reason of the fatnes of their grounds they take the time howsoeuer it shapeth, hauing no good assurance of the time whether it will continue faire or turne rainy. It is the order and common fashion to breake the clods with the rowler, which would do well to be of marble in a tough and stiffe ground, or else you may breake them with a harrow well toothed with sharp pointed teeth of iron and of a good length. But howsoeuer, you must so labour it and so oft go ouer it, as that it may be broken all into dust if it be possible, that so there may not remaine one clod vnbroken after that it is sown. Wherefore after that the clods are wel broken and all made plaine, for the second earing you shall cut vp your grounds againe about mid Iune if they be fat and moist: or about the moneth of September if they be leane and drie: for otherwise your leane ground would be quite dried vp and burnt with the sun, neither would there remaine therein any vertue or iuice. Aboue all things you must obserue and keepe such order in plowing, as that the ground may not be too drie nor too moist: for great store of moisture maketh them dirt and mire; and too much drines doth disaduantage the husbandman a maine, either because the plough cannot enter the ground, or if it enter, yet it cannot break it small inough, but turneth vp thicke and broad clods of earth, in such sort, as that afterward it will be hard to plow vp the fielde againe, for certainly there cannot be that done which should & is requisite when the earth is too hard: wherefore the ground that hath beene plowed in drought, must haue a rainy season found out to be plowed in afterward againe, that so the same being watered and moistned, may be the more easily tilled.

The second earing.

The third earing.

Shortly after the second earing, you shall giue it his third earing, which must be more light and such as breaketh not in so deepe as the two former. This earing being finished, you must euen and make smooth the ground with a harrow presently after, which shall be about the middest of October, you shall sowe and bestow your seede vpon the ground in good proportion, but not at any other time then in the increase of the moone, and neuer in the decrease: and then likewise it will be the better if you take the opportunitie of a little raine, following the Prouerbe which saith, you must sowe wheate in myre, and barly in dust, and the reason is, because that wheate being harde and comming neere to the nature of woode, doth bud and sprout better

better and sooner when it is laid in steepe and mollified in dirt, or else for feare of pismires, which if the wheate should bee sowne in a drie ground, would become lordes of it by and by and carrie it away: notwithstanding if you see that the raine be somewhat long in comming (seeing the times are not in mans power) you shall not defer to sowe especially in drie grounds: for the corne which is sowne in drie ground and well harrowed and couered, doth inioy and keepe the same without corrupting, as well as if it were in the garner, and if there follow any raine, the seede will be vp in a day. I presuppose in the meane time that the husbandman hath let rest and lie idle his groundes for some two yeeres, wherein hee is intending to sowe his wheate, to the ende they may bring him a better crop. Furthermore seede time is expired and past about the eighteenth day of Nouember: for then the earth by the coldnes of the aire becommeth close shut, and as it were rugged, staring, and agast, so that it will not be able so well to receiue the seede, and to cause it to thriue. It is true that in cold places seede must be sowne earlier, but in hote places later: whereupon it commeth to passe that in *Italie* they sowe about the beginning of Nouember, but with vs in France, where it is temperate in October: in cold places and coast countries in the Calends of September, or rather sooner, to the end that the rootes of the corne may be growne strong before that the winter raine doe moleste it, or the ice and frostes doe hurt it. Notwithstanding at what time soeuer you sowe your seede, you must make diuers conueyances ouerthwart the groundes and conduits to carrie away the water out of the corne. In the meane time the husbandman shall haue occasion sometime to reioyce, in hope of good successe, and somtime to feare in doubt of the euill successe of his seede by reason of the variablenes of the time. He shall haue good hope of his seede if he see the time inclined to sweete, milde and not violent showers, & vnto temperate, not excessiue and often showers: for the milde showers resemble the dew, the excessiue ones doe moisten and coole to much. If in like manner the snow doe fall in aboundance and become hard by some frost following thereupon: for such snow letteth and stayeth the earth from spending it selue by exhalation and wasting of his fatnes, which otherwise by vapours would bee consumed, and if also the said snow in melting doe waste and water by little and little the earth with his pure and sweete licour, and as it were scumme of raine, for that serueth to make the earth fat, prouided that presently vpon the melting of the snow there fall no showers of raine accompained with haile: If lastly the frostes come in their proper and due time: for if they be too early and forward they burne the yong sprouts, and if too late, they hurt them very much.

The twelfth Chapter.

Of the choice and quantitie of ſeede to be ſowen.

The chuſing of ſeed wheat.

THE induſtrious husbandman, ſhall chuſe ſuch wheate to make ſeede of, as is full, thicke, heauy, firme, ſo hard and ſtrong as that it cannot but with paine be broken betwixt the teeth, of a red colour, bright, cleane, not aboue a yeere old, which maketh ſauorie and well taſted bread, threſhed out of choice and culled eares, which after fanning & winnowing lieth vppermoſt (as that which is the thickeſt and moſt maſſie) which was growne in a fat ground, but contrarily ſeated to that wherein ſuch wheat is to be ſowen, as from hil to plaine, and from moiſt to drie, and yet ſo contrary, as that the ſeed of a bad place be rather ſowen in a good place, then the ſeed of a good place, ſowen in a bad: for ſeed be it neuer ſo good doth become worſe and degenerate eaſily, when it is ſowen in a bad plot.

Seed degenerate.

It will bee good before you ſowe your ſeede to lay it in ſteepe in water ſome certaine howres, and afterward to ſpread and lay it abroad ſome where in the ſhadow to drie, that ſo it may be ready to rowle or runne at ſuch time as it is to be caſt into the earth: by this meanes you ſhall chooſe the faireſt cornes that ſhall ſtay behinde in the bottome of the water to ſowe them, which will growe within three or fowre daies; but as for thoſe which ſwim aloft aboue the water, they ſhall bee taken away, bicauſe they are not woorth any thing to ſowe: for the beſt vſe for ſuch, is either to feede hens, or elſe to grinde, that ſo you may get out euen that ſmall quantity of meale and flowre that is within them. Some before the ſowing of their corne do ſprinkle it ouer a little with water, wherein haue beene infuſed houſleeke, or the ſtamped ſeeds and rootes of wilde cowcumbers, to the end that the corne may not be eaten of moules, field-miſe, or other ſuch like vermine.

How much corne will ſerue in ſowing.

The quantitie of corne which muſt be ſowne ſhall be meaſured and rated according to the peece of grounde: for an arpent of fat grounde will for the moſt part take fowre buſhels of wheate, a reaſonable fat ground will take fiue, and a leane will take more: it is true that there muſt reſpect be had vnto the countrie and place where it is ſowne. For in colde countries and places that are waterie, being alſo alwaies ſubiect to ſnowes, it is needefull to ſowe a great deale more then in hot countries, or in temperate and drie places: in as much as the cold and ſnow do corrupt the greateſt part of the ſeede. Beſides, the time is well to be obſerued, and the diſpoſition of the aire, for in Autumne you muſt ſowe leſſe thicke, and in winter or the times approching and comming neere to winter, a great deale more: againe, in rainie weather you muſt ſowe thicker then in dry weather.

The

The thirteenth Chapter.

Of harrowing and weeding of corne.

PResently after that the seede is bestowed in the ground, you must for your last worke harrow it along and crosse ouerthwart, and after that rake it from furrowe to furrow, but ouerthwart onely: this woulde bee done with harrowes hauing iron teeth rather then wooden ones, because they make the corne settle deeper into the earth, which they doe breake and make small a great deale better, and so by that meanes do couer the corne with earth, as it requireth at the least the thicknes of fowre fingers, that so it may be the faster rooted and the safer from birdes, and thus it must be let alone the whole winter vnto the spring. True it is that during winter you must not neglect to make draines and draughts thereby to carrie away the water that falleth in too great aboundance by raine.

When the spring time is come, and the wheat hath taken good roote, you must weede your ground of such store of weede, as winter raine, and the ranknes of the earth it selfe haue caused to abound and ouergrow the corne newly put vp, as fetches tame and wilde, poppie, cockle, and such like, and after once hauing weeded it, it will be good to do it the second time, as when the eare beginneth to shoote: for in so dooing the corne will proone faire and cleane: but in the meane time you must so weede it at the first, as that the rootes be not hurt, but that they may remaine couered and laden with the earth, that so they may stande faster in the earth, and growe the more vpwarde. At the second time of weeding you must not bare it much, for and if the wheate shoulde not shoote vp still more and more, it would rot vpon the earth and bring foorth nothing. Againe, at the second weeding you shall stirre and make euen the grounde a little, that so the corne may not be too close and fast couered at the foote, which would cause it to die also and rot away bringing forth nothing. This worke and dutie is not of small weight and moment, in as much as oftentimes the corne is choked vp by weedes and bowed to the earth, by their too much loftines, taking their opportunitie of some beating winde or raine. Moreouer you must not be abashed, if the greater part of eares proone emptie, wi hout hauing any thing at all in them: and the other not to come to perfection and ripenes. Againe when the good corne is accompanied with fetches, darnell and other weedes, the bread is not onely made more vnpleasant, lesse sauourie, wholesome and discoloured, but also it commeth not to the one halfe of good corne, which is not mingled with these filthy weedes, in so much as that three loade of such corne, after the winnowing of it doe not yeeld two of pure and cleane corne. And which is woorse the field

where such seedes are scattered, doe not bring forth halfe so much as those, which are charged with nothing but well cleansed and winnowed corne.

The foureteenth Chapter.

Of mowing.

The last labour. THE last labour and toile, for the which all the other in the whole yeere going before was taken, is mowing and cutting downe of the corne, which must be attended, after that it once becommeth ripe, which will appeere by the turning of the colour into a light yellow throughout in all partes alike, and before that the graine be altogither hardned and turned red, that so it may grow thicker in the weathering and barne rather then standing in the fields: for it is most certaine that if it bee cut downe in good and due season, it will grow bigger and increase afterwarde, whereas otherwise if you staie the mowing of it downe till it be throughly drie, the greatest part of the corne will fall to the grounde in mowing of it, and will become a praie for the birdes and other beastes: if there happen any violent or whirlewinde, it will lay it flat with the earth: you must of all other times make choise of the wane of the moone, or betwixt moone and moone, to cut downe your corne therein, if that you would haue your corne to keepe well. And the best hower is the breake of the daie, when it is full of deaw. The manner of mowing is either to cut it in the midst of the straw to the ende you may haue stubble to couer your countrie houses, as also to heate the ouen to bake bread in such countries as are vnprouided of wood, as in *Beauce*; or else to cut it within a foote of the ground, for the greater prouision of straw, which will serue afterward to make *Mats* for beds, or litter for horses and other cattell, (and which is yet the greatest profit of all) to imploy about the making of mats for the vse and behoofe of the householder in his chambers: that which remaineth, shall either be cut downe with sickles, or hedging bils made fast to the end of a great staffe, to make a fire withall for the winter time: or else it shall bee burned in the fields themselues, to make dung by the meanes of raine falling thereupon: in groundes especially that are sandie, or standing of a stiffe potters clay, or which haue a strong mould.

The time to cut downe corne.

Stubble.

Straw.

Mats.

The corne being cut, shall bee gathered together and made into sheaues, and after led and carried into the barne by the farmer: which must bee seated in a sufficient high place, that so it may receiue the winde readilie, and yet not that I would haue the winde when it commeth, to be able to goe against the houses or gardens, for besides the annoiance which the small chaffe would worke in the eies of the people, and that before they should perceiue it: it would furthermore hurt

hurt and much annoie the gardens, becauſe that by the ſame ſticking to the leaues of the herbes and trees, as alſo to their fruits in Autumne, it would drie them, and make them apt and eaſie to be burnt by the heat of the ſun.

The fifteenth Chapter.

Of threſhing corne.

THere remaineth nothing more for the laſt labour of the huſbandman, but to threſh out the corne, for to ſowe it againe, or for to ſtore vp and lay aſide in the garner, and this not ſooner then till three monethes paſſed after the harueſt: for although the corne ſhould be gathered of full ripenes, yet ſtill it goeth forward to more perfection as it lieth in the barne. The Gaſcoynes notwithſtanding fearing that corne left long in the ſheaues ſhould not onely take a greate heat but grow full of butterflies, mothes, and ſmall wormes which are woont to ſpoile it, cauſe the ſheaues to be dried three whole daies in the ſunne, and that in the field where they were mowen, and afterward threſh it in the ſame place, carrying laſtly the corne ſo threſhed into garners: ſo that by that meanes, they ſtand not in neede of barnes to carrie their ſheaues into and there to keepe them. Before the threſhing of it, you muſt be careful to prepare the floore and to ſprinkle it ouer with oxe bloud mingled with oile of oliues not ſalted: and afterward to make it plaine and ſmooth with a pauing beetle or rowler, to the end it may not haue any clefts or creuiſes in it, wherein the corne threſhed out may be loſt, or wherein the piſmires might breede and hide themſelues. The beſt way to threſh it is with flailes, and after to cleanſe it from the chaffe, huskes and other filth with the fan, and laſt of all to ſift it. In any caſe leaue not wheat long in the ſheafe, becauſe it taketh heate, and thereupon becommeth full of butterflies, mothes, and ſmall wormes which eat it vp. In the meane time you muſt not caſt away the chaffe, which is good meat not only for horſes and other beaſtes mingled with prouander, but alſo for to ripen fruits, and to keepe them as we haue ſaid before: in like ſort the Spaniard and Italian do make it ſerue to keep ſnow in al ſommer, for they make deepe pits in the ground wherein they put their ſnow and couer it with chaffe.

To threſh corne.

The floore to threſh corne vpon.

The ſixteenth Chapter.

In what manner the garners are to be made to put corne in.

THE garner wherein you ſhall keepe your wheate, ſhall take his light from the Eaſt, and a little aired from the North and Weſt but principally from the Northeaſt, which keepeth the corne

Wheat garners.

corne alwaies drie and fresh and coole, but not from the South nor from any such like coast or quarters: it shall haue many open holes, by which the whole vapour of the corne may passe foorth, and the coole gentle aire come in: And that it be not flored or planked aboue, to the end that the windes may easily enter in through the open places and tiles of the roofe, that so it may be more fiesh and coole at all times: it must be placed far from all moisture, and other euill smels and vnpleasant aire, and also from all the houses wherein cattell are kept, whether horse, oxen, or other such like: the boorded floore thereof shall be ordered as the earth floore, that is to say, sprinkled with neats blood mingled with oile oliue vnsalted, and after smoothed and made plaine with a rowler or pauing beetle, as in which there is not to be left hole or breach be it neuer so little, without stopping of it with lime and sand. The said floore where the corne is to be laid, shall be watered with vineger: the walles must be made trimme and dressed ouer with morter tempered in water, wherein hath beene steeped the rootes and leaues of wilde cucumber, or with lime tempered with sheepes vrine, which shall be of much vse against all kinde of shrewd beastes that vse to eate the corne.

In the garner thus fitted, shall your corne be laid, being first made very cleane, for the cleaner it is the lesse subiect will it be to weeuils and other vermine: It is true that being in the garner, for the defending of it from this vermine, it is good to remoone it often, and to haue about the heapes some wild organie, or the dryed leaues of pomegranate trees, or wormewood, or drie southernwood: or which is better in the midst often load of drie wheat to mingle one of millet made very cleane: for by the coolenes of the millet, the wheate will be kept from the vermine and taking of all other maner of heate, and when occasion requireth this millet will be easily sifted from the wheate by the meanes of a sieue: and furthermore that it may somewhat increase, you must cast vpon the heapes of corne sal nitrum and the scum thereof, both of them finely powdred, & mixt with very fine earth. And if it should come to passe that the corne should not proone to last and stand sound for long time, and that therefore it is ground into meale, then for the keeping of the said meale, you must make masses or drie lumps, of cumin and salt pounded and lay them in the midst of the meale. Or if it appeare that palmer wormes are bred in the corne, or any other such like vermine, by the ouerheatting of it, you must dust it by and by with a sieue, and after spread it abroad and leaue it in the sun, all the while of the great heat euen vntill euening, and after that it is become hot thus by the sun, and hath beene made very cleane, carry it vp againe into the highest garner that you haue, and thus the vnnaturall heate thereof will cease and all the vermine be killed, and the wheate so coole as that it will be out of the danger

of

of the former ouerthrow. Furthermore as concerning the fanning of corne, the husbandman muſt beware leaſt he be beguiled by the meaſurers, or yet by the meaſures: ſeeing it is a tricke they haue either in powring on the corne to preſſe it downe with their hand, or elſe to ſtrike the meaſure with their knee to cauſe the corne to run the cloſer together, that ſo they may haue the better meaſure: ſuch craftie ſhiftes as this, are the cauſe that the ſecond meaſuring is not anſwerable vnto the firſt.

The ſowing and ordering of other ſorts of graine.

The ſeuenteenth Chapter.

Of Rie.

RIE (called in Latine *Secale*, and of the Ancient writers *Farrago*) craueth not ſuch an induſtrious and carefull ordering, nor yet ſo fat a ground, and ſo well inriched as doth the wheate, for it increaſeth in all groundes in ſuch abundance, that of one bare corne, there will come an hundred, be it neuer ſo badly plowed and dunged. Witneſſes heereof are the people of *Auuergne*, *Limoſin*, *Perigord*, and *Foreſt*, but chiefly thoſe of *Beauce Solongnois*, which is abounding in this kinde of corne; notwithſtanding that the ground thereof for the moſt part be leane, grauelly and very ſlenderly husbanded and tilled by the inhabitants, as thoſe which imploy themſelues a great deale more buſily in keeping of ſheepe, than in growing of corne: and heereby we may learne and take out a new leſſon, namely, that negligence is good for ſome thing, and now and then bringeth his commoditie home with it. It is but a very ſmall and ſtarued graine in reſpect of wheat, and the bread made thereof vnpleaſant, fattie, ſlimie, heauie, like paſte, blacke, and more profitable in the time of dearth, to ſlay and kill the ſharpneſſe of hunger, in the baſe and ruſticall people, than to feed holeſomly and make good nouriſhment of: againe, ſuch as be wealthie and men liuing at eaſe make no reckoning of it. It is true that many doe mingle it amongſt wheate, to the end that the bread made thereof may continue a longer time moiſt and tender: yea and which is more, the Phyſitions of the Court, doe giue directions for the making of bread of this kinde of corne for Kings and Princes to feede vpon in the beginning of their meales (eſpeciallie in ſommer) to procure them a looſe bellie: but they that are carefull of their health, eſpeciallie ſuch as doe not exerciſe and toile their bodies, and ſtudents in generall, the Monkes and ſuch like, muſt auoide to eat the bread, made of the meale of this corne alone, howſoeuer the plowſwaine haue this opinion of it, namely, that it maketh

the

the body ſtrong; and for certaine it is found by manifeſt and daylie experience that the women of *Lyons*, *Auuergne* and *Foreſt* by the vſe of this bread doe become very faire, and to haue more ſolide bodies and more abounding in good and laudable iuice or humours, then others commonly haue. Some likewiſe are of iudgement that the water of Rie bread, is more pleaſant and far better then that of wheate bread be it neuer ſo white. Cookes vſed to worke in paſtrie, doe make ſuch cruſts as they would haue to endure long of Rie flower. This bread is made to feede dogs, and to fat ſwine: all other kinds of cattell, eſpecially hens and horſe, doe abhorre and loath it altogether: this corne is very ſubiect to ruſt, becauſe it keepeth water in the huske or bag wherein it groweth, the remedie whereof conſiſteth in ſuch meanes vſed, as we haue alreadie ſet downe: The ſtraw thereof ſerueth for much vſe in binding of vines, becauſe it is flexible and pliant hauing beene firſt ſteept in water, as likewiſe the meale thereof, to make cataplaſmes of, for the ſuppurating and ripening of impoſtumes: the decoction of the corne killeth wormes if there be ſome coriander ſeede put thereto: in like manner horſe-leaches doe giue it to horſes which are pained in their bellies.

Maſlin.

Maſlin (called of the Latines *Metellum*) is not one kind of corne but a mixture of wheat and rie, or of white corne, which the Latines call *Far adoreum* euen (as we ſhall further declare by and by) and of rie in ſuch ſort, as that theſe two kindes of corne mingled, are ſowen, gathered in and threſhed together: the maſlin delighteth in a mixt kind of earth and tillage, but for the moſt conſiſting of that which is fit for wheat. The bread made of meſlin, is one of the beſt ſorts of bread and eaſie to digeſt.

Secourgion.

Secourgion is a kind of corne that is verie leane, wrinkled and ſtarued, ſomewhat like vnto barly, and it is not vſed to be ſowen in Fraunce, except in the time of famine and dearth, and then alſo but in ſuch countries, as are barren and very leane, and that to ſtay the vrgent neceſſitie of hunger rather then to feede and nouriſh. It hath his name from the Latine words *Succurſus gentium*: The greateſt part of *Perigord* and *Limoſin* doe vſe this ſort of corne: it may ſeeme to be a degenerate kind of corne, and may be called bad or wild corne. It muſt be ſowne in the thickeſt and fatteſt ground that may be choſen: howſoeuer ſome ſay otherwiſe, as that it delighteth in a light ground, in as much as it ſprouteth out of the earth, the ſeauenth day after that it is ſowen, the thicker end running into rootes, and the ſmaller putting foorth the greene graſſie blade which flouriſheth and groweth out of the earth. The fitteſt time for the ſowing of it, is about

about the moneth of March in cold places, or about the eight or tenth of Ianuarie if it bee a myld winter and not sharp and pinching. This is that kinde of graine of three monethes growth, whereof *Theophrastus* speaketh in his booke of plants, howsoeuer *Columella* doe not acknowledge any kinde of graine of that age. *Theophrastus* in like manner maketh mention of a kinde of graine of threescore daies or two monethes growth, and of another of fortie daies growth. I heare say that in the West Indies about *Florida* there grow sortes of corne some of two, some of three monthes, and some of fortie daies: we see it very ordinarie in France to haue corne in three monethes, namelie in the countries of *Beauce, Touraine, Lyonnoise, Sauoye, Auuergne, Foreſt, Prouence, Chartrain*, and others in which the corne being sowen in March is ripe and readie to bee cut downe in the third moneth. The occasion of sowing it so late is either the waters or excessiue cold, or snow, or some such other hard weather, which kept and hindred it from being sowen any sooner. Such graines and sortes of corne as are of three or two monethes, or of fortie daies, and amongst them especially the *Secourgeon* doe yeelde a very white and light floure, because it hath but very little bran, and the graine hauing drawne very small store of substance for his nourishment, but such as is of the lightest part of the earth (and therefore small store of bran) by reason of the small space of time that it stayed in the earth: The bread made of this corne is very white, but withall very light, and of small substance, more fit for countrey people and seruants in families then for maisters and wealthie persons: Againe in countries where it is of Account, they vse to mixe wheate with it, to make household bread.

Blanche.

Blanche is a kinde of wheate which the Latins call *Far clusinum*, and old writers *Far adoreum*, as a corne or graine woorthie to bee highlie thought & made of, for his excellency & goodnes sake: it is very hard and thick, and requireth a strong & rough ground though it be not al of the best husbanded. It groweth also very well in places, and countries that are very cold, as not fearing any cold be it neuer so outragious: Neither doth it mislike and refuse drie and parched groundes, and such as lie open to the excessiue heate of sommer; the corne cannot bee driuen from his huske, except it bee fried or parched: againe for to grinde and make bread of it, they vse to fry or parch it, but when they vse to sow it, they let it alone with the huske, and in it they keepe it for seede. It is very massie and weightie, but not altogether so much as wheate, but yet more cleane and pure then wheate, and yeeldeth more flower & bread then any one sort of wheate besides. This kind of wheate is very rare in France, but very common in Italie, where it is called *Saccalta*.

Fine

Fine wheate or winter wheate.

There is a kinde of ſmall corne that is very white: which the Latines call *Siligo*, whereof is made white bread, called therefore of the Latines *Siligmitis*. The French cannot as yet fit it with a name. It muſt be ſowen in very open places and ſuch as are hot and throughly warmed by the ſunne: although it doe not vtterly refuſe an earth that is thicke, moiſt, ſiimie, and of the nature of walkers earth, ſeeing that good husbandmen doe likewiſe report of it, that there needeth no ſuch great care to be taken about the making of this graine to grow, and withall that if a man vſe to ſowe wheate in a moiſt and muddie ground, that after the third ſowing it will degenerate into this kinde of wheate.

Amelcorne.

There is yet another kinde of corne, which the Grecians and Latins call *Olyra*, of a middle ſize betwixt wheate and barlie, vnlike altogether vnto winter wheate whereof wee laſt ſpake, but of a ſort and faculti like vnto ſpelt, whereof wee will ſpeake next in order. Of this graine *Dioſcorides* maketh mention, & *Matthiolus* calleth it in French *Seigle blanche*: the tilling and ordering of it is like vnto that of ſpelt. There is very white bread made thereof: there is but ſmal ſtore thereof in France.

Speltcorne.

Speltcorne is that which the Latines call *Zea*, and hereof the ancient Romaines did make great account, and gaue it to name *Semen*, by the waie of excellencie, as the Italians in ſuch places as where the ſaid ſpelt groweth in great abundance, doe call it *Biada*. The graine is leſſe and blacker then wheate. It is found ſometime ſingle, ſometime double in an eare ſet with a long beard. It muſt bee ſowen in a very ſtrong and hard ground, for otherwiſe it will not thriue, neither is there any ſort of wheate which ſo troubleth and weakeneth a ground as this, but the bread that is made thereof is excellent: and of it likewiſe the Italians vſe to make a ſingular kinde of furmentie.

Courſe wheate flower: or fine wheate meale.

Courſe wheate flower is that which of the Latines is called *Similago*, and is made of wheate that is excellent good, hauing the greateſt bran onelie ſifted from it, but being ground of the beſt mill that may be gotten, howſoeuer the French name *Semole* which ſeemeth to bee deriued from theſe Latine ones *Sine mola*, may ſeeme to argue the contrarie. We haue not any of the corne in this countrie whereof the *Semole* is made: but in *Prouence* it is ſowen in great quantitie: as alſo in *Campanie* and in the countrie of *Naples*, and from thence there is great ſtore of this fine meale brought, which phiſitions do preſcribe to their ſicke patients to make Panade or papmeate of with the broth of a capon, notwithſtanding that *Galen* and the greateſt part of phyſitions

ons doe affirme, that the fine meale called of the French *Semole*, is of a groſſe and ſlimie iuice, and not digeſted without difficultie, and therevpon iniurious to ſuch as haue neede of a fine and attenuating nouriſhment. It is certaine that it is of great nouriſhment, as is alſo the bread that is made thereof. In ſteede of *Semole* we vſe meſſlin: and as concerning the wheate whereof the courſe flower *Semole* is made, it craueth ſuch ground and manner of husbanding as meſſlin doth.

Furmentie.

Furmentie is that which the Latines call *Alica* or *Chondrus*, and it is a kinde of wheate, whereof (after that it hath beene ſteeped for ſome time in water and afterward braied and husked, and then in the end dried againe in the ſunne and ground ſomewhat groſly) is made a kinde of groſſe meale, reſembling oatmeale very much, whereof ſometimes is woont to be made papmeate, ſometimes it is mixt in meate broth, & ſometimes panade withall; all which meates, to ſay the truth, doe nouriſh a great deale more then they profit the health of the bodie, in as much as they ingender a thicke, clammie and groſſe iuice, very hurtfull for them that are ſubiect vnto obſtructions or vnto the ſtone and grauell.

Turkie wheate.

Turkie wheate (ſo called, or rather Indian wheate, becauſe it came firſt from the weſt Indies into Turkie, and from thence into France, not that it is ſowed there any otherwiſe then for pleaſure, or for to cauſe ſome admiration at the ſtrange things which Frenchmen themſelues doe admire and make much account of) muſt be ſowen very carefully after this manner: the field muſt be diligently tilled according to all the ſorts of earings which are woont to be beſtowed vpon any arable ground, afterward toward the end of March, at ſuch time as the ſunne beginneth to affoord his hot and comfortable beames in franker and freer ſort the ſaide wheate muſt be ſteeped in water two whole daies, and when this is done, to keepe it till the earth receiue ſome prettie ſhowers: which hapning, then preſently to open the earth with ſome ſharpe ſtake, and that all along as ſtraight as a line, but with equall and ſufficient diſtances: and to caſt into euerie one of theſe holes foure or fiue graines of this wheate, and by and by to cloſe in the earth againe with your foote, and ſo in this ſort to fill and ſet a whole field with this corne: If the earth be fat and the ſeed full and well fed it will not faile to ſprout within ſeauen daies, and to be readie to mow within fortie daies, two monethes, three monethes, or at the furtheſt foure monethes, ſooner or later according to the goodnes of the gronnd, and power of the ſun, that is to ſay earlier in a hote place and good ground that lyeth open vpon the ſunne, but more late in a cold ground, and a leane place. It hath the like temperature that our wheate hath, but ſomewhat more hote, as may eaſily

be

be gathered by the sweetenes of the bread that is made thereof: the meale thereof is whiter then that which is made of our wheate, but the bread made thereof is more grosse, thicke, or close and of a more slimie substance, in such sort as that the nourishment made thereof is likewise more grosse, and apter to ingender obstructions; wherefore if the dearth of wheat and famine doe force and compell you to sowe of this Turkish wheate, to make bread thereof, it will doe better if you mingle it with the flower of our wheate, then and if you should vse it by it selfe all alone. The meale of this wheat in as much as it is thicke and clammie, will be good to make cataplasmes of, to ripen impostumes withall: for being apt to stop the pores of the skin by his clammines, it cannot choose but worke such effect.

Sarasins wheate.

Sarasins wheate is a graine very ordinarie and common throughout all France and more abounding without comparison then the foresaid Turkie wheate: it must be sowen in all manner of groundes, because it refuseth not to grow in any, whether it be grauelly or of any other qualities whatsoeuer, and that especially in Aprill in hot places, or somewhat later in those that are colde, and it is so forward and hastie, as that it will ripen twise and yeelde you two crops in a yeere, in one and the same ground, being in a hot grounde, as is to be seene in *Italie*. It may be mowne at the end of three moneths after it is sowen, in this countrey it is most vsed in the fatting of hogs, pigeons, and other fowles, and in the time of dearth and famine to make bread, which will be a great deale better, if with this corne be mingled the corne of our owne countrie wheate. It may be made into grosse meale, euen as the graine called furmentie, but better without comparison then that of millet to be imploied in meate brothes, in panades and pap meats, as also to make tartes with cheese and butter. This is a meate that is pleasant inough, and not much loading or charging the stomacke, notwithstanding that it be windie, for therein it is not so excessiue as the pease or beanes.

Goates wheate, and Typh wheate

There are yet remaining two other sorts of wheate, which the Latins call *Tragos Cerealis*, and *Typha Cerealis*, whereof *Dioscorides* and *Galen* do make mention. Typh wheate is very like to our rye, and doth make a very blacke bread, and very vnpleasant also when it is olde, though it be otherwise very pleasant when it is newe baked, after the manner of rye. The goates wheate is not very much vnlike vnto the graine called furmentie, saue onely that his meale yeeldeth more bran without comparison, and so maketh a fitter bread to loosen the belly then to feede or nourish it. These wheates are not so much as to be seene in France, and therefore I meane not to make any longer discourse thereof.

Of

Of all manner of March corne.

The eighteenth Chapter.

Barley.

AFter that we haue thus largely ſpoken of wheat & other corne, it remaineth that we ſhould conſequently ſpeake of all manner of pulſe: the ordering and husbanding whereof to ſpeake in generall, is like vnto that of the other graine going before, as namely, in the gathering of ſtones from off them, in manuring and giuing them their firſt, ſecond, & third earing, as alſo in clodding, ſowing, harrowing & mowing: but differing notwithſtanding in ſome things, as namely, in their nature; and therefore it will be beſt to make a particular deſcription thereof. *Barley.*

Barley muſt be ſowen in a leane, drie, and ſmall ground, or elſe in a ground that is verie fat throughout, becauſe it doth bring down and diminiſh the fatnes of a ground mightily: and for that cauſe it is either caſt into ground that is very fat, the force and goodnes whereof it ſhal not be able to hurt: or into a leane grounde wherein a man ſhoulde not ſow any thing elſe ſo well. It muſt be ſowen in a ground that hath had two earings, in ſome countries in the moneth of October, but in this countrie after the fifteenth day of Aprill, according to the common prouerbe, (at Saint *Georges* day you muſt ſow your barley, and lay your oates awaie) if the ground be fat, but and if it be in a leane ground it muſt be ſowen ſooner, not ſtaying for any raine, in as much as that according to the prouerbe, wheat muſt be ſowen in dirt, and barley in duſt: for barley cannot indure any great ſtore of moiſture, being of it ſelfe drie, open, and colde: againe, barley being ſowen in moiſt places, and much watered with raine water, doth eaſily canker and turne into darnell and oates: the ſame manner of ordering is giuen to the barley called mundified barley, and that becauſe the chaffe thereof falleth preſently, and cleaueth not vnto the corne, as it doth in common barley. When you perceiue it ſomewhat ripe, you muſt mowe it ſooner then any other corne: for it hath a brittle ſtalke or ſtrawe which is very apt to breake, when it is very drie, and the corne being but weakly incloſed within his huske, doth eaſily and of it ſelfe fall vnto the earth: and hence alſo it becommeth more eaſie to threſh and ſhake out, then any other graine. After the corne is mowen, it wil be good to let the earth lie idle a yeere, or elſe to manure it throughly, and ſo to take away all the euill quality that is remaining and left behinde. In a deere yeere it is vſuall to make bread of barley, as wee ſhall declare heereafter, and that better for the poore people then for the rich, and yet in one point to be praiſed, in as much as it is good and *Barley bread.*

holesome for them that haue the goute: the assured truth whereof is found out rather by experience then reason. Notwithstanding in as much as barly (as *Galen* teacheth) whether it be in bread or in papmeate, in ptisanes, in mundified barly, or otherwise imployed doth coole and yeeld a thin kinde of nourishment and somewhat cleanseth the bodie, in that respect it may be profitable for them that haue the gowte, as those that are full of humors, and subiect to distillations falling downe vpon the iointes.

Mundified barlie. There is made of barlie a certaine kinde of drinke, which is called a ptisane, and a meate that is good for sicke persons, called mundified barly, which the good wife of the farme may make in this sort. Take barly well clensed and husked, boile it till it brust, and till it be become like vnto a papmeate, after beate it in a morter and straine it through a very fine strainer, put vnto it sugar, or the iuice of sweete almonds, or of poppie seede, melons or lettises, according as occasion shall be offred. Or else, Take of the best and newest barlie, put it in a morter, and cast vpon it warme water, as it were to wet it, but not to make it swim, afterwarde beate it gently with a wooden pestell, in such sort as that the huske that couereth it may be forced off, then chafe it betwixt your handes, that so you may free it quite from huskes: then afterward drie it in the sunne: when you haue this done, take a handfull of the said barly, and put it in a pot, which it may fill to the halfe, and filling vp the other halfe with water, let it boile by little and little vntill such time as it bee burst and become like papmeate, let it run through a linnen cloth and so straine out the iuice.

Oates. Oates notwithstanding that they grow amongst wheate and barly without being sowen, as an euell and vnprofitable thing, notwithstanding for the profit comming of them for the feeding of great cattell, as also of men in the time of necessitie, they deserue a proper and conuenient kinde of husbanding. They loue to be sowen in leane places, which are drie, well aired and haue beene alreadie twise eared, and that in February or March, but not later: they craue watering and then they grow both fairer and fuller set. They must be gathered presently after that rie and barlie are in.

Oate-meale. Although oates be not vsed to make bread of except it be in the time of great dearth, notwithstanding some doe beate them in a morter and doe make a meale thereof called oate-meale, which is boiled either alone, or else with flesh, to vse in manner of a panade.

Grauell. Physitions are of iudgment that oate meale so made doth feede very well, and is good against the grauell and difficultie of vrine: for the truth whereof I refer you to the *Britaines* and *Angeuines* which vse it for the same effects. When it is boiled all alone, for the making of it the more pleasant, there is wont to be put vnto it cowes milke, goates milke,

milke, or the iuice of sweete almonds with sugar. The Flemminges vse to make papmeate thereof which they loue exceeding well. The Muscouites distill the water of oates, and vse it for want of wine, and such water heateth and maketh drunke no lesse then wine. *Water distilled of oates.*

Millet.

Millet, (as those know verie well which dwell in the countrie *Bearne*, *Bigorre* and *Armignac*) after that it hath steeped some certaine time in water, would be sowen, either morning or euening in the coole thereof in light and small moulded ground: and it groweth not onely in grauellie ground, but also in sand, when the countrie is wet and moist; but in any case it would not be sowen in drie grounds, and such as consist of Fullers earth, or are marly, neither must it be sowen before the spring, for it requireth heate. Wherefore it maie conueniently be sowen in the end of the moneth of March, or else somewhat latter, that so it maie enioy the benefit of the dew a long time; it putteth not the husbandman to any great charges, for a little seede will sow a great deale of ground. So soone as it is sowen it must be pressed downe with a hurdle of wickers well laden, to keepe it from the heate of the sun in the springing vp thereof: for otherwise the seede would grow vp and drie awaie, through the vehemency and heate of the sun beames. Notwithstanding it would be oft and verie well weeded, for the rooting vp of all manner of ill weedes, especially the blacke millet. So soone as it may bee spied peeping foorth of the earth, and before that by the operation of the Sun, the corne doe show, it must be pluckt vp by the hand, and be laid in the Sun, afterward to drie, and lastly shut vp in some place where it may bee kept, and being thus ordered it lasteth longer then any other manner of corne. Millet doth good vnto the fieldes wherein it is gathered; in this respect, namely that wormes will not hurt the corne that shall bee sowen there presently after any whit at all, seeing they will leaue the graine that is sowen and cleaue to the straw of the millet.

In the time of dearth they vse to make bread of millet, but vnpleasant inough, especially when it is setled, and the inhabitants of *Gascoigne*, & *Campaigne* do vse a papmeate made of millet with milke, and that not of the pleasantest taste; as well the bread as the papmeat made of millet is of small nourishment, besides that they make obstructions, and that because that millet is cold in the first degree, and drie in the third; millet fried with salt and flowers of cammomill and put into a bag, doth serue against the paines of the colicke and wringings of the belly: To keepe purgatiues as *Rubarbe*, *Agaricke*, yea and flesh also from rottennesse and corruption, it is good to bury them in millet.

Sesame.

Sesame would be sowen in a blacke grounde, that is somewhat rot-

ten and moiſt: it groweth well alſo in ſandy and fat grauelly grounds, or in mingled grounds, and it is verie fruitfull, euen no leſſe then millet or panicke. It is true that the good houſholder needeth not trouble his braine much with the ſowing of it, ſeeing it is apt to make the ground altogether barren, and yet is good for nothing except the oile that is preſſed out of it, and the cakes which liquoriſh women vſe to make of the meale. It muſt not bee ſowen but in the midſt of ſommer, whiles the times continue drie, and that there is no raine looked for of a long time, for the raine doth hurt it after that it is ſowen, cleane contrarie to other plants, which (all of them) reioice in raine after they are ſowen. The oile which is preſſed out of the ſeede of Seſame, doth neuer freeze, and is the lighteſt of all other oiles, and yet being mixt with wine or aqua vitæ, ſinketh to the bottome. There is no account to be made of this graine for nouriſhment, becauſe it is giuen to ouercome the ſtomacke, and is hardly digeſted, as is all oilie matter.

Oile and cakes of ſeſame.

Lentils.

Lentils muſt be ſowen at two times, in autumne, and moſt commonly, eſpecially in France and cold countries, in the ſpring time, whiles the moone increaſeth vnto the twelth thereof, and either in a ſmall or little moulde, or in a fat and fertile ground: for when they be in flower they deſtroie and ſpoile themſelues through too much moiſture, or by putting too far out of the earth. And to the end they may grow the more ſpeedily & the greater, they muſt be mixt with drie dung before they be ſowen, and fower or fiue daies after that they haue beene ſo laid to reſt in this dung, to ſow them. They will keep long, & continue if they be mingled with aſhes, or if they be put in pots, wherein oile and preſerues haue been kept: or and if they be ſprinkled with vineger mixt with Beniouin.

Lentils (howſoeuer ancient Philoſophers had them in eſtimation) are of harde digeſtion, hurtfull to the ſtomacke, filling the guts full of winde, darkening the ſight, and cauſing fearefull dreames, and withall are nothing good if they be not boiled with fleſh, or fried with oile.

Faſels.

Faſels grow in ſtubbly grounds, or rather a great deale better in fat grounds, which are tilled & ſowen euery yeere; & they are to be ſowen betwixt the 10 of October, & the firſt of Nouember, or elſe in March, as other pulſe, after that the ground hath been eared about the 11 of Nouẽber. They muſt be ſowen after that they haue been ſteept in water for to make them grow the more eaſily, and that at large when they are ſowen, and alwaies as they ripen to gather them. They make fat grounds where they be ſowen: they are accuſtomed to beare much fruite: they keepe a long time; they ſwell and grow greater in boi-

ling,

ling, and are of a good pleasant taste vnto all mens mouthes: It is true that they are windie, and hard to digest: but yet notwithstanding they are apt to prouoke vnto venerie, if after that they be boiled, they be powdred ouer with pepper, galanga, and sugar, and yet more specially, if they be boilde in fat milke vntill they burst: if you minde to take away their windines eate them with mustard, or carawaie seede: if you haue beene bitten of a horse, take Fasels, chawe them, and apply them so chawed vnto the greene wounde. Yoong gentlewomen that striue to be beautifull, may distill a water of Fasels that is singular good for the same end and purpose.

Lupines.

Lupines craue no great husbandrie, are good cheape, and do more good to the ground then any other seede: for when as vineyardes and arable groundes are become leane, they stande in steede of very good manure vnto them: likewise for want of dung, they may be sowen in groundes that stande in neede to bee dunged, if after they haue put foorth their flowers the seconde time they bee plowed vnder the grounde: they grow well in a leane ground, and such as is tyred and worne out with sowing: and they may be sowen in any ground, especially in stubblie groundes, such as are not tilled, for in what sort so euer they be sowen, they will abide the roughnes of the grounde, and negligence of the husbandman, neither doe they craue any weeding, as well in respect of their roote which is single, as also for that if it were hurt they woulde die presently, and because also that it shoulde be but labour lost: for they are so far off from being infected & wronged with weeds, that they euen kill them, and cause them to die. And this is the cause why many sowe them in the middest of vineyardes, to the end they may draw vnto them all the bitternes of the vineyarde, as being the qualitie most familiar vnto them, and with which they best agree. Notwithstanding they may not be sowen deepe: for when they flower they are made no account of. Of all other kinds of pulse they onely stande not in neede to bee laide vp in garners: but rather vpon some floore, where the smoake may come vnto them: for if moisture take them, they will grow full of wormes, which eate vp that which shoulde make them sprout, and that which is remaining can doe no good: they must be gathered after raine, for if it should be drie weather, they would fall out of their cods and be lost.

Lupines are good to feed oxen in winter, but they must be steept in salted and riuer water, and afterwarde boiled: they serue also for to feede men, to make breade thereof when it is a time of dearth of other corne. Some doe note this speciall propertie in them, which is, that they turne about euery day with the sunne: in so much as that by them, workemen are taught the time of the day, though it bee not cleere and sunshine. *Wherefore lupines are good.*

Wormes in litle children.

Lupines ſtampt and laide vpon the nauell, do kill wormes in little children: the decoction thereof doth prouoke the termes of women, and taketh away the obſtructions of the ſight, by reaſon whereof manie doe wiſh them to be taken of yoong maidens and women which haue pale colours. Their meale is ſingular good in cataplaſmes to reſolue the ſwelling of the kinges euill, and other hard tumours, as well boild in honie and vineger, as in honie and water, and likewiſe for the ſciatica.

Beanes.

Beanes muſt be ſowen in a fat ſoile, or elſe a grounde that is well manured, and cared with two earings, and although it be in ſtubblie grounds, and ſeated in low bottoms, whither all the fat and ſubſtance of the higher partes doth deſcend; notwithſtanding the earth muſt be ſliſed and cut ſmall, and the cloddes broken before they bee ſowen: for albeit that amongſt all the other ſorts of pulſe there be not any that do ſo little waſte and vſe the ſtrength and iuice of the earth; notwithſtanding they deſire to bee well and deepe couered within the earth: they muſt be diligently weeded, at ſuch time as they pepe out of the earth, for ſo the fruite will be much more, and their cods far the tenderer. They may be ſowen at two times of the yeere, in Autumne where it is a ſtrong grounde, and the beanes bee great; and in the ſpring, eſpecially in this countrie, in a weake and light grounde, the beanes being but ſmall and of the common ſize: thoſe which are ſowen in Autumne are more worth then the other, ſo that the hindes let not to ſay, that they had rather eate the huskes or ſtalkes of beanes ſowen in due time, than the beanes themſelues of three monethes olde, becauſe they yeelde more fruite, and haue a greater and better ſtored graine. But at what time ſoeuer you ſowe them, you muſt haue ſpeciall regarde to ſowe them all about the fifteenth day after the change of the moone, becauſe that in ſo doing they will bee the better loaden, and becauſe they will not be ſo much aſſailed of little vermine as and if the moone were newe. The daie before they be ſowen, you muſt ſteepe them in the lees of oliues, or in water of nitre, to the ende that they may beare the more fruit, be more eaſie to boile, & not to be ſubiect to be eaten of weeuils or larkes. They muſt likewiſe reape and pul them vp in the new of the moone, before day, and after leaue them in the aire to drie, and threſh them out before the full moone, and afterward carrie them into the garner, for being thus ordered vermine will not breede in them. Againe they prooue more profitable being planted then ſowen, in a good ground, that is well dreſſed, tilled, fatted and manured, which ſaid ground, if it be ſowen the yeere following with wheate, will yeeld a more copious and plentifull harueſt, in as much as beanes doe fatten a grounde more than any other kinde of pulſe. If you would keepe

them

them long you must sprinkle them with salt water: but if you meane to boile them, you must bee sure to keepe the salt from them, because that salt water doth harden them: they must not bee left in the colde aire; for the cold also doth make them the harder to boile. To keepe them from being eaten of wormes, they must bee annointed or rubd ouer with oile oliue, one after another vntill such time as they be well licoured with this oile. The flowers of beanes notwithstanding that they bee of a pleasant and delightsome smell, doe hurt a weake braine, and such a one as is easily caried away and ouercome: and hereupon it commeth to passe that there are a great number of fooles, when beanes are in flower.

The cause why there are many fooles, when beanes flower.

Small peason.

Small pease are no lesse profitable for the fatting of ground that is leane then lupines: It is true that if you looke to haue good store of them and well codded, you must sow them in fat and warme grounds, and in a temperate and moist time, as in Februarie or March, and sometime in September in the increase of the moone: and yet it is hard for them to indure and holde out the winters colde, for they alwaies desire the full fruition of the sunne, and doe grow a great deale the fairer when they doe enioy it accordingly, and when also they are borne vp to that ende of stickes, rather then let fall flat to the ground to creepe vpon it; they must bee sowen thin, because their stalkes doe spread themselues further then any one other kind of pulse. They are very subiect to bee eaten within of wormes, and yet those which are so eaten of wormes are better to sowe then the other which are whole & sound. For this cause, if you will preuent the wormes, that they may not hurt and hinder your corne, sow peason first in the place: It is true that for the better growth and prospering of them, the thicke & grosse seede is most conuenient to be sowen, especially if it be laid in water to steepe therein a night, because thereby they growe the more easily, and lose some part of their saltnes in being steept, by which meanes they recouer their naturall verdure againe. They must be gathered in the decrease of the moone, presently vpon their being ripe, for else they drie vp, and fall out of their swads: the earth wherein they are sowen, standeth in neede but of one earing.

Ciche peason.

Ciche peason doe likewise grow in fat and moist places, they must bee sowen in a rainie time, they doe greatly loade and burthen the earth, and for that cause are neglected of the wiser sort of husbandmen. Notwithstanding if you will sow them, you must steepe them in warme water a day before, that so they may grow and put forth of the earth the sooner and greater. Some to haue them grow the fairer doe steepe them and their cods in nitrous water. To keepe them that passengers and other folke may not gather them to eate when they are

ripe, you muſt water them fiue mornings together before the Sunne riſe with water wherein haue been ſteeped the ſeedes of wilde cucumber and wormwood: and the deaw within fiue daies after will haue taken away all the bitterneſſe thereof. Such practiſes are likewiſe good for to be vſed about ſmal peaſon and beanes. The vſe of them is good for ſuch as are ſlowe to performe the act of carnall copulation, and eſpecially to carrie away grauell and to breake the ſtone, as alſo for ſuch as haue weake lungs and low & weake voices. They are alſo good againſt melancholie, and doe cut off troubleſome thoughts and cogitations, put in place thereof iollie conceits and merrie moodes, and then they being laid forth in the moone ſhine whē it is in the increaſe, and before the ſunne riſe, they muſt bee ſprinkled with oile oliue, afterward ſteeped in warme water to ſoften them, and laſtly boild for to be eaten. The way to vſe them is rather to ſup vp their broth made with the rootes of parſlie, then to eate the peaſon.

Small ciche peaſon.

Small ciche peaſe called of the Latines *Cicercu'a*, muſt be ſowen in fat places and in a moiſt time, as in Ianuarie or Februarie: they doe leſſe harme to a field then any other pulſe, but for the moſt part they neuer come to profit: for when they are in flower they cannot abide drouth, nor any ſtrong ſoutherne windes at ſuch time as they leaue flowring.

Great wilde tare and bitter fetch.

The great wilde tare and bitter fetch doe deſire leane places and ſuch as are not moiſt: for ſometimes by putting foorth to freely and growing too much, they ouerthrow themſelues. They may be ſowen in autumne or in the ende of Ianuarie, and all the moneth of Februarie, but not in March: becauſe if it ſhould be ſowen in this moneth it woulde hurt the cattell, eſpecially oxen, troubling them in their braines.

Fetches.

There are two ſeede times for fetches, the firſt when they are ſowen for to feede cattell, and it is about the fifteenth day of September: the ſecond in Februarie or March, & this is for to make bread of for to eate, being mixt with other corne: both of them may bee ſowen in vntiiled groundes, but it is better when they are ſowen in groundes that haue had their three earings. This ſeede loueth not the deaw, and therefore it muſt be ſowen two or three howres after ſunne riſe, when all the moiſture thereof is ſpent and conſumed, either by the winde or by the ſunne, and it muſt not alone be ſowen, but it muſt alſo be couered the very ſame day, becauſe, that if the night ſhould come vpon it and wet it but a little before it were couered, it would quickly become corrupt and putrified. The ground wherein it is ſowen needeth not any more then one earing, and when it is ſowen it needeth no weeding,

ding. In any case it must not be sowen before the fifteenth day of the moone, for otherwise the snailes will annoie it. In like maner it must not be sown neere vnto any vine or orchard, or any place, where there are trees growing, because it draweth vnto it the iuice of such plants as be neere it, and yet the fetch doth not make the ground leane, but rather fat it: and that it is so, appeareth; because that so soone as the fetch is taken away out of the fields, there may peason, millet or any other sort of pulse be sowen.

Panicke.

He that would sow panicke must make choice of a light, grauelly, sandie or stony ground, & such a one as is situate amongst hils and on the tops of hils, and yet whereas there is no little resort of water, for that it being hot by nature, groweth and putteth foorth more easilie than millet. It must be sowen in sommer, and it groweth so speedily, as that it may be mowen within fortie daies after that it is sowen. The inhabitants of *Gascoigne* make bread thereof, but it is very vnpleasant, because it is verie short and apt to crumble away, euen like ashes or sand. The *Perigordians* frie it with butter or oile: others eate it with milke or meat broth.

Fenugreeke, cumin, and mustard seede.

For the sowing of fenugreeke you must make choise of such ground as you would for the fetch, which you must not cut the second time, seeing the first if it be done thicke and small, and not deepe, will serue: for if the graine should be couered aboue foure fingers, it would not be able to sprout and spring vp, and therefore the plough and harrow both, must goe but lightlie ouer it. The meale of fenugreeke with brimstone and nitre, doth take away the freckles of the face: If you mingle it with a fourth part of the seedes of cresses in vineger, it will proone a singular remedie for the falling of the haire called *Tinea*. If you boile it in honied water putting thereto some swines grease, it will resolue the swelling of the testicles, hands, feet and vnder the eares, and is profitable against the wrenches of ioints. The decoction therof drunke oftentimes, doth infinite good to such as haue beene troubled with an old cough, and likewise for the vlcers of the brest: for the destillations and rheumes falling vpon the eies, you must wet clothes in the decoction of this seede, and applie them vnto the browes. And as for cumin and mustard seede, wee haue spoken of them in the second booke.

Medicke fodder or snaile clauer.

There is not either any pulse or other feeding which is more agreeable or more pretious for the feeding of beastes than snaile clauer, called in French *Sainct foin*, for that it may seeme to spring out of the earth, and as it were of a more speciall fauour from God, not onely for the nourishing and fatting of herdes of cattell, but also to serue for

phy sicke,

phyſicke, for beaſtes that are ſicke, and in that reſpect it is called of the Latines *Medica*. Some call it *Burgundie* haie, becauſe the *Burgundians* haue beene alwaies verie carefull for the ſowing and tilling of this herbe; The inhabitants of *Picardie* call it *Foinaſſe*, and many haue giuen it rhe name of great trefoile. Howſoeuer the name goe, the benefite of this graſſe is ſo great, as that euerie carefull husbandman ought continually to reſerue the better part of his groundes to bee ſowen therewith. Make choiſe therefore of the ſowing and growing of great ſtore of this graſſe, of an eeuen ground that is very cleane and fat, eaſie to bee plowed, and which hath had three earings before it was ſowen, as alſo which hath beene well dunged, well harrowed, and digged and delued rather in the decreaſe of the moone, than plowed with the plough, beginning the worke in Iune, afterward in Auguſt, October, December, and Februarie, to the end that the weeds which are in the ground may be ſufficiently killed, as well by the heate of ſommer, as the cold of winter. After that you haue made the ground well pleaſing, and fit by ſuch induſtrie, begin to ſowe it in the ende of Aprill, during the new of the moone, and toward the later end of the day, for being watered by the dewe of the night, it will ſpring more ſpeedily and eaſily out of the earth, then and if it were ſowen in the heate of the day, becauſe it would be burſt continually, and woulde come but to ſmall effect and profite. You muſt not be niggardly in ſowing of it, for by how much the more ſeed you ſowe, by ſo much the more thicke will the graſſe grow; neither will there groweanie other graſſe there, and ſo there will alſo the more profite growe and riſe thereupon to the good houſholder. So ſoone as it is ſowen, you muſt harrow it euerie manner of way, as longwaies, broadwaies, and ouerthwart, with harrowes or rakes of woode ſet thicke with teeth, but not of iron, becauſe it is an enemy vnto iron: afterward you muſt water it gently for the firſt time, for and if you ſhoulde water it forcibly, and with abundant ſtore of water, you ſhoulde driue the ſeede all to one ſide of the field, and yet you muſt not water it after September vnto the end of Aprill. It will be good to cut it downe with a ſieth fiue or ſixe times the firſt yeere, and ſo proportionably the yeers following: for it endureth ten yeeres, yea thirty as *Plinie* ſaith, without ſtanding in neede of being ſowen againe. The fit time to cut it downe is May, Iune, Iuly, and Auguſt, and the new of the moone: in the meane time you ſhall not let it lie vpon heapes any longer then a day in the meadowes, for if it ſhoulde ſtaie there any long time, it would raiſe ſuch a heate, as that it would ſmother and kill whatſoeuer were vnder it, to the keeping of it for euer growing againe: wherefore it wil be good to carrie it elſe where, and to dry it afloone as poſſibly may be, ſtirring it euery day, from day to day. Againe, you muſt not let the cattell feede neere vnto this graſſe, in as much as not their

tooth

tooth onely, but their very breathing of it also is very noisome vnto it, and that so greatly, as that it afterwarde becommeth either barren, or else dieth presently: it must not be giuen greene for cattell to eate, least it make them sicke by reason of the moisture and heate that is therein: it must staie till it be drie before you giue it them to eate, and then also but in small quantitie: for that this grasse begetteth in them such store of blood, as that of the much eating thereof, they would be strangled therewith. The good husbandman must be carefull to gather and reserue seede of this snaile clauer, to sowe the same when it shall be requisite: it must not be gathered the first yeere that it beareth, by reason of his weakenes, but in all the other following, and that in the monethes of Iuine and Iulie, so soone as the huskes wherein the seede is contained shall appeere drie, and the seedes themselues be turned yellow.

Mixt prouander.

Mixt prouander must be sowen in fat and well manured places, and such as haue beene twise eared: it will be very good if it be sowen with pilde barley, sometimes it consisteth of barley, oates, fetches, and fenugreeke, which are let growe hande ouer head, and are cut afterwarde either greene or ripe, to make fodder of for cattell in winter.

Rice.

If you will sowe rice you may do it, but it is like to prooue rather a worke of curiositie then of profite, for rice is a commoditie properlie belonging and growing amongst the Indians, from whence also it is brought hither vnto vs in France. Therefore for the sowing of rice either white or red, choose out some place that is very moist, and in case you haue no such amongst your arable ground: then choose out some field that is leane, foule, and nothing well clensed, or some other which is light and weake, but yet euen, and through which you may conuey some little brooke, or gutter of water. Eare the ground thrise where you meane to sowe your rice, and when you haue thus plowed it ouer thrise, sowe your rice therein, which you must first steepe for one whole day in water: so soone as you haue sowne it, draw your little brooke along through it, and there suffer it to continue fiue whole monethes the depth of two fingers: and when as you perceiue the blade to begin to shoote foorth his eare (knowing that it also flowreth and seedeth at the same instant) then double the quantitie of water to keepe the fruite from blasting or spoiling otherwise. If you order it thus, you shall not onely reape great quantity of rice, but you may also sowe it three yeeres together one after another, without resting of the ground, and yet the last yeere will not be lesse fruitfull then the former: yea, which is more, you shall make the field more fat, frolicke, in better plight, and cleaner from weedes, and cleaner

from

from noisome beasts then it was before: yea, and further then this, you may sowe therein for three yeeres more, one kind of graine or other, whether wheate or meslin, whereof you shall not repent you in the time of harueſt, you shall finde it so faire and profitable. There is one inconuenience in rice, which is, that it causeth an ill aire by reason of the aboundance of water which it craueth whole fiue monethes space, but to recompence the same withall, it prooueth very profitable for foode and sustenance, for thereof is made pottage, and thereof also is bread made, either with rie or millet, or all three together: it is true that it is much giuen to make obstructions, and it restaineth fluxes as mightily: and this is the cause why such as haue great loosenes in their bodies do vse it oftentimes, especially if it bee parched and bild in cowes milke, wherein many little flints of the riuer haue beene quenched: if you boile it in milke adding thereto sugar and cinamome, it will prouoke vnto venerie. Many do thinke that it maketh fat, but seeing that (according to the Physitions) it is not digested in the stomacke but very hardly, it must needes nourish but a little, and then how can it possiblie make one fat? indeede it may be saide rather to puffe vp then to make fat.

Hempe.

Hempe must be sowen in fat and well dunged grounds, and watered with some little brooke, or else in flat and moist countries, where much labour and ploughing hath beene bestowed: for the fatter the ground is, the thicker will the barke or pilling be. It must bee sowen in March, and gathered when the seede is ripe, and afterwarde dried either in the sunne, winde or smoake, and then laide in water for to be watered, that so the pilling may the more easily depart from the stalks, afterward to be vsed in making of ropes and cloth, a labour & trauaile well beseeming & fit for women. Hempe seed is good to make hens lay many egges, and that in the depth of winter, and greatest coldnes of the same. Many doe burne the thickest rootes of the male hempe, and of the same so burnt and made into powder, doe make gunne-powder. The iuice or decoction of the greene herbe being strongly strained and powred in some place where there are earth-wormes, doth cause them to come foorth by and by: likewise being dropt into the eares, it causeth the wormes or other beasts which shall be gotten in thither to come out presently, and this wee haue learned of fishermen, which by this wile doe take wormes to serue them for their hookes. Hempe seed must neither bee eaten nor drunke, because it sendeth vp many fumes vnto the braine, which will cause the same to ake, and therefore women do greatlie transgresse the rules of physicke, which giue this bruised seede in drinke, to such as are troubled with the falling sicknes or head ach. This is a thing to be woondred at in hempe, that seeing there are two sortes of it, the male and female

The seede of hempe.
To make hens lay egs.

yet

yet the female beareth not the seed, but the male.

Line.

Line must not be sowen in any grounde, but where there riseth great profite, and this followeth and is caused by reason of the seede which impairerh all sorts of grounds verie much, and for that cause it must be sowen in a very fat grounde, and such a one also as is reasonablie moist. In any case the grounde where lineseede is sowen must bee curiously handled and clensed, and with manifold earings plowed and turned ouer so oft and so long, as that it become like dust: and furthermore the good huswife must be carefull when the line is growne, to free it from being intangled with the weede vsing to winde about it, and which of some is called linegowte, and that not once but oft, to the end that in gathering the seed, in beating it with beetles, heckling & spinning of it, such filth may not remaine among the towe. It must be gathered when it is ripe, and when the colour of it groweth yellow, and after laide vp in some drie place, that so it may be defended from the raine and dewe, which are vtter enimies vnto it: when it is dry, it must be thresht assoone as may be (to the end that the mise eate it not) with woodden mallets, to get out the seed out of it, & presently after that it shall be carried to the water about the change of the Moone, that it may lie therein three or foure daies in Iuly or August, till it become soft and tender, to the end that the pilling or barke thereof may the more easilie be separated from the stalkes for the making of cloth. When it is drawne out of the water it must be laid on a heape, all round, but two or three fadomes broade loading it aboue with boordes and stones, and after that spred in the sun, to the end it may drie the better. The finest line, which is without seede (notwithstanding it bee the least and lower of growth then the rest) is the best, being soft and fine after the manner as it were of silke: whereas that which is long and thicke, is also more rough and boysterous in spinning. You shall make very fine and white sowing threed of your fine flax in this sort; Let it bee watered in running water fiue or six daies in Iuly or August in the change of the moone: so soone as it is drawen out of the water, spread it in the sun, that it may drie, neuer casting it into any heaps, for that which is laid vpō heaps after the cōming of it out of the water, that it may take a heat & being pressed down to that end, doth become black and turneth into a darke and obscure colour. *To make white threede.*

Out of the seede of line you may presse an oile which will neuer freeze be it neuer so cold: it is vsed of Physitions, Painters, and many other sorts of workmen. It is singular good to softē hard things, for the paine of the hemorrhoides, chaps & tumours of the fundament called *Condylomata*, being washed in rose water, it cureth burnings: it is maruellous good in plurisies, if so be that it be new: for that which is old heateth and procureth vomite. *Oile of linseed.*

Nauets

Nauets and Turneps.

Nauets and turnepts delight in a light and fine mould, and not in a churliſh and ſad ground, & yet turneps grow better in moiſt grounds and places, but nauets on the tops and ſides of hils, in dry and pettie grounds, ſuch as thoſe are which are ſandy and grauelly. Howſoeuer it is, the grounde where they are ſowne, muſt haue beene oftentimes turned and caſt, harrowed and dunged: for by theſe meanes they will not onely grow well, but the ground after that they be gathered being thus prepared will bring foorth fairer corne. Turneps are ſowen twiſe in the yeere, in Februarie, and in Auguſt, in a well manured ground, and you may not ſuffer them, after that they haue gotten ſome little growth, to put vp any further out of the earth, for and if they ſhould ſtill grow more and more aboue the earth, their roote would become hard, and full of ſmall and little holes. See more of nauets and turneps in our ſecond booke.

The nineteenth Chapter.

Aduertiſements concerning corne and pulſe.

WISE and prudent husbandmen muſt not plow their groundes, cut their vines, or prune or haue any dealing about trees from the eighteenth day of Nouember vnto the ſeauen and twentith of December.

Sowe your corne as ſoone as you can, and ſtay, not to ſowe it in winter. Neither do you euer ſowe the corne, which grew in a fat ſoile, whether it bee wheate, or rie, or any other ſuch, in a leane and barren field: but rather ſowe that corne in a fatte and fertile ſoile, which grew in a leane and barren ground, and to bee briefe, ſowe in a well conditioned ground that which was growen in an ill conditioned ground. In ſowing your ſeede ſee that your hand anſweere your foote, and ſtanding vpon your feete, ſee that your right foote eſpecially bee mooued when your right hand doth mooue. In ſowing of wheate you muſt caſt it with a full hand, or by handfuls, but in ſowing barly, rie, oates, and many other kindes of graine, eſpecially ſuch as is ſhut vp in huskes, as millet, pannicke and rape ſeede: muſt be ſowen and caſt into the earth with onely three fingers.

Froſt. To preuent the froſt that it may not iniurie the corne that is ſowen, eſpecially ſuch as is ſowen in cold groundes, as thoſe which are moſt ſubiect vnto froſts, you muſt caſt and ſpread lime vpon the ſaid groundes before they bee ſowen: or elſe, which is better, mingle a ſixt or eight part of lime amongſt the corne which you meane to ſowe, and ſo ſowe them together.

To keepe your ſeede from being eaten of birds, myce or piſmyres,

mires, water it before you sow it with the iuice of housleeke: or according to *Virgils* aduice with water wherein niter hath been infused.

To cause peason, beans and other pulse to be tender and easily boiled, you must lay them a day before they be sowen, in water wherein there hath beene nitre dissolued: or else to mingle amongst them in sowing of them some dung and nitre, and if notwithstanding after all these meanes vsed, they cannot be yet well boiled, then put into the pot wherein they are boiling, a little mustard seed, and in a short time they will relent and seeth into pieces.

Beanes being sowen neere trees, cause their rootes to drie and wither: beanes will keepe long if you water them with sea water, notwithstanding that they will not boile any thing at all in salt or sea water.

Cich pease will become greater, if you infuse them in warme water before they be sowen: or if you steep them in their cods in water wherein nitre hath beene infused: if you would haue them early, sow them when you sow barly.

Lentils will grow very faire, if they be infused in their cods in warm water, with nitre: or if they be rubd ouer with dry ox-dung before they be sowen. *Lentils.*

You must not sow millet thicke, if so be you would haue it good: for examples sake a handfull is inough to sow halfe an arpent withall, for if you should sow any more you must but pul it vp when you come to the weeding of it. *Millet.*

Sow your lupines before all other kinds of corn, without staying or waiting for raine: before they flowre, you may put oxen in amongst them, and of all the other sorts of herbes they will eate, but they will not touch or come neere vnto the lupines, because that they are bitter: you may make them sweete, if you steep them three whole daies in sea and riuer water mingled together. *Lupines.*

Sow all maner of pulse in the increase of the moone, except peason, and gather them as soone as they be ripe; for otherwise their cods will open and the pease fall out.

Gather seedes and all manner of graine in the change of the moone, if you would haue them to keepe, and doe with them as we haue said before. If you haue neede to sell corne sell it in the increase of the moone & not at any other time, because at such time they grow and become bigger in the garner, then they are woont to be at other times.

The twentieth Chapter.

Of the Bake house.

IN vaine should the husbandman toile himselfe in tilling his ground so carefully according to the forme and manner which we haue before

fore described, and in like carefull sort to gather in, heape together & keepe his corne, if he hoped not for some fruit and profit of his paines & labours. But what that profit is which he receiueth of his corne, I refer my selfe vnto the sale, which he may yeerely make vnto forraine and strange marchants, as whereby there redoundeth vnto him an incredible summe of money. Witnesses in this point may be the infinite number of rich husbandmen in *France*, and namely in *Beauce*, *Brie*, and *Picardie* who liue in better estate and fuller of money, then many great Seigneurs and Gentlemen: and I refer my selfe likewise vnto the diuers sorts of bread which they make of their corne, for the feeding and sustaining of themselues and their families, as also their cakes, cheese-cakes, custardes, flawnes, tartes, fritters, and a thowsand other prettie knackes and daintie conceites, which may be made and wrought of the meale which their corne yeeldeth. And yet further I report me to the beere, (which standeth in steede of wine in the countries where the vine cannot beare fruit) made commonly with wheat and barlie: And lastly to the sale of bread which he may practise and vse euerie daie, without any whit disaduantaging himselfe: as we see in the husbandmen of *Goneſſe* neere to the Citie of *Paris*.

Now therefore seeing that matters stand in this sort, me thinkes it should be an vnseemely thing, not onely for the farmer, but also for the Lord of this our farme to vse to send to the towne or else whither to buy bread, custardes, cracknels, cakes, tartes, beere, and other such necessarie thinges, for the foode and sustenance of his house, either yet to borrow of their neighbours strangers, as bakers, paste cookes, and bruers for the vse, or to be beholden vnto them for any of these commodities, when they stand in neede of them: For it is my intent and purpose that this our countrie house should be an other *Pandora*, furnished and flowing with store of all manner of good thinges and commodities, in such sort, as that the neighbour townes might haue recourse and seeke vnto it in cases of their necessities and wants, but without taking or receiuing any thing at their hands but monie, as the price and sale of the wares shall amount and come vnto, which it sendeth and furnisheth them withall day by day. I meane therefore that our farmer should be a baker, panter, worker in pastrie and a brewer when neede shall be: and to be briefe, that he should not be ignorant of any thing which might helpe to keepe, sustaine and inrich his house.

Whereof bread is made.

And to the intent that I may enter into my purposed matter of the bakehouse, I doe not heere intend to trie or search out who was the first inuentour of bread making, or what meates were in vse amongst them of ancient time, before the making of bread was founde out, or whether

whether it was the man or womans labour to play the baker, these I leaue to such as make their whole profession that way, to discourse of, contenting my selfe to teach and instruct my farmer what graine or corne he may imploy and vse for the making of bread: for certaine there may be bread made of all sortes of corne, but not of all sortes of graine, for pulse (as we call them) that is to say, such graine, as is inclosed in coddes or huskes, and which are not cut downe with sieth or sickle, but gathered by plucking them from the earth by the roots, as pease, beanes, rice, lentils, great cich-pease, small cich-pease, lupines, fasels, fetches, fenugreeke and other such like, are not fit to make bread of, except in time of famine and when as other corne doth faile altogether, or else fall to be exceeding deere, according as we see in such times of hard distresse, bread of oats, barly, beanes, rice, millet, and pannicke, (for such haue I seene in *Perigord*) yea of bran, fishes dried in the sun, acornes, chesnuts, and ferne rootes (for such haue I seene in base *Bretaigne*) or which more is of bricks, tiles, and slates as is reported to haue been made by the inhabitants of *Sancerra*, who during the time that they were besieged, did make and eate bread made of slates.

Of corne and of such differences and sorts of the same, as will make good bread.

The excellentest, holesomest and best kind of graine for to make bread of is corne, of which as there are many differences and diuers sorts, according to the regions, countries, groundes and soiles where they grow, and according to the industry of the husbandman: so likewise there are diuers sorts of bread made differing aswel in sauour and tast as in maner of nourishing. Therfore that you may be able to make your choise wisely of all sortes of corne of euerie country that is fit to make bread of, you must see that it be thicke, full, grosse, massie, firm, of colour somewhat inclining to yellow, cleane, yeelding great store of cleane and white meale, which being steept and boild in water doth quickly swell: which being newly threshed, commeth presently from the sheafe: for that which is old threshed although it be drier then that which is new threshed, as also more light, apt and ready for to make meale, and to keepe in meale, notwithstanding the bread is not of so pleasant a taste, seeing it hath lost a great part of his wel relishing iuice, and hath gotten as it were another nature by the alteration of the aire: for certainly euen so deale the corne merchants, who well bethinking themselues at what time to sell their corne, doe not thresh it before the very same moneth, wherein they meane to sell it: and as on the other side the baker will not buie (if possibly he may choose) any other corn to make good bread of, then that which being new threshed, commeth fresh from the sheafe. *To make choise of your corne.*

The excellentest corne in all France, and which they vse most in *Good corne.*

Paris,

Paris, are those sortes which come out of *Beauce*, *France*, *Brie*, *Picardie*, *Champaigne*, and *Bossigny* in *Burgundie*: howsoeuer also these in *Berree*, *Poitou*, *Xantonges*, *Angoulmois*, *Limoges*, *Normandie*, *Limagne*, *Languedoc*, and *Auuergne*, be not altogether to be reiected. The corne of *Beauce* maketh a fairer shew, then the corne of any other countrie, because it is growing in a fertile and fat soile, and such a one as is not drie, and it hath in it a band which sheweth great when it is in bread, although there be lesse quantitie of paste. The corne of *France*, hath a shorter and lesse graine, then that of *Beauce*, because it groweth in a ground neither too fat, nor too leane, but indifferent, so that the bread that is made thereof, is not of so great shew as that of the corne of *Beauce*, but yet to make some manner of recompence more white and such as eateth better then that of *Beauce*. The corne of *Brie* is of a lesse graine then that of *France* and *Beauce*, as also a lose of this corne is of lesse quantitie then that of *Beauce* corne: and of lesse whitenes and pleasure in eating, then that which is made of the corne of *France*, because that *Brie* is a countrie of sweete cherries: and yet notwithstanding it is found, that the countrie properly and truly called *Brie* doth surpasse and goe beyond the two other in massinesse of corne: and the cause making it so to be, is the shortnes and thicknes of the skin thereof, which is euidently more apparant in it then in the rest, which make it to weigh the more. The corne of *Picardie* is of a lesse graine then any of the other three aforesaide, and so the bread of this corne is not so good, great, white, or profitable: because that this corne is more hard, stiffe, stubborne, and vneasie to grinde then the others, and therfore such as out of which the flower cannot be well drawne, which causeth men commonly to call the corne of *Picardie* more vile and filthie then the rest, seeing when it is ground, the bran thereof detaineth and keepeth backe of the flower within it. *Champaigne* notwithstanding that it flow and abound with corne, and make a very faire and great shew, yet it is inferiour vnto the other aforesaid countries: because the corne thereof yeeldeth lesse bread then the others, because naturally it is giuen to be choking, and to run vpon wreathes betwixt the milstones, and more tedious to grinde then others: againe it is long, thinne, and clouen in the middest, which maketh that it carieth so much waste bulke.

Corne of Beauce.

Corne of France

To grinde corne.

The husbandman hauing made good choise of his corne, shall send it to the mill whether it goe with water or with wind, according as the country shall be most fit and conuenient for: or and if he haue choise and may send it to either, then he shall rather choose to send it to a water mill, carried about with a very swift streame for the more forcible turning about of the stone, and which hath his stone of a verie hard greete and all of one peece if it be possible, such as are in *Brie*

and

and *Champagne*, especially at *Ferte* vnder *Ioarre*: for the millstones that are tender and soft, do easily breake & quickly grow out of frame, and withall do continually leaue some gruell in turning about, which being mixt with the meale, taketh away all the pleasantnes and good sauour of the bread, and becommeth oftentimes troublesome vnto the teeth. Many do counsell and aduise to beat the corne in a mortar before it be sent to the mill to be ground, and in beating of it to sprinkle it ouer with water and after to drie it in the sun, and then in the end to send it to the mill. Some will not send it to the mill except it be verie drie, and when as it is not drie, they set it in the sunne to drie, as holding this opinion that the drier it is the more meale it yeldeth. Others besprinkle it with salt water, hoping by such watering of it that the meale will become more white, and that they shal haue greater quantitie of bran. Of old time, as may be gathered out of *Aristotles* problemes, barley was wont to be parched before it was grouñd. In France none of these waies of preparing their corne to the mill are vsed, but as the corne is, so they send it to the mill: it is true that the miller is to lay his stones in such sort, as that according to the owners will he may make a greater or a smaller and finer meale, as also according as the corne it selfe shall be more grosse, hard, small or soft.

Of meale, mill dust, flower of meale, bran, fine meale, wheat, starch, and mundified barley.

THE corne being ground is turned into meale, in such sort as that meale is no other thing but that which commeth of the corne when it is ground: and so the meale falleth out to be such as the corne was, that is to say, very white, if so be that the corne were pure and cleane, thicke and short, such as the corne of *France* (properly so called) is, blacke and full of bran: if the corne were starued, small, wrinckled, full of filth and dirt, long and flat, such is the meale of rie. But the husbandman before the grinding of his corne and turning of it into meale must thinke with himselfe whether hee will keepe it long or no: such as hee will not keepe, there is no neede why hee should care of what corne he causeth it to be grounde, as whether it bee olde or newe threshed, neither yet how and in what manner: but such as he doth entend to keepe for some time, as in a store-house, for to answere the times of necessitie, he must chuse the driest corne that he can meet withall, because that if it be not very drie, it might very quickly take heate in the meale: and so it is meete that it should be old threshed & not new & comming from the sheafe, (although the bread that is made of corn old threshed: be not so good as that which is made of new threshed corne, and that which commeth fresh from the sheafe) for the meale that commeth of corne old thre- *To keepe meale.*

ſhed and reſerued a long time in the garner, keepeth better then that which commeth of new thraſhed corne, becauſe that the corne being driuen and laide naked from his firſt and vtmoſt huske and coate, taketh the aire, as alſo his vndermoſt couering wherewith it is couered, and ſo groweth drier and harder, not onely in his coate, but alſo in the meale and marrow incloſed therein: whereupon it commeth to paſſe that this meale being left naked and voide of any coate by the grinding of the mill, becommeth more apt to keepe, in being the more drie: on the contrary, the meale of new threſhed corne, is not of ſo good continuance, but ſpoileth ſooner: becauſe that the corne newe thraſhed, retaining yet his natiue moiſture, maketh the meale the more moiſt and heauie, and that it can not be ſo drie, whereupon it falleth out to be more inclinable and readie to corrupt: for euen as drines doth preuent and hinder putrefaction, ſo moiſture doth haſten and helpe forward the ſame: and that it is ſo, wee ſee by experience, that the painfull husbandmen for the good keeping of their corne, do leaue it in the ſheafe mowed vp in the barne there to winter and ſweate, cauſing it after ſuch ſweate to bee threſhed, that ſo they may ſhift it out of his place into another that is more dry, and laying vp higher in a more open aire; where being laide and gathered together in heapes after a long and not high raiſed manner, he diligently beſtirreth himſelfe to cauſe it to be remooued from place to place, that ſo it may take the aire by little and little, but ſpecially to aire that which lieth vnderneath, by laying it about, wherefore it is not to be doubted but that the meale which is made of corne that hath beene thus ordered in the garner, is of much better continuance then that which is of corne comming newly out of the ſheafe: beſides the husbandman muſt giue in charge (if ſo bee he woulde haue his meale to keepe long) to the miller to grinde his corne ſomewhat groſſe: for and if it be ground fine, it is not poſſible for him to keepe it ſo long in good ſtate and condition: notwithſtanding for the well keeping of all ſorts of meale, whether it be of corne new or old thraſhed, you muſt make choiſe of the higheſt roome of all your dwelling place, whether it be tower, towne, or towne-houſe, and being placed there as in a ſtore houſe, it ſhall be let reſt full fifteene daies, to relieue and eaſe it ſelfe of the trauell which it hath had in the grinding: after which time of reſt for the better and longer keeping of it, it will be needefull to change it oft from one place to another, and by this meanes it will be kept a whole halfe yeere, and being often remooued and changed from one place to another, it will be increaſed a fifth or ſixth part at the leaſt, of which, notwithſtanding there cannot bee made ſo good bread, as of the meale that is newly grounde. And thus much for the farmers duty about baking, which conſiſteth in chooſing the corne, cauſing it to be ground, and laying vp of the meale in ſome garner, either

ther to be kept, or to be presently vsed about the making of bread. The ordering of the meale, and making of the bread belongeth vnto the huswife, according to the custom of the ancient Romans, amongst whom, the women of speciall note and account did worke and knead the meale, and made bread with their own hands, as *Plutarch* reporteth in his Problemes. The huswife then being possessed of so much meale in the garner, shal go about to do her indeuour to make bread: but before she begin to make it, she shall separate the finer part thereof from the grosser, with some temze, searce, or bolter, to the end that of these seuerall sorts of meale, she may make seuerall sorts of bread: the finest part of the meale is called the flower of meale, & of the Latins *Pollen*, whereof the pasterers or cookes for pastry, doe make wafers, and such like daintie knacks: the grossest part is the bran, called of the Latins *Furfur*, which commeth of the coate or huske cleauing next vnto the narrow and kernell of the corne. Betwixt the flower of the meale and the branne, there are yet other parts of the meale, more or lesse fine, or more or lesse grosse, according to the widenes or narrownes of the temze or bolter through which they passe, and according to the difference and diuersitie of these parts, there are made differing and diuers sorts of bread that is to say, more or lesse white, according to the taking foorth of two, three, or fowre parts of the bran, by the helpe and meanes of the bolter: besides these parts and seuerall sorts, there is yet another sort of meale which is called mill dust, and this riseth vp from the corne, as it is vpon the mill, grinding vnder the mill-stone, but hereof there is no vse for bread, the millers vse to sell it onely for the vse of booke-binders and goldsmithes, to make their paste withall: there is yet another kinde of meale, which the Italians call *Semole*, which is fine meale, or course flower, called of the Latins *Simila*, or *Similago*, whereof we haue spoken before: We haue it not in this countrie, it is brought vnto vs from Italy and Naples, neither do men vse to make bread with this, but either thicken their meat broths, or else make pap meat. It is as fine as the flower of meale, but not so white, notwithstanding hauing a colour halfe like the straw colour. It is of a very good iuice and nourishment. There is yet further another sort of very white meale that is very fine, which is commonly called in French *Amydon*, and of the Greekes and Latins *Amylon*, as though it were made without milstones. It hath heretofore beene made diuers waies, but in this countrie they vse to make it in this sort: They choose the fairest and purest wheate that may be got, and cause it to be ground very finely: which done, they cast the ground meale into a fat or vessell which the other fill vp with water, scumming off the bran that swimmeth aloft, and after passing all the water through a cloth or strainer, and then they put newe water into the vessell, which they likewise straine in such manner as they did the former,

Mill dust.

former, leauing the white meale in the bottome whither it is setled, & this they dry in the heat of the sun about the dog daies, and when it is dried it becommeth hard, and is afterward broken into gobbets, and so made into fine meale.

You may make meale likewise of other corne then of wheate, as of barley, rie, meslin, secourgeon, and many other sortes of graine, whereof we haue said before, that bread is woont to bee made in the time of dearth and famine, or else in poore countries that haue want of other, or at least of better corne. Barley meale is very full of bran, and hence it commeth that the bread made thereof doth losen the belly: notwithstanding, there was in old time made of barly a sort of meale which was called *Polenta*, that is to say, of barly newlie dried, then fried, and afterwarde ground, and this was vsed to make pappe meate of, or else to put in meate brothes to thicken them. Some doe the like with mundified barly.

Barly meale.

Polenta.

The meale of rie is likewise full of bran, but that of oates is yet more full, notwithstanding, that oatemeale which is made of oates husked, be a welcome dish to the tables of great Lords: the meale of rice is whiter then any of the rest; as for the meale of pulse, it is oftner made by being braied in the mortar, then by grinding, howsoeuer it may more cõmodiously & a great deale better be made with the mill.

The meale of rye and oates. Oatemeale. Ricemeale.

Leuen.

Leuen, called in Latine *Fermentum*, because it puffeth vp and swelleth in continuance of time, is a lumpe of paste left of the last masse of dough, couered & hidden in the meale which is kneaded to take away the clammines and cleauing propertie which is in the meale that is purposed to bee made into bread: this leauen becommeth sowre by continuance of time, and thereby maketh the breade more delightsome, and of a more pleasant taste: againe, we see that bread by how much the more leuen it hath, by so much the more holesome and well relishing it is, ouer and aboue that which hath lesse store of leuen in it. It is indifferently hot, and a little cold: hot by reason of the putrefaction which it is cast into, and because of the nature of the meale. This leauen is made diuers sorts of waies, according to the manners and fashions of countries: we make it of wheat paste, to make wheate bread; and of rie paste to make rie bread: some put vnto it salt, some vineger, and many veriuice made of crabs. The workers in pastrie do vse the rising of beere to make their wigs withall, as we shall haue further occasion to speake of in laying open the way to make beere. People of old & auncient times did make it diuers waies as *Pliny* reporteth. The Flemings do mightily boile their wheate, and take off the scum that riseth thereof in boiling, which they let grow thicke, and vse the same insteede of leuen, and that is the cause why their bread is a gret deale lighter then ours. Howsoeuer it is, the leuen

uen which men bakers and women bakers do vſe to make their bread withall, may be kept fifteene daies and not any more, becauſe after ſuch time it corrupteth and decaieth, but to be ſure it is not good to keepe it ſo long: for to keepe it you muſt worke it vp into a round paſte, couer and hide it ouer in meale, and beſides in winter it muſt be couered ouer with good ſtore of clothes in the kneading trough. When the good wife of the houſe is purpoſed to bake her paſte, ſhe muſt two or three daies before, or which is better, ouer night, kneade in her ſaid leuens, with hot water, or elſe with colde, according to the time and diuerſitie of the corne, whereof ſhe meaneth to make her bread, as we will ſpeake further of by and by. The workers in paſte meates do vſe but very little leuen in their cruſts, or none at all, either becauſe it woulde make ſo ſmall a quantity of paſte as they vſe to make their cruſts of too ſowre, or elſe becauſe the leuen would draw vnto it all the butter, or ſuch other fat as they ſhould mingle amongſt their paſte, for as much as leuen hath the power to draw moiſture vnto it, as we may eaſily prooue by apoſtemes, which when we woulde haue to ripen and ſwell vp higher, we vſe to applie a plaiſter or cataplaſme of leuen to them. Furthermore, if it ſhoulde happen that the baker, or good wife of the houſe ſhould finde her leuen too ſowre, and that ſhe cannot come by any other, the remedy muſt be to knead her leuen with hotter water than ſhe would and if it were in his proper nature and kinde, that ſo by the heate of the water the leuen may recouer ſome ſtrength, and ſomewhat renew his naturall force, hauing loſt his naturall heate: whereas on the contrarie, when the leuen is in his kinde and well conditioned, there is not any thing but colde water to be vſed about it.

The making of bread according to the diuerſitie of corne whereof it is made.

Bread of corne growing in Beauce.

The huſwife muſt bee ruled and aduiſed in the making of her bread, by the nature and condition of the meale whereof ſhe maketh it, wherefore if ſhe dwell in *Beauce*, or dwelling out of *Beauce*, doe make her bread of the corne growing in *Beauce* (the meale of which corne for certaintie, holdeth the chiefe and principall place of account amongſt all the ſorts of meale of *France*) ſhe ſhall be carefull in any caſe, to make her leuens at certaine and well appointed houres: In Sommer ſhe ſhall refreſh her leuen with colde water at noone day, and renew it againe at fiue a clocke, and laſtly at nine, without failing of keeping theſe howres in very preciſe manner: This water thus vſed in ſommer muſt be drawen freſh out of the well, or from the fountaine and riuer, becauſe that well water as it is more heauy than the other, ſo it maketh the bread more heauy: and on the contrarie, ſpring water or water from the riuer as it is the lighter, ſo it maketh lighter bread. In winter ſhe muſt renew her leuen with freſh

water warmed or made hot: and with this water both winter and ſommer, ſhe ſhall wet her armes, and knead her paſt throughly, turning it ouer and ouer, hither and thither, on euerie ſide, for a long ſpace and many times, that ſo all the parts thereof may ſhew that ſhe hath beene there, and that all the clammines and cleauing qualitie of the ſame may be throughly broken and dried vp, that ſo the bread may be the more ſhort & finer in chawing, and not eating like paſte in the teeth, mouth and ſtomacke. After ſuch handling of it ſhe ſhall take the paines to turne her paſte oftentimes, that ſo it become not leuen, for otherwiſe it would not eat ſo well. It is true that when the leuen is faultie, the meale of the corne of *Beauce* hath ſuch a band and liſt as that ſhe might eaſily couer and hide ſuch fault, prouided that the baker whether man or woman, at the kneading thereof would but helpe it a little with ſome freſh water.

Bread made of the corne of France.

If the farmers wife doe dwell in Fraunce, or make bread of the corne growing ſometime in Fraunce, ſhe ſhall not vſe ſo much leuen thereunto as ſhe did vnto the meale made of the corne growne in *Beauce*, both bicauſe the corne commeth ſhort in yeelding like quantitie of paſte, for like quantitie of corne, as alſo bicauſe the meale hath not ſo good a band, neither yet is it altogither ſo clammie: and therefore you muſt vſe a meane and reaſonable meaſure in your leuen, and withall let your water be leſſe hot, then in the kneading of *Beauce* meale: for and if you knead it with water that is more hot then needeth, the paſte will ſwell vp the more a great deale, and afterward will dry out of all reaſon.

Bread made of the corne of Brye.

To make bread of the corne that was growne in *Brie*, you muſt vſe a quite other manner of order, bicauſe that countrie corne is much more churliſh then that of *France* or *Beauce*: the firſt flower that commeth out of huske or skin of the ſaide corne, is better bound then the others, bicauſe the corne is ſhorter, and ſo hangeth in the bolter as doth the oatemeale, contrarie to the nature of other corne, in as much as the ſaid oatemeale is ſweeter then the other ſorts of corne, which cauſeth that the bolter letteth ſome ſmall quantitie of meale ſomewhat roundly ground to croſſe it ouerthwartly, and that may be called the ſecond flower: and this was not, neither ſhould it be ſhorter then the corne of *Picardie*.

Bread of Picardie corne.

Picardie corne muſt be much corrected, as being hard to be well ordred, either in paſte or in any other ſuch manner of vſages, as alſo for that it craueth a very hot ouen, and when it is in it, it maketh ſuch a couering to the bread, as though there were no manner of leuen in it at all. It is harde to bake, and hard to take colour, which may ſeeme ſomewhat ſtrange in it; for ſeeing that it is ſo ſowre and drie, it ſhould argue that the bread ſhould the ſooner be baked in the ouen: but the hardnes and heauines of the meale is the cauſe that it is ſo harde to

bake

bake: as alſo there may bee ioyned thereto for another reaſon the cruſt that groweth vpon the ſame preſently, for it is a meanes to hinder the heate of the ouen that it cannot enter into the inwarde parts ſo eaſily as it ſhould: and this is the cauſe that maketh the bread to be alwaies as it were fat.

Bread made of the corne which was growne in Campaigne.

The meale of the corne of *Campagne*, craueth a newer made leauen when it is to be made into bread, bicauſe it hath a ſmatch of the earth, which would make it to be become woorſe in paſte, if it ſhoulde not haue added vnto it ſuch leauen as were excellent good, as alſo for that the corne comming out of the ſheafe, doth ſmell of the ground whereon it grew, and this cannot be amended without great diligence vſed, and care had in the making of the bread.

Bread made of meſlin.

Meſlin thriueth not ſo well, as not yeelding ſo much when it is made in bread: it is by nature fat, as alſo the meale thereof being bolted: it is no eaſie thing to pull out ones hands, when they are in kneading of it: the good huſwife that hath not beene acquainted to worke in this kinde of corne, doth finde her ſelfe much incombred therewith, and that in part, bicauſe the better part of the meale vſeth to ſtay behinde with the bran: and therefore for the profite of the houſe it were better to bolt the meale of rie and meſlin, then to ſift it: becauſe the bolter with the working of the armes, doth cauſe the bran to let go the meale that is within it, which is more then either the pocket or ſearce will do, bicauſe they make no mooving or ſtirring of the meale, but from one place to anorher.

The paſte therefore being well kneaded, ſhifted, and prepared, as neede requireth, it muſt be parted into round peeces, of a reaſonable greatnes and thicknes to be ſet in the ouen made reaſonablie hot, euen in ſuch ſort as that the bread may (according to the greatnes, thicknes, and qualitie of the paſte) be ſufficiently baked: for a weightie and thicke loafe of paſte made of the corn of *Picardie*, would haue a longer and greater baking then a ſmall loafe, and that made of the corne of *Beauce* or *Fraunce*. If the ouen be too hot, the cruſt will be ſcorched, and within it will remaine rawe and vnbaked, the heate not being able to enter and pierce to the inner parts, the cruſt that is ſo hard dried vpon it being a let thereunto.

In the meane time it muſt not be forgotten that when any man is determined to make ſalt bread, or to mixe aniſe-ſeed therewith, or any other ſuch mixture, that he muſt mingle and put the ſame therto, whether it be ſalt or aniſe-ſeed, or any other ſuch thing, at ſuch time as the paſte is in kneading.

There are likewiſe diuers ſorts of bread made of one and the ſame meale, according as the bolter, pocket, temze, or ſearce ſhall be, through which it paſſeth. Of the meale wholy togither, and hauing nothing ſifted out, is made houſholde bread. And when the greateſt

of

of the bran is taken away, then there is vſually made thereof citizens bread. Againe, when as the bran is cleane taken away, they vſe to make thereof ſmall white loaues. And when as the groſſeſt part of the white flower is taken away, and nothing left but the very fine, they vſe to make chapter bread, wafers, tarts, cakes, and other workes of paſtry: Some alſo do make bread as it were of pure bran, and therein likewiſe ſometimes to be founde ſtrawes and chaffe, and that for to feede dogs withall.

The fitteſt place for the baking of bread is the ouen, becauſe it admitteth the heate of the fire equally and indifferently on all ſides: vpon the hearth or gridiron, the one part of the loafe baketh, and the other remaineth rawe: and vnder the aſhes it is not ſo well baked.

The fire that is for to heate the ouen, muſt be fagot wood, or billet, or ſhiuers of thicke wood that hath no ſtinking or vnſauory ſmell: or for want of woode, ſtrawe, or ſtubble, as is vſed in *Beauce*, or of thick reedes, according as the countrie will moſt conueniently affoord.

The bread muſt be baken in the ouen, in a good ſort and meane, and with a reaſonable heate: for ouergreat a heate would ſcorche the cruſt that is aboue, and ſo debarre it ſelfe of inward entrance, to the cauſing of the ſaid inward part to remaine raw and paſtelike; a leſſer heate then is meete and conuenient would let it remaine all raw: after it is baken inough it ſhall be drawne out of the ouen, and laid to reſt and abide in a place that is neither ſtinking nor vnſauorie, nor yet infected with any euill aire: for the hote bread doth eaſily drawe and ſucke in any venemous or corrupt quality of the aire: in moiſt places bread doth ſoone become hoarie and fuſtie: and in too drie a place it becommeth mouldy and ranke: The good husband that is right carefull of his profit to the end that his bread may laſt the longer, and that they may eate the leſſe of it doth ſet in ſome cellar or place vnder the ground, or in ſome other moiſt place: and his rie bread in ſome place neere vnto the fire hearth.

Bread made of other ſorts of corne as alſo of certaine pulſe.

Barley bread. Barley bread muſt be made of the beſt barly that may be found or gotten, and not of the meale whole and intire, as it commeth from the mill, but of that part of it which hath beene temzed and cleanſed from his groſſe bran: It is true that the bread will be very drie, verie apt to crumble, and of a ſowre taſte: ſo that it would be better to mingle amongſt this meale, ſome meale of pure wheate, or meſlin. The manner of ſeaſoning it with leauen, as alſo of kneading and baking of it, is no other, then is vſed in wheate. After the ſame manner is breade made of Secourgion. But neither the one nor the other is fit for the eating either of the Lord of the farme or of his farmer, but rather for the ſeruants and that eſpeciallie in the time of dearth, for their better

better contentation, although there be no great ſtore of nouriſhment to be looked for from the ſame: After this ſort alſo they make bread of oates, which is ſeldome or not at all eaten, except it be in the time of extreame famine, for indeede it eateth very vnpleaſantly.

Bread may be made of millet as alſo of panicke, but ſuch as is very drie and brittle, and yet the *Gaſcoins* vſe it commonly, and eſpecially the *Biarnoyes*, who for this cauſe are called millet mangers of their neighbors dwelling thereabout. The *Biarnoyes* doe make haſtie puddings after this manner: They take three or fower pounds of the meale of millet for the morning & as much for the euening, they ſet it vpon the fire in a *Kettle* wherinto there is powred fiue or ſix pintes of water: thus they let them boile together, vntill ſuch time as that it ſwell vp to the top of the kettle, and then taking it from off the fire, they ſtir it well about with a round ſticke, ſo long as vntill the paſte be verie throughly broken and made all one, then afterward taking it out of the kettle, they diuide it with a threed into many peeces and eate it in that ſort with cheeſe, or with thin ſalted milke. *Bread of millet.*

Bread is likewiſe made of rie, but ſuch as eateth very clammie, whereof we haue ſpoken in the diſcourſe of rie: for the taking awaie of the clammines thereof it will be good to mingle barlie flower with it, or rather wheate flower, or elſe to take the flower of the rie meale: it will be of a waxe colour, if yet whiles it is hote, you lay vpon it ſome heauie thing. *Bread made of rie.*

It is vſed likewiſe, to make bread of ryce, beanes, ſpelt corne and many other ſorts of corne and pulſe, and that after the ſame ſort that wheate corne bread is made.

In like manner the induſtrie and indeuour of the baker may be the cauſe of the making of many ſorts of bread, as that which is called the fineſt bread, or Court bread which is the lighteſt of all the reſt, and which is very exactly kneaded, full of leauen and of a well raiſed paſte. Bisket bread which is of three ſorts, one that is made of rie, another that is made of maſlin, or barley or oates, or of all the foreſaid mixt together, fit for Saylers to liue withall, which vndertake long voyages by Sea, or for ſuch as are beſieged within ſome fort or holde, becauſe it will keepe a long time: This kinde of bread hath not much leauen in it: the ſecond kind of bisket is made of pure wheate without any mixture, fit for the poore that are infected with the pockes, to make their diet bread vpon. The third ſort is made of the flower of meale, and it is vſuall to put to the paſte thereof ſugar, cinnamom, pepper or ginger, and ſometimes anniſe ſeedes, and it ſerueth to eate in the time of abſtinence, as Lent and ſuch other. At *Reyns* they vſe to make ſpiced bread with hony and a little quantitie of pepper or cinnamom. The bakers of the Court make their bread with milke. *Bisket.* *Spiced bread.* *Bread of milke.*

The

The one and twentieth Chapter.

Of the Pantrie.

IT is most certaine that bread is the chiefest thing whereby man is fed and nourished: and that it is so, we see that other victuals, how pleasant soeuer they be vnto the taste, how well soeuer prepared and set out with good sawces, do (for the most part of them) cause very oft a distaste and loathing of themselues: but onely bread holdeth out without dislike growing thereupon whether it be in sicknes or in health, it is the thing which appetite doth last of all refuse, and first like of and receiue againe in the time of sicknes: in health it is the beginnning and ending of our meate, very pleasant and delightsome with all kinde of meates. In like manner of a certaintie bread is by a maruellous benefite of nature, indewed with all sorts of tastes or relishes, which particularly are the prouocations and allurements causing vs to affect and eate this or that or any kinde of meate whatsoeuer. Some whereof do please vs by reason of their sweetenes: other some by reason of their sowrenes, some by reason of their saltnes, and othersome by reason of their sharpnes, and some by reason of their pleasant smell: and all these well pleasing relishes, making sauorie vnto vs all other sortes of meate, doth bread containe and comprehend in it selfe. Againe other victuals haue they neuer so good a taste, cannot be pleasant or profitable for the health in eating, if bread be not eaten with them, in as much as bread by his good nature doth correct the faults that are in other meats, and maketh them stronger and of more power in their properties and qualities: and hereupon grew the common prouerbe, which is, that all meat is good and profitable, when it is accompanied with bread. Againe we finde by daily obseruation, that such as eate their meate, whether it be flesh or any such sort of victuals without bread, haue alwaies a stinking breath: so that I cannot but greatly maruell who was the author of the common prouerbe: viz. That all repletion of whatsoeuer meate was euill, but especially that of bread: if it be not, bicause that bread (by reason of much solide and firme nourishment which it bringeth vnto the body, if it happen to be eaten in excessiue quantitie) doth fill the veines with abundant store of blood, but such as is not apt to flow and stir, and such as is not apt and easie to be euaporated and discussed, being giuen to indure and continue like solide things in a constant and staied course: of the which blood all the bodie being nourished, is made more corpulent, full and massie, and so by reason of this fulnes the lesse perspirable, bicause the pores and passages of the skin, by the which the whole bodie should haue meanes for the breathing out of his superfluous vapours, are stopt; and thereby the body

Omnis repletio mala, panis autem pessima.

body made subiect vnto many diseases, and sodaine death: such was the issue ordinarily befalling professed wrastlers, and that as we may gather by reading, procured and wrought especiallie in those men, by vsing of much bread and swines flesh. And I will further confesse (as *Galen* teacheth vs) that of all the errors, and inconueniences happning to the health, through the bad digestion and ill concoction of the stomacke, those are the most grieuous, which grow of the ill digesting of bread, rather then where flesh or such meate are badly digested, because that bread doth more trouble nature and is a longer time in digesting. But all this notwithstanding there is no cause, why bread shoul not still bee preferred before all other sortes of victuals, seeing these discommodities arise not of the meane and reasonable vse, but of the excessiue vse rather of the same, which is the high way to mar and make hurtfull not bread onely but whatsoeuer other good and excellent thinges: so grealy euery where and in all good thinges, is the merrie meane commended. Againe whatsoeuer hath beene hitherto said of bread, hath beene not to charge it with begetting the said vices and diseases, by any euill iuice that is in it, but indeede by the superfluousnes of humours, which may rather bee accounted for a vertue and commendation vnto it, then any dispraise; but the further discourse of this matter I leaue for an other place. Seeing then the life of men consisteth more in the vse of bread then of all other things, who so is carefull of his health and life, must make choise of his bread, according as his substance, calling and naturall disposition, shall direct and guide him.

The bread that is made of wheate meale whole and intire, as from which there is nothing taken by temze, is fit and meete for hindes and other workefolkes, as deluers, porters, and such other persons as are in continuall trauaile, because they haue neede of such foode, as consisteth of a grosse, thicke and clammie iuice, and in like manner such bread fitteth them best which hath no leauen in it, is not much baked, but remaineth somewhat dowghie and clammie, and which besides is made of the meale of *Secourgeon*, of rie mingled with wheat, of chesnuts, rice, beanes, and such other grosse sorts of pulse. *Bread made of the whole flower.*

The bread that is made of the flower of the meale, being the purest and finest part thereof, is good for idle & vnlaboured persons: such as are students, Monkes, Chanons and other fine and dainty persons, which stand in need to be fed with foode of light and easie digestion. Such is the white bread which is sold of the bakers, and chapter bread: as also that which is well leuened, knodden, somewhat salt, somewhat hollow, and well risen, like vnto court bread. *Bread of the flower of meale.*

The bread that is made onely of rie flower, is very blacke, heauy, clammy, slimie and melancholicke, and for that cause hard to digest, as also fit to be eaten of the countrie people and poore inhabitants of

the

the land, but not for men of note and birth liuing at their eaſe: It is true that Phyſitions doe chieflie commend it in ſommer in the beginning of meat, for to looſen the bellie, as we ſee it practiſed in the courts of great ſtates: but ſuch bread muſt not be made of the intire meale of rye, but ſuch as is well ſifted: and it muſt beare the colour of wax, and bee new baked, for that which is old groweth ſowre, and looſeth his pleaſant ſmell. The women of *Lyonnois* to the ende they may be faire and haue a freſh colour, and ſolide and ſubſtantiall bodies, do vſe no other bread, but ſuch as is made of rye: ſuch as are much altered and changed, in ſteede of ptiſanes, cidre, beere, or anie other ſuch drinke, may drinke of breaded water, that is to ſay, water wherein rye bread hath beene well beaten and laboured.

Bread made of barlie meale onelie is verie drie, eaſie to crumble awaie, and of very ſmall nouriſhment, and therefore fitter to looſen the bellie then to feede or nouriſh, by vertue and force of a detergent facultie, wherewith barlie is greatly furniſhed: And this is the cauſe why at Rome this kinde of bread is made no accompt of, as for to bee vſed of men leauing it as a foode for cattell, or elſe in reproche, for faint harted and daſtardlie ſouldiers, for it was vtterlie forbidden for euer being ſet before ſuch as were valiant and couragious in fight, becauſe of the ſmall quantitie of nutritiue parts or nouriſhment that is in it; It is true that manie doe imagin that the vſe of barlie bread doth make them leſſe ſubiect vnto the goute: contrarie to that which Ariſtotle ſaith in his problemes, that bakers and ſuch as vſe baking are weakened thereby, but yet more then the reſt, ſuch as vſe to handel and worke much in barlie ſtuffe. The thing I leaue to be tried by the ſequele.

Oaten bread is not commended, both becauſe the imploying of oats that waie were to rob cattell of their due foode and prouander (a great argument of famine) as alſo becauſe ſuch bread is of a verie vnpleaſant taſte: It is better to vſe oatmeale made of oates freed from their huske: as we haue ſaid before in the treatiſe of pottage vſed either in fleſh time, or in the time of Lent.

Bread made of millet and panicke is very common in *Bearne* and *Gaſcoigne*, not onely amongſt the vulgar ſort, but alſo in the houſes of great Lordes, but theſe doe vſe it rather for daintines ſake or for want of a good ſtomack then otherwiſe: it is very dry, light & eaſily crumbling, and ſo fit for to dry vp a ſtomacke and body that is very moiſt. It is pleaſant to the taſt when it is new and wel baked, eſpecially when it is eaten comming hot out of the ouen, for then it taſteth and eateth with a marueilous pleaſant ſweetnes: Likewiſe in countries where ſuch bread is made account of, the bakers carry it preſently after it is drawen into the towne, and crie hot millet bread hot; but after it is become hard, it looſeth all his grace.

Bread made of pure and cleane meslin, is very good to bee eaten according to the mediocritie of the substance thereof, in such sort as that many compare it with the bread made of *Similago*, which was in olde times the best and most excellent wheate that was.

There is no regarde to bee made of the bread made of the bran which commeth of the meale, that hath his flower taken from him, & is commonly called meale bran: it is better to leaue it for the hounds or shepherds dog, or such as serue for the keeping and watch of the house. *Bread of bran.*

Soft bread (otherwise called of the French *Pain mollet*, or *Pain de bouche*) is to bee made for none but great Lords: bisket bread made of the flower of wheate meale, is for such as take the diet: bisket made of rie and such other graine of the inferiour sort, is for mariners and such as are besieged in towns. The spiced bread is for such as are sweet toothed and licourishly giuen. *Soft bread.* *Bisket.*

The most excellent and best bread of all other (if you haue neede at any time to make choise) is that which is made of good and pure wheate, that is new, not old, not corrupted, or any way spoiled, moist, or long kept, hauing been well ground, well sifted, well wrought into paste with good store of leuen, and sufficient quantitie of riuer or spring water rather then that which is taken out of wels, but neuer out of fennes, pools, or fishponds, nor yet out of troubled, dirty, muddie, vncleane or salt water: being well raised and throughly kneaded and turned on euery side, and let rest certaine howres, being well couered and somewhat salted, of a reasonable masse of paste, not to exceeding great, that so it may take the heat of the fire equally on euery side as well aboue as below: which is baked in the ouen heated with a reasonable fire, and such a one as did burne cleere, feeding vpon wood rather then vpon straw, stubble, reede, rotten or medicinable wood; which is indifferently baked, so as that by ouer much and long baking the crust is not scorched, nor the sweete iuice of paste, which is as it were the life and substance of the meale, is not spent and consumed: or so as that by too slight and slender baking, the inner part of the bread remaine raw, and so become a heauie and burthensome bread vnto the stomacke hardly to be digested, and ingendring great store of windines and spettle, drawen out of the ouen in time and place, and set vp where there is a good aire, and not in any filthie or stinking aire, that there it may euaporate the superfluous moisture that is in it. Such bread hauing beene thus prepared and ordered, must not bee eaten too hastily, as when it is new baked, nor yet the same day, but the day following in sommer, or the third day after in winter: for new bread especially that which is hot, doth retaine a great part of the moisture, clammines & slimines which it had in the kneading, & so being eaten new, would procure the inflation and puffing vp of the stomacke, pro- *The markes, signes of good bread.*

voke

uoke thirſt, be hardly digeſted, ſubuert and ouerthrow the ſtomacke, and cauſe obſtructions in the liuer and inward partes. It is true that phyſitions doe greatly commend in faintings & ſwonnings the ſmelling of the crummie part of the loafe comming new out of the ouen, and ſprinkled with wine. Olde baked bread eſpecially that which is three or foure daies olde, looſeth all his beſt grace and ſauour, and in ſteed thereof falleth into drineſſe and hardneſſe, and ſo becommeth hard of digeſtion, paſſeth ſlowly downe into the bowels, cauſeth coſtiuenes, and begetteth a melancholie iuice and nouriſhment. The *Cruſt of bread.* cruſt of bread notwithſtanding it bee of better taſte and reliſh then the crums, and that the common people doe thinke that it maketh a ſtronger body, yet it ingendreth a cholericke, aduſt and melancholie iuice, and that is the cauſe why in houſes of great perſonages they vſe to chip their bread.

What quantitie of bread muſt be eaten.

The quantitie of bread that is to be eaten. The quantitie of bread that euerie man ought to eate euerie day, cannot preciſely and ſtrictly bee ſet downe, with regarde had of the time, (for in winter men eate more then in ſommer) age, diſpoſition of the body, euery particular mans manner of liuing, and the cuſtome of the countrie or place, without the omitting of many other circumſtances. It is true that courties, chanons, monks, and ſchollers of colleges doe keepe and obſerue ſome rule that way, but not ſo conſtantly, but that it may be broken, as occaſions may be offered, which may perſwade either to vſe more or leſſe.

The diuers vſes of bread.

Bread is diuerſly vſed: but the two moſt common waies are to eate it either alone, or with other meates, whereunto it ſerueth not onely, as we haue ſaid before, in ſteed of a ſauce that is full pleaſant and delightfull: but alſo to correct their vices and faults if they haue any, and to helpe and ſtrengthen their properties and vertues, in ſo much as that all meate is wholeſome and healthfull, if it bee accompanied with bread. Sometimes it is toſted being cut into diuers thin ſhiues, for to eate after all other meate, for the drying of the ſtomacke that is too moiſt, and to hinder eſpecially in fat folkes, that the meate which they haue taken, bee not ſo ſodainly diſperſed into all the parts of the body. Some ſay likewiſe, that toſted bread being often eaten, doth make fat folkes leane, and conſumeth ſuch flegme as may be gathered in the ſtomacke: and being eaten all drie, in a morning faſting, it likewiſe drieth vp and ſtaieth all manner of rheumes and humours falling or gathered into any part or member whatſoeuer. This is the cauſe why phyſitions appoint bisket bread for ſuch as are troubled with rheumes and deſtillations. Some vſe toſted bread ſteept in wine with ſugar and cinamome, to procure an appetite vnto a dull ſtomacke, either in ſickneſs or in health. Some doe make ſippets or ſmall ſlices (as they

they call them) of bread dried vpon the coales, which they steepe an howre or more in water and wine, and after force them through a strainer or temze, adding thereto the powder of some small spice, and so make very pleasant sauces therewithall.

Washed bread is a meate very profitable for the health, in as much as it giueth a light kind of nourishment vnto the body, without making of any obstructions, and this bicause the washing of it doth wholie take away the heauines and clammines belonging vnto the earthie parts thereof, and so maketh it light and altogither airie: That this is true, you shal finde by experience, bicause that if you cast it into the water it swimmeth aloft like a peece of corke; and againe, if you waie it after that it is washed, you will woonder at the lightnes of it, for indeed you shall finde it not to be so heauy by the halfe. Old men of ancient time did cut it in slices, and washing it in water made great account of it in sharpe agues and such other diseases, bicause it is of smal & light nourishment, according as is required in such sicknesses: & in these daies we make no lesse account of it, saue that we vse not to wash it in water, but in the broth of meate, as of veale or capon possible, bicause of the daintines of this age: or else for the parties feeblenes sake, which (it may be) falleth out to be greater then it was in the bodies of those which liued long agoe. In steed of this washed bread, we vse a sort of bread which we call *Panade*, or a cooling bread, which is thus prepared. They take and crumble small the crummie part of a white loafe, not new, but old baked, or they grate it very small, after which they steepe it certaine houres in warme water or in colde water, changing the same three or fower times, and in the end boiling it at a small coale fire in an earthen pot, with buttered water, or some other fat put thereto. They that will make it after a finer fashion steepe it, and boile it in some capon broth, or the broth of a pullet, or some other such like meate; stirring it a long time and oft with a spoone: this *Panade* is good for such as are troubled with long diseases, as also for such as are in helth, but are troubled with crudities vpon their stomacke, of what cause soeuer they come, as also for them that haue but bad digestion: but chiefly good for such as by exquisite diet doe go about to cure the pockes. This *Panade* doth not heate as bread doth of it selfe, not being washed, or prepared thus in *Panade*. The meale of *Amydon* made in bread or papmeate, doth nourish in like manner that *Panade* doth. We haue set downe before how *Amydon* is to be made. Yoong children that sucke in like manner may be fed with *Panade*, and it is a great deale better meate for them then the pappe meate accustomed to be made them with cowes milke and wheate flower, bicause that such papmeate causeth infinite obstructions, feauers, headach, and wormes. *Washed bread.*

Some vse the meale of certaine sorts of corne, and of many sorts

of pulſe, after the manner of papmeate, as we haue alreadie ſaide, when we ſpake of mundified barley, which is a thing ſo highly commended of ancient phyſitions: but beſides ſuch manner of preparing of it, as we haue already deliuered in the chapter of mundified barley, theſe two following may ſeeme vnto me to be moſt excellent. Boile your barley in a great deale of water, as it were almoſt to the conſumption of the water, gather the creame that is vppermoſt, and take it with a ſpoone, and make thereof mundified barley. Otherwiſe: take the meale of barley well ſifted, put it in a bagge and boile it in a great quantitie of water the ſpace of fiue or ſixe houres, afterward draw the bagge out of the pot, and let it drop, and ſtraine it in a preſſe, let it ſtande and dry, and being drie, grate it as you would do drie paſte, and make mundified barley of it: ſome are of iudgement that barley thus prepared is not ſo windie. Some doe now and then put vnto it bread crums, and bruſed almondes, to make it more nouriſhing. It moiſtneth, nouriſheth reaſonablie, but cooleth much, it procureth not any gripes in the body, neither doth it puffe vp and ſwell the body or ſtomacke, but to be briefe, it perfourmeth all the helpes whereof *Hippocrates* ſpeaketh. Some likewiſe doe make papmeate of wheate meale and rice, which in truth do nouriſh more then mundified barley: but they loade the ſtomacke heauily, and cauſe great windines, and that becauſe for the moſt part they are boiled in cowes milke. The papmeate made of millet, pannicke, oates, and eſpecially of lentiles, beſides that, they are very vnpleaſant, are of very hard digeſtion, in ſo much, as that the day after that they be eaten, they are to be found in the ſtomacke: the papmeates made of cich peaſe, faſels, beanes, fetches, lupines, and other ſuch like pulſe, do ſwell vp the belly, and beget groſſe and melancholike bloud.

The two and twentieth Chapter.

Of paſtrie or baked meats.

WE haue ſpoken of the making, differences, and profite of bread, which may be made of any manner of graine, corne, or pulſe: now we will ſay ſomewhat of the skill, to make cakes, cheeſe-cakes, flawnes, tartes, and other baked meates, the which we deſire to be in our huſwife, that now and then ſhe may take occaſion at ſometimes of the yeere, to preſent her maſter and miſtreſſe with one diſh or other, as alſo be able to ſerue and ſet before her famille ſomewhat extraordinarie at feaſt times to cheere them vp withall. Such baked meates are of diuers ſorts, according to the matter whereof they are made, the manner of their baking, their ſhape and faſhion, the time when they are to be in vſe, and the countrey wherein they are made. The matter is as it were the ground worke of all ſorts

of baked meates, and that is, the flower of wheate meale forced through a bolter or fine fearce, whereunto many other things being added, do cauſe a varietie of baked meates. That it is ſo, ſome make wafers of the flower of wheate meale very well ſoked in water, and tempered a long time therewith, vntill it come to a certaine thicknes, mixing therewith a little ſalt finely powdred, and after cauſing the ſame to be baked betwixt two irons made hot, firſt with a reaſonable gentle fire, and after annointed with the oile of nuts; theſe kindes of wafers a man may ſee made in many places openly and abroad vpon feſtiuall and ſolemne feaſt daies. There may be made a tendrer and more delicate kinde of wafers, in ſoaking the flower of the wheate meale in white wine and water mixt togither, and throughly laboured and wrought, putting thereto afterward the yolkes of egges, a little ſugar and ſalt, & ſo baking all togither betweene two irons, hauing within them many raced and checkered draughts, after the manner of ſmall ſquares, after that the ſaide irons haue beene annointed with freſh butter or oile oliue. This ſort of wafers is wont to be ſet on tables at the ſecond courſes in ſolemne banquets. That which the Pariſians do call *Meſſier*, is made of the ſame flower of wheate meale tempered with water and white wine, putting thereto a little ſugar, and boiling it all betwixt two irons, after the manner which you vſed in making of wafers, but that it muſt not be altogither ſo thicke. The kinde of wafers called *Oublies*, are made with hony in ſteed of ſugar. Singing breads are made after the manner of *Oublies*, ſaue onely that the meale whereof they are knodden, is not mingled with honie, ſugar, or any manner of leuen whatſoeuer. *Eſtriez* and *Bridauceaux*, and *Marchpaines.* ſuch other daintie baked things, are made of the ſame ſtuffe, and after the ſame manner that fine wafers are, before deſcribed: marchpaines are made of very little flower, but with addition of greater quantitie of filberdes, pine nuts, piſtaces, almonds, and roſed ſugar, and they are the moſt wholeſome, delicate, and pleaſant tarts, of al the reſt. The Poplins are made of the ſame flower, knodden with milke, yolkes of egges, and freſh butter. The leaued cakes take not ſo much flower, and they are made without milke. Tartes are made after diners faſhions, & according to the time: ſome with fruits, that is to ſay, *Tarts.* apples, peares, cherries, & plumbs, eſpecially in ſommer: others with gooſeberries, kernels of crabs and ſtrawe berries in the beginning of ſommer. The Italians do make tarts of herbs, as ſcariole, lettuſe, blites, ſorrell, bugloſſe, and other herbes chopt ſmall and finely tempered togither. The greateſt part doe make them with cheeſe or creame, and manie of all theſe thinges mixt togither: if ſo bee that the tartes be of diuers matter and colour, that is to ſay, of plums, cherries, gooſeberries, cheeſe, or creame. Some make with butter, cheeſe and yolkes of egges diuers ſorts of cakes, flammicks, cheeſe cakes,

talmouſes & little lenten loaues. Wigs are made with paſte of flower of meale and freſh butter. Fritters and other ſuch ſweete conceites accuſtomed to be in requeſt vpon great daies and before Lent, are made of the flower of meale knodden with the yelks of egs and milke, and fried in a skillet with freſh butter: To conclude, looke how many countries, ſo many faſhions of paſte works, in all which notwithſtanding this is for the moſt part common, namely that they vſe not any leuen in any of them al, but onely the riſing of beere, and that becauſe leuen made of paſte would make them too ſower, or infect them with ſome other taſte too vnpleaſant and vnbeſeeming baked meate, and hinder the whole & intire incorporating of thinges mingled amongſt the meale whereof it is made.

Whatſoeuer it is: All manner of baked meates are more for the pleaſing of the taſte then for the health of the bodie, in as much as they are giuen to load the ſtomacke very heauily, and not to digeſt very eaſily. It is true that being eaten at the end of meales after other meates, they may ſerue in ſteed of marmalade, to ſend the former vittailes downe into the bottome of the ſtomacke, and to preſſe together the belly.

The three and twentieth Chapter.

Of the brew-houſe.

IN many places of France the vine cannot grow to proſper: but to recompence ſuch a want, there groweth all ſortes of corne verie fruitfully and in great abundance, as in *Normandie*, *Britaine*, *Picardie*, and other coaſtes lying vpon the north ſide of the land, where the cold ſeazeth moſt ſtrongly, and where the rugged and ſterne windes doe ouerblow the earth with their coldnes: ſo that in thoſe countries, neceſſitie, the mother of all skill and cunning inuention, hath ſtirred vp the men to deuiſe ſome kinde of drinke made of corne to ſerue them in ſteede of wine. Of that ſort is their drinke called beere, ale, ſmall beere, meade, gootale, beere and bread, and many other drinkes, which the Germans, Flemmings, Polonians, Bohemians, Engliſh, Scots, and other nations towards the north, doe vſe in ſteed of wine.

This is the manner of making beere at *Paris*. The faireſt, pureſt, and cleaneſt barly and oates that may be gotten, being prouided, and thriſe as much barlie being taken as oates, but of both ſuch a quantitie as may be proportionable to the intended quantity of beere, they put them to ſteepe together in a fat for the ſpace of fower and twentie howers more or leſſe, according to the age of the corne in a ſufficient quantitie of riuer water, rather then either ſpring or well water, and after this ſteeping time, they take and carrie them vp into a garner, to lay them on heapes to ſprout: being ſprouted they ſpread them abroad round about the garner for to rot and putrifie: being rotten

they

they cast them into rowes: from out of the garner they carrie them to the kill for to drie: being dried, they carrie them againe into the garner or some chamber, or into some other place for to fan them and cleanse them from all their dust and filth, and from thence to the mill there to grinde them and make them into meale. Which done they put this meale into a fat, powring vpon the same hot scalding and boiling water, proportionably and according to the quantitie of the meale, that is to say, fower barrels of water, and a tun and halfe of water, to fower seame or quarters of meale, leauing the same for the space of an hower to drinke in this water: afterward they put the meale aside with their stirrers: being thus cleered the one from the other, they powre in againe as much boyling water as they did before: then afterward they take two maunds (made like vnto beehiues) of ozier, and these they sinke and thrust downe amongst the corne, and cause to be so kept by two or three men, to the ende that in the meane time some other man may by the inside of these maunds draw and draine out the water wherein the meale hath steept, and powre it into another fat close by. Then they take all this woort or drained water and powre it into some sufficient large copper, holding betwixt fiue and six tuns more or lesse, causing it to boile in a furnace a good hower, and afterwarde emptying the copper of the boiling water that is therein, they put it in with kettles or pans againe very softly, and all boyling into the fat amongst the corne, or drosse of the flower from which it was drained before, and there they let it remaine a certaine time, afterward they draw forth the thinnest of the licour, as cleere as may be, by a stopple which they haue for the purpose in the bottome of the fat, and that they powre againe into the copper suffering it to boile there for the space of twelue howers. And into this thin cleere licour being thus in the copper they put some fiue or six pounds of the flowers of hops very drie and sweete. When the hops and licour shall haue thus boiled twelue howers, they emptie the copper againe and put the woort to coole at leasure into other vessels called flotes or coolers, and they be broade like vnto the fats, but onely one foote deepe. When it is cold, they put it to turne into a small vessell containing halfe a tunne, with two kettles of beere and of the rising of beere already throughly made, for the better cleansing and purifying of the same. This rising is made of the froth which riseth out of the fat, when the best and cleerest woort is newly turned in and falleth to the bottome in the tubs, which froth turneth into leuen and becommeth hard, and with the same doe the bakers or cookes making baked meates now and then serue themselues to make their wigs, buns and most part of their finest baked meates, They renewe the force and strength of the yeast or leuen euerie hower with beere already made, so long as till the said leuen or yeast become strong inough of it selfe,

Beere rising.

which you ſhall know when you ſee that it is well riſen, euen as workers in paſte doe geſſe and gather, when they ſee their paſte well riſen. The beere being ſufficiently ripened and leuened, they tunne it vp into barrels or halfe barrels, and there they let it boile and worke fower and twentie howres in their ſaid veſſels, then they bung vp the ſaid veſſels, and giue them vent ſomtimes, for otherwiſe they would burſt. And thus much concerning the manner of making of beere amongſt the Pariſians, for with this beere thus made they content themſelues, and it indureth all times and ſeaſons, and ſtandeth out good both winter and ſommer, harueſt and ſpring. And whereas it goeth for good paiment and ſound, that the beere brewed in March is the beſt, it may poſſibly be ſo, by reaſon that then the hops are in their prime and chiefeſt force and vertue.

The Germans doe make their ale with barlie onely, not vſing any hops: ſometimes they put thereunto a fourth or ſixth part of wheate, to make it more ſubſtantiall and nouriſhing. Very often in ſteede or for want of the flowers of hops, they put in of the ſeede of the ſaide hops.

The Bohemians and Polonians doe make theirs with barlie and wheate, which they ſteepe in the decoction of the ſeede or flowers of hops, ſo greatly ſtanding vpon the requiſitenes of their hops thereunto, as that they were wont to puniſh greeuouſly ſuch as did cut downe or vnprofitably deſtroy any hops amongſt them. Againe they husband and dreſſe their hops as carefully, as wee doe our vines: they gather the flowers and fruit at a certaine time, not ſuffering any thing to periſh and bee loſt: in as much as the decoction of hops doth not onely ferment and leuen the corne and graine that is ſteept therein, but withall indueth the ale or beere with a reſemblance of ſome ſort of wine.

The Engliſh, Flemmings, as alſo the Picards, doe make their beere with equall quantitie of barlie and wheate very well boiled, which the Engliſhmen and Flemmings do call Ale & Gud ale, or double beere, and the Picardes call it double *Quoute*. They ſometimes put thereto ſome darnell, to giue it a quicker and ſharper taſte. The Flemmings doe put thereto the crums of bread, apples, butter, and a little nutmeg to make it the thicker. The Engliſh to make it the more pleaſant, doe put into the veſſels ſugar, cinnamom and cloues, ſtirring and rowling the ſaid veſſels afterward very much. The Flemmings alſo do mixe therewith ſometimes honie and ſpices, and make as it were a kinde of hippocras which they call Mede or Mete. But howſoeuer, according to the mingling, ſteeping, fermenting and boyling together of the graine in vſe for the making of their beere: ſo the beere becommeth ſharpe, bitter, ſweetiſh, wateriſh, ſtrong, mightie, weake, cleere, troubled, more or leſſe durable, and of other ſuch like qualities.

To

To preuent the decay of beere, and to cause it that it may continue, and stand good a long time, cast into your beere vessels a great bag, full of many tender eares of wheate, and there leaue them a long time: And, if it begin to fade and weare out of hart, hang two or three whole egs in the vessell. If it haue lost his good relish, you may recouer it againe by casting into the vessell the rootes of Ireos, ginger, cloues, nutmegs, bay berries and organie. *The faults of beere.*

As concerning the temperature of beere there is no doubt but that it is hot, and that more or lesse according to the things going to the compounding and making thereof: for notwithstanding that barly by nature be colde, neuertheleſſe by meanes of the steeping, fermenting, putrifyng, killing and boiling that it indureth whiles the beere is making it is impossible but that it should be made and become somewhat hote, then furthermore the hops, whether flowers or seedes, being mixt therewithall, doth by his heate, temper and alter very much the naturall coldnes of the barley. If that wine (as *Galen* saith) be nothing else but a water, which in processe of time purchaseth a hote substance to it selfe in the stocke and woodie partes of the vine, by the meanes and force of the heate of the sun, in like case, barly in the making of beere purchaseth a heate by his long lying in steepe, boiling and putrifiying which it indureth. Againe the taste and relish of beere doth argue the same to be hote, seeing if it be good it must be either sharp, or bitter, or sweete: for that which is sower or sharpe, like vineger, or eager, is not good nor well made: The effectes of beere doe likewise prooue it to be hote, for it maketh drunken, yea and that a great deale more then wine doth, by reason of his vaporous and thick substance: it feedeth also and nourisheth, especially that which is made partly with wheate or the graine called furmentie. Yet further, if it be distilled in an alembecke, it maketh Aqua vitæ, no lesse then the wine: It is true that beere though it be hotte, yet it is in diuers and sundrie degrees of heate according to the temperature of the ingredients: for that which is made of barley and spelt corne without hops, or with a verie small quantitie of hops, is the least hote of all the rest: and that in such sort as that it becommeth a fit drinke to quench the thirst and to coole the body during the scorching sommer heate: that which is made of barly and oates is a little hotter: as that which is made of barley and wheate is yet more hote and very much giuen to feede and nourish. But howsoeuer, all beere of what corne soeuer it be made, is of a more thicke substance and harder of digestion then wine: and which (if either it be ill boiled, or newlie made or troubled,) ingendreth obstructions and inflations or puffing and swelling vp of the inward parts: headach, colicke, stone, grauell, strangurie, the heate and scalding of the vrine; especially if it be sharp withall: if it be too olde and drawing *The temperature of beere.*

toward sowrenes, it hurteth the stomacke and sinewie parts: as also it begetteth the leprosie, if we will beleene *Dioscorides*. And therefore you must learne to drinke only such as is well boiled, fined and grown to a meane and indifferent age.

Notwithstanding that beere (as *Dioscorides* will haue it) be enemie vnto the sinewes, and that those which are drunk by taking excessiuely of the same, haue their members and partes more weake, then they which haue become drunken with wine: yet the truth is, that it comforteth the wearied by running or much walking, if so be that such persons doe but foment and bathe their feete in beere reasonable warme.

The fatting of hens and capons. You may fat your hens and capons in a short time, if in steede of water you giue them beere to drinke: or if you mingle their meat with beere.

Toothach. If you boile new hops with beere and keepe them in your mouth, it will stay the toothach.

Bakers or makers of baked meats (as we haue said before) doe vse (in steed of leuen to knead their crusts withall) the hardned froth of beere, which because it is windy and flatuous, doth make the bread light as it were full of eies.

To scoure vessell. The grounds of beere doth serue to polish and scoure brasen vessel, if they be laid to steepe therein some certaine time.

The end of the fifth Booke.

THE SIXTH BOOKE OF THE COVNTRIE HOVSE.

The Vine.

The first Chapter.

Of the profit rising of a well dressed vine and vineyard.

HItherto we haue intreated of the husbanding, tilling, ordering and dressing of garden plots, orchards, and arable ground: it now remaineth that wee speake of the vine, whereupon for certaintie dependeth the greatest part of the reuenewes and riches of a householder, howsoeuer many make small accompt of the vine, and doe more esteeme to haue possessions of medowes, pasture, woods, and other grounds, then to stand to the reuenewes growing by

by vines, in as much as for the moſt part, they yeeld not the fruite, which may recompenſe the charges laid out about them: But for all this the vine is not to bee diſcredited ſeeing this is not the fault of the grounde, but of the people that till it, and either for couetouſnes, or ignorance, or negligence offend in the tilling thereof. It is true that the husbanding and ordering of the vine is chargeable, painfull, and a matter of great care, by reaſon of the tendernes of the wood: which being well conſidered, may ſeeme to haue come to paſſe by a ſpeciall prouidence of God, directing the ſame and making it ſo weake, tender and feeble, to the end that this plant might not ſerue for any other thing, then to bring foorth the excellent and precious licour of wine, which is ſo needfull for the ſuſtentation and life of man. For and if it were fit for any thing elſe, as the wood of other trees is, it would bee imploied, and wine thereby would become a great deale more deere then it is.

The greateſt part of vine dreſſers doe nothing eſteeme or make any regard in what ground the vine bee planted, but doe make choiſe of the worſt quarter in all the countrie, as if the worſt ground, and that which is good to bring forth nothing elſe, were the beſt to plant vines in. Others haue not the iudgement to know and chooſe their plants, and for that cauſe doe oftentimes plant their vineyardes with ſuch yoong vines as are naught. Againe many hauing no reſpect of the time to come, doe in ſuch ſort order and dreſſe the vine, as if they thought to liue but an hower, burdening and loading it with ſo many branches and ſhootes for propagation, and leauing vpon it ſo much wood, as that it cannot continue and proſper any long time. Others although they know the way to order and dreſſe it well, doe yet continually omit certaine courſes and ſeaſons, as being more buſily imploied about their owne profit, then their maiſters welfare.

Likewiſe I would alwaies aduiſe the Lord of our countrie farme, that he would not altogether commit the care and charge of his vineyard vnto his farmer, but that he himſelfe would lay the cheefe burden about it, vpon himſelfe: for as the maiſters eie maketh the horſe fat; ſo the carefull induſtrie of the Lord or chiefe owner, maketh the field fruitfull and to beare great ſtore of increaſe, and for that likewiſe the owner and lord of the vine will not onely ſpare it better, but alſo ſee that it be not defrauded of any ſuch toile and labour as it requireth, contrarie (for the moſt part) to the practiſe of ſuch as are but ſecondarily intereſted in ſuch matters: the vine being ſuch a peece of inheritance as wherin euery ſmall fault committed, doth draw after it great loſſe, & ſuch as oftentimes cannot be remedied or repaired, but by ſupplanting what is done and replanting it a new. And that it is no otherwiſe, but iuſt ſo, marke and ſee, if euer you heare the *Gueſpines* of *Orleance*, or the *Beaunoies*, & thoſe of the duchie of *Burgundie* (which haue

haue large grounds imploied in vineyards) to complaine themselues of their vines, & that becauſe themſelues take the whole care and reſerue the principall ouerſight vnto themſelues. On the contrarie, the *Pariſians* haue no other complaints or aggreeuances to talke of but of their vines, and that becauſe they credit deceitfull & ignorant workemen wholly to ſway the worke: whoſe couetouſnes, ignorance, & negligence is for the moſt part the cauſe, that they reape not the fruite of their vines in ſuch plentifull manner, as they ſhould, or at the leaſt that the fruit which they do reape, is not ſo durable as it would. And this you muſt thinke that vines will yeeld a larger reuenew a great deale then gardens or other arable grounds, if they be well and diligentlie husbanded, for there are few arpents of vines to be found which yeeld not euery yeere, one yeere helping another, ten or twelue tuns of wine which is a great reuenew, and yet remaineth vnreckned the benefit and auailes which may be made of ſmall plants and impes, which may be gathered to tranſport or tranſplant into any other place: which will eaſily amount to more then will ſatisfie and anſweare all the coſtes and charges which are laid out any maner of way about the vines. Wherefore either the reuenew riſing of ſuch plants by ſale, or the hope of the vintage and gathering of wine, muſt be the ſpur to pricke forward the maſter of this our country farme, to looke to the ordering & dreſſing of the vines himſelfe.

The Pariſians negligent ouerſeers and huſbandes about their vines.

The ſecond Chapter.

What ſoile and aire the vine doth moſt delight in.

Two thinges to be conſidered in the planting of vines.

THE vine groweth not but in certaine places that are fit and naturall for it, which is a thing to be accounted of by vs, ſo much the more excellent, becauſe the ſpeciall propertie of this plant is more commended by men then any other, in reſpect of the good it miniſtreth, which is that in ſuch places as it groweth in the men are found to be more ſtrong and mighty by the vſe of it, then other men are, which for want of it, are forced to vſe other drinkes.

As concerning the ſoile to plant it in, there muſt two things bee conſidered, the quality of the ground where it is to be planted, and the diſpoſition and inclination of the aire which ruleth in that place. As concerning the quality of the ground, you ſhall chooſe ſuch a one as is not very churliſh and cloſe, neither yet very light and open, but yet of the two, more inclining vnto a ſmall mould and open ground. neither leane nor very fat, and yet ſomewhat the rather inclining vnto the fat: not champion, nor a very plaine and flat: (and yet in ſuch grounds there growe more wine) neither very ſtiffe and ſtraight, but rather ſomewhat raiſed then otherwiſe, that ſo it may bee the better

aided

aided and succoured by the fauourable beames of the sunne : neither dry nor moist and watersh (because in such ground the vine continueth not long, neither doth it bring foorth good wine, but such as is quickly perished) and yet indifferently serued with water : not such a one as hath any fresh springes or fountaines, either breaking out euen with the vppermost face of the earth, neither yet caried along within, in the depth of the earth belowe, but onely in such sort, as that neere vnto them there may bee water to moisten their rootes withall: and the same moisture must not be either bitter or salt, to the end that the taste and sauour of the wine may not be spoiled. So that by this it appeereth that it is not meete to plant vines in deepe and lowe valleies, albeit they might, and would bring foorth grapes in great abundance, and that because they would not ripen in due time, and so there woulde be made of them, no better then a greene wine, of small value: adde heereunto that vines seated in lowe vallies, are very much endangered by the frosts of the winter and spring time, and are also subiect to haue their grapes to burst, and to run out their iuice & to rot, which would cause a mustie and foughtie taste in the wine: and therewithall when the yeere is rainie, the kernels cleaue and burst out through the aboundance of moisture, by reason whereof the grape being in this sort too much moistned, and nothing at al dried, the wine becommeth vnsauorie & apt to grow sower, and fall into many other faults. And if you happen to light on such a place, then chuse to plant there such plants, and yoong shootes as may beare clusters, not too thicke set, but growing somewhat thinne, that so the sunne may easily pierce through them : much lesse may you plant those vines which haue their pith taken out, and bring foorth a firme and solid grape in colde and moist grounds : as neither yet in a hot and dry grounde, such vines as haue substance inough in them, and beare a grape somewhat soft. But chiefly if your place be so well appointed by nature, as that it consist of and conteine grounds that are fit and meete vpon the tops of great hils, together with some lowe and small hils, then make choise of them to plant your vines thereupon : it is true that it will hardly grow there at the first, but hauing once taken roote, it will yeeld a very pleasant and noble wine, such as the wines of *Ay*, *Hardre*, *Argentueil*, *Meudon*, and *Seurre* be.

In generall, if you woulde plant a vine which may profite you in bringing foorth aboundant store of good fruite, you must see that the ground be gentle, easie, fine, and indifferent light to be stirred : not as though such a ground only were good for vines, but for that it is most kinde, naturall, and best agreeing for vines to bee planted in sandie, stonie, grauelly, and flintie ground, as also such as consisteth of a potters claie in the bottome, and couered ouer with earth is good; prouided that they be intermingled with some fat earth, and that they be

often

often refreshed by being digd euen to the veine of stones, or rocke: In a sandie, clayie, and churlish stubborne grounde, the first digging and casting of it must bee good and deepe: and such groundes also would be thrise digd or cast at the least. Such groundes bring foorth strong and delicate wines: but such groundes as haue of stones or flintes great store, vpon the vppermost face of the earth are not fit for vines, because in sommer they stande at a staie, by reason of the great heate of the sunne, being beat backe vpon them by the saide stones: and they doe no better in winter bicause of the excessiue colde which in like manner then troubleth them. True it is, that if a vine be planted in a grauelly, rockie, and stonie grounde, that then it will not bee needefull to cast so deepe, because the roote is not so farre downe into the earth, as is the new planted vineyard which is made in a sandie soile, and it is contented with twise digging for the most part. A soile standing vpon Walkers clay or marle, as *Loegny* vpon *Youne* is very good for vines, but the groūd standing vpon a potters clay is not good. In like sort the grauelly ground is not altogether fit, for though it yeeld a daintie good wine, yet it yeeldeth but a very little, and there also the new planted vineyard is very subiect vnto the hauing of his grapes washed away: the dry and burning earth doth yeelde leane vines if it be not helped by the dunghill.

What aire is fit and requisite for the vine.

As concerning the power of the sunne and disposition of the aire, the vine delighteth not to bee planted vpon the tops of mountaines, and much lesse in places lying open vnto the Northeast winde: but it delighteth in an aire that is rather hot then colde, and faire rather then rainie, it cannot abide tempests and stormes: it reioiceth in a small, gentle, and frindly winde, and woulde be turned towarde the East or South. It is true that generally in colde places vines must stand vpon the South: and in hot places vpon the North or East: prouided that they be sheltred at such time from the windes, as well of the South as of the East: if the place be subiect to windes, it will be better that it shoulde be to the Northren or Westerne windes then otherwise: in temperate places either vpon the East or West, but the best is towards the East.

Furthermore in as much as it is a verie difficult thing to finde all these commodities and good properties of grounde and aire in euerie countrie: the good workman shall fit the plants of his vines vnto the nature of the places and countries. Wherefore in a fat and fertile ground he shall set the yoong plant of a small vine, and such a one as beareth but little, as the Morillion, the Melier and the Aubeine: and in aleane ground the plant that is verie fruitefull, as that of *Samoureau*, *Tresseau*, *Lombard*, *Ouch*, *Muscadet*, *Beaunois* & *Pulceau*: in a thicke & close ground, the plant that is strong and putteth foorth great store of woode and leaues; as that of *Morillion*, *Morlou*, *Tresseau*, & *Pulceau*:

in

in a ſmall mould, and reaſonable fat ground; the plant which putteth foorth but a little wood, as that of *Samoureau*, *Lombard*, and *Beaulnois*: and by this meanes the defect and want, or the exceſſe and ſuperfluity of any qualitie in the yoong plant of the vine, ſhall be ſupplied or corrected by the nature of the ground, and that in ſuch ſort and manner as that of two exceſſes ſhall ſpring one meane and well tempered thing, which is a point to be wiſhed and requiſite in the growing of all ſorts of plants. Furthermore he may not plant in moiſt places the yoong vine plant which is giuen to beare tender and groſſe grapes, as that of *Samourean*, *Gouet*, *Mourlous*, *Pulceau*, *Cinquaine*, & *Treſſeau*: but ſuch as haue woont to beare hard and ſmall grapes with manie kirnels in them, as thoſe of *Pinot*, *Sarminian*, *Aubeine*, and *Treſſeau*. In places toſſed with windes and ſtormes, he muſt prouide to plant ſuch a kinde of vine, as is woont to bring foorth hard grapes and ſticking faſt and cloſe vnto the ſtalke: but on the contrarie, that which ſhall haue accuſtomed to beare tender grapes in places that are hot and giuen to be milde. In dry countries he muſt plant thoſe vines, the fruit whereof is woont lightly either through raine or the dewe to rot: as thoſe be of *Samoureau*, *Gouet*, *Pinot*, *Blanke*, and *Beaunoies*: and in a moiſt place, thoſe which are woont to ſpoile and periſh through drines. In countries troubled with haile, ſuch as are of a hard and large leafe, for ſuch are able the better to defend and couer the fruite.

The third Chapter.

How that there is not planted any vine by the way of making a ſeede nurcerie, except it be onely for pleaſure.

I Am of that minde that a man cannot but hinder and iniurie himſelfe in making nurceries of vines, for beſides that the tree doth not grow ſooner of kernels then it doth of the plant, there is alſo this inconuenience, namely, that the vine growing of kernels doth not yeeld any thing of profite or good for vſe: This is indeed a worke for ſuch as loue their pleaſure, and haue in their purſes largely to defray the charges thereof, being able thereby to ſowe ſeedes out of ſome ſtrange countrie, afterward to raiſe a nurcerie of ſtocks of the ſame when they are growne vp for to be tranſplanted and remooued into a better ground, and that they may graft thereon, & afterward againe remoone the ſtockes ſo grafted into a better ground alſo, that ſo about two yeeres after they may reape the fruite thereof, which is woont to be both great and daintie inough: but yet this ſame newe vineyard thus planted is the leaſt durable of all others. Againe, in this countrie we do not trouble our ſelues in planting vines to run vpon trees, in ſuch ſort as any man may eaſilie ſee that they do in *Lombar-* *Vines vpon trees.*

die

Vines after the fashion of an arbour.

die and other places: neither yet with such as are raised vpon single and double shadowing arbours, neither yet with such as vse to creepe along and spread themselues vpon elmes or other trees: for the wine neuer prooueth so good, as well because the roote of the tree is corrupted, after the manner as it falleth out with colewoorts; as also because this plant loueth not to be hoised and mounted too high: neither yet shadowed with any building of timber worke, higher then the stature of a perfect man.

The fourth Chapter.

How that before you plant your vine, you must learne out, what wine the earth will beare, where you are purposed to plant it.

How to trie what wine the ground will best beare.

HE that is purposed to plant vines, must not so much trust vnto the markes and signes of a good ground, declared and set downe before, as first to see that he haue made triall what wine the ground will best beare, where he mindeth to plant his vine; for it were but labour lost and money cast away to plant a vine for so small increase as can nothing like answere and content your expectation. Thus then you may trie and proone your ground: make a pit in the ground where you meane to plant it, of two foote depth, and of the earth cast out of the pit, take a clod, and put it in a glasse full of raine water that is very cleane, mingle and beate togither this earth and water, then let it rest, vntill such time as the earth haue made his perfect residence and setling in the bottome of the glasse, which is easily perceiued by the cleerenes of the glasse which will follow thereupon: and after that the earth is thus throughly setled, taste the water, and looke what relish or taste it hath, such would the wine be, and therefore a vine yeelding such a relished wine fittest to be planted there.

To manure vines is a dangerous thing.

Therefore if you finde therein a bitter taste, a saltie or allumlike, or any other such vnpleasant taste, auoide and cease to plant any vine in any such ground. Which if it be true, then to dung and manure vines is altogither to be condemned: bicause it is very hard that earth fed and nourished with dung, should not taste and retaine the smatch of the dung, and so by consequence communicate the same with the wine. Wherefore the Parisians are fowly and foolishly ouerseene to load and lay vpon their vines yeere by yeere such store of dung, and that is the cause for the most part, why their wines haue an vnpleasant taste, and doe easily and very quickly corrupt: and yet further the dung doth cause the vines to grow old by and by and become barren, because they put foorth all their goodnes the first yeere.

The

The fifth Chapter.

Of the choise of yong vine plants.

THe choise of yoong plants whether they be crossets, marquets, or the tenais, must not be put to the discretion of the seller, who little careth to take the fit season for the gathering of the saide yoong plants, neither yet for the goodnes of them, but altogither to his diligent and heedfull care which is the workmaster: and for that cause it woulde be best for men to take them of their owne vines, or else at the least to haue those which he shall buie, warranted to be good: he must also haue regarde vnto the quality of the aire and situation of the ground where he will set his plants, that so he may fit them for the same. For and if the ground lie vpon the south he shall choose the yoong branches of vines which he will plant from the same part and quarter: if he meane to plant them in a high place, he shall gather the plants vpon some high and tall vine: and if low, then out of some low vineyard: planting in a hot, cold, dry, or moist ground, he shall choose his plants for the renewing of any failing or decaied, of the like situation: by this meanes the plant will fasten it selfe the sooner in the ground, and it will bring foorth fruit sooner and a great deale better then and if it should be otherwise. Likewise he must not keepe the yoong plant any long time before he plant it; for, no more then trees which are to be remooued, can the vine well and easily endure after it is cut to be long kept vnplanted: neither yet would it be caried far, or remooued out of his owne soile into another, bicause it feareth the change of earth and aire: and thereupon it commeth that the yong plants brought out of strange countries, as from *Beaune*, *Rochell* & *Burdeaux*, cannot prosper so well in our soile, as those which grew there first. To make good choise therefore of crossets to plant new vines of, you must see that the vine from which you gather such crossets be but sparingly furnished with pith, bicause that such a one is not onely fruitefull and bearing abundantly, but bicause also it is not so subiect to the iniuriousnes of time, as snowe, fogges, frostes, and the burning of the sunne in sommer time, as those which haue much pith in them, afterward when the vines begin to bud, you must diligently view, about the beginning of September, those that are most laden with grapes, and which are most fruitful, and haue most eies in their branches, which haue not beene iniuried or hurt by the hardnes of weather, and which are neither yoong nor old, but in their chiefest strength, & middle age, or not much past. Of such vines must your branches be gathered (in the increase of the new moone, somewhat late of the day in the afternoone) not of such as grow most low, nor yet of such as grow highest, but of the middle growth, and

The choice of young vine-plants.

such

such as are round, smooth, and firme, hauing many eies, and about three fingers of old wood together with the new. It must be planted presently, that so it may take the sooner in the earth, whiles yet it is in life: or else presently as soone as it is cut off to wrap it in his owne earth, not tying it hard, as also, if you would keepe it a long time, to put it in a vessell full of earth, well closed and stopped perfectly on euerie side, that so the aire may not any way wrong it: or else, if it be to be carried into any far countrie, to sticke it in an onion, or wilde garlicke, and then before planting of it to steepe it in water, especially if the ground from whence it is gathered be dry by nature. The vine dressers of the dutchie of *Burgundie* before the planting of crosslets do cause them to be steeped one whole day or a night in running water, and finde by experience that the said crosslets doe take more easily. Others cause the branch to be set and planted by and by, that so it may take the sooner.

The sixth Chapter.

The manner and way to plant vines.

THe first casting of the earth for to plant the vine must be done in the spring or sommer, in which first digging or casting of it, the ground must be cleansed of all superfluities, as rootes, weedes, and stones: it must be digged and renewed oftentimes, to the end that the earth which is vppermost, may be brought vnto the bottome, and that in the bottome may be turned vppermost, to moisten and refresh that which is drie, and to heat and dry that which is moist and thicke: and afterward made euen and cast into many furrowes and pits of a foote and a halfe bredth, and of depth, till you come to the hard stone in the bottome, & the knights or guids of the one side and the other, of such a thicknes aboue, as may answere to the depth of the furrow, which yet must be made hollower in a rough and crabbed ground then in a sandie, flintie or wet ground: in the bottomes of the sides of which furrowes, there may be put stones, so that they be no bigger then a loafe and couered with earth, for the cooling of the vines in the heate of sommer, as also to the end that vpon great raine, the water may finde passage, and not stand at the roots of the plants. Whereupon your ground being well laid with stones in this sort, and rested and setled after the first digging of it, and being in the time of this rest turned ouer and wrought for the taking away of the couch-grasse and other weeds, you must spie out some calme and quiet weather to plant in, according to the place where you shall be and the nature of your ground: prepare, make readie, sharpen and cut off the roote and hairie threeds of your yoong plants, and fit them well for the

Cheualiers.

the South sunne: plant them in the middest of the furrow, in the plain flat, where your foote vseth to tread, and one right ouer against another, and after the manner of a Burgundian crosse, for to make them (after that they are couered with earth, and olde made dung, or with the earth which hath been cast out of the furrowes, and throwne vpon the ridges) leape to the two sides of the furrowes towards the ridge of either part: for so they beare more fruit, and this is called the double plant, which must be vnderstood of the plants onely, which are so planted in doubt that if one doe die, the other may escape, or that and if they both take, the one of them may be taken vp, to put in place where others haue failed. For howsoeuer the plant set of a crosset may make the better foote and roote, yet for certaine it is harder to take then the marquot, although the marquot be not so lasting and of such continuance, in as much as the crossets do put foorth rootes of themselues. Furthermore, you must cut off the greatest woode, and most knottie from the vine stocke, which you know to be the fairest and most fertill, and it must consist both of old and new wood: it continueth fower yeeres without fruite, and on the other side, without some misfortune it is seene to continue thirtie yeeres in his vigour and lustinesse. After it is cut off, it must be cut fit not leauing aboue three or fower ioints at the most, two whereof (in planting it) may stand abot e ground: and if it haue put foorth any eielet, you may rub it off with your finger, or nip it off with your naile.

If you make lesser furrowes, you must plant them after the fashion called *Engodeau*, after the *Angeuin* fashion, setting euerie one distant from another two foote, one marquot betwixt two knights or guides as is vsually obserued in planting of stockes in the nurcerie of fruite trees: and after that to leaue it fowre yeeres in the same state; that it may be laide downe againe when it is growne, that is, some two or three yeeres after it hath put foorth strong and able woode: in such sort, as that to vines so planted there neede no propping or vnderbearing: for the chiefe and principall foote as it is in trees, doth sufficiently beare vp the sciences putting foorth of the same. In *Languedoc* and *Prouence* they plant them in this sort, but they pricke them downe a great deale further off one from another, and set an oliue tree betwixt euerie two, which nothing hindreth by his shadow either their growth, or the sun from hauing full power vpon them. And yet they leaue not so, but as is vsed in Italy, they set in euery furrow fiue or sixe rowes of pulse or wheat, and yet so as that there groweth no intanglement betwixt them and the vine, as not being set or planted amongst them, and yet they let not to plant the oliue trees in corne fields, prouiding as hath beene saide that the shadow thereof doe not any thing hinder the growth of the graine.

Cheualiers.

The manner of plating of vines in Languedoc and Prouence.

The oliue tree is no hinderance to the vine.

To plant the marquot.

The marquot woulde bee planted assoone as it is raised from his

stocke, with his whole furniture of twigs, and that alone in the midst of the furrow, bicause of his small sprigs, seeing there is no doubt made of the taking of it: againe, it must haue a bed and spreading place of greater length: it groweth sooner (as hath beene saide) then the Crosset, but in like manner as the grafted one, it indureth the least and shortest time of all the rest.

After that you haue planted your Crossets or marquots, you must bow them wel at the foote to make them take roote, & afterward cast downe the earth of the ridge both of the one side and the other, that so it may fall vpon the saide plants. At *Chablyes*, *Tonnerois*, and *Auxerrois*, in planting of marquots (but not hauing any hairie rootes) they writh them halfe about very gently, and vntill they cracke and cleaue a little, not suffering them to come together againe.

There is another manner of planting of Crossets and not the marquots (for his hairie roote cannot endure and abide it) which is called by the termes of planting, *en barrhe*, *en fiche*, or as it is called in *Anion*, *en godeau*, and it is by pricking downe on a rowe the saide plants, or else so as that two may stande right ouer against one that is alone, as the manner is to do with willows: and afterward to couer them ouer, and to pile and beate them as hath beene saide.

To cause the new plant to take roote very speedilie.

Furthermore, to the end that the new plant may take roote verie speedily, it will be good to put to the foote thereof acornes and fetches bruised and grounde togither somewhat grossie, or else beane straw, or dung that is old and made long since, or the chaffe of wheat which is fittest of all, if there may be any found that hath laine rotting some where in standing water for the space of one yeere or more, or fat earth, if in case that the grounde where you plant your vine be but a leane earth; but and if it be a fat soile, it will bee fit to put therein the drosse of the pressing of grapes, mixt with dung made of the drosse of white grapes, if the plant bee of a blacke vine; or of blacke grapes, if the plant bee of a white vine. Some do powre vrine thereupon, to worke the feate withall, and others the lees of wine. It is true that some hold it for certaine, that vrine is altogither contrarie to the vine plant, and that it causeth the same to looke pale and white, and in succession of time to kill the stalke, whether it be Crosset, or a Marcot.

That nothing must be sowne amongst the vines.

You must not mingle if it be possible, any other plants amongst the vines (howsoeuer some doe sowe amongst them beanes, gourdes, and cucumbers, (bicause that whatsoeuer is sowen amongst the vines, doth steale away from them their nourishment, and becommeth woonderfull harmefull and iniurious: aboue all other things the vine hateth the colewoort, as we haue alreadie said in the second booke.

That vines must not bee planted of diuers plants.

Againe, vines must not be planted of diuers plants, because all vines doe not grow at one time, neither are they all of one nature: for some

some beare earlie fruits, and some late fruits: likewise the fruits themselues do differ one from another, for some are red, some blacke, some white, some sweete, some eager and sowre, some durable, and other some not durable: wine is better old, than new: some is drunke presently after it is made; one delighteth in one manner of dressing, and another in another. Wherefore you must not mingle diuers plantes together, for there is nothing that so much spoileth wines, as when the grapes that are early ripe are gathered with the late ripe ones, and the white with the blacke, because they are of contrarie natures. And if any man be desirous to haue many sorts, then he must plant them apart one from the other, that so he may order them, inrich, cut, and gather them in their nature and season, that is to say, the more forwarde and fruitfull first, and the backward and late ones last: or which is better, if a man desire to haue diuers sorts of yong plants, to the end that if one misse he may be in possibility to haue others that will speede; in steed of mingling diuers plants together in the same ground, he must haue so many inclosures, or quarters for vines (to the end they may by them be euerie one separated and distinguished from another) as he will haue sorts and diuersities of plants.

The seuenth Chapter.

In what ground, with what manner of inriching, and at what time of the yeere, the yoong vine plant ought chiefly to be planted.

TO plant a newe vineyard of a French vine, it behoooueth the Lord of the farme (if hee himselfe would see the fruite of his first labours) to haue care and consideration of the ground and of the yoong vineyarde, which he meaneth to repleniſh with yoong plants, as we haue said: for he may be well assured, that in a sturdie, stiffe, iuicie, and fat ground, the vine will beare much fruite, and requireth lesse to be inriched and helped, saue that it may after some two or three yeeres stand in neede to haue some little supplie of fresh and new earth, wherein pulse haue lately growen, or else some little reliefe at the foot, according to the time and nature of the country. In a grauelly and flintie ground, as suppose it might be in *Vaugirard* and *Venues*, where vines yeeld not so much increase, the earth must be the ofter tilled, dressed, and dunged for the purpose, but such manuring must bee with neates dung, and not with the dung of horse, swine, sheepe, or leistals, with all which all manner of grounde whatsoeuer, is made woorse, rather then amended: besides that such amends doth impaire the taste of wine, and maketh the vine sooner to growe olde and out of date, because the ouermuch trust that the workeman putteth in the heate of these, doth make him negligent, euen as it fareth

To put vnquencht lime to the rootes of vines.

with them which put vnquencht lime to the feete of plants, to make them beare the timelier fruit, as also for to make them the sooner ripe: seeing also that the workemen giuen to follow these courses, doe not vouchsafe thē the labour of digging about the feet, neither yet to turne vp and dig their vineyards diuers times, as the season shall fit and require, louing rather to put their masters to the charges of dung, yoong plants, and props, then that they would in a rainy & fit time take pains and digge them oft, yea rather spending the time of their labouring in tauerning, or else in wrangling with some of their neerest and deerest kinsfolkes, and that oftentimes for nothing: notwithstanding that the thing which is the principall and chiefest cause of the bringing foorth of wine as well commendable for goodnes, as abounding in store, is by bestowing as many dressings vpon the vine, as can be deuised, or any way affoorded.

The qualities of bad vinedressers.

Wherefore you may vndertake the planting of the French vine in the increase of the moone, when it is fowre or fiue daies olde, and that from about the beginning of December, or the middest of December, vntill the next frosts that followe, and then also according to their fiercenes and sharpnes, which if it fall out to be great, you shall surcease and giue ouer your worke, for to goe about to breake the ground, and lay open the earth, when it is taken and hardened by the frost, is but so much labour for you, and so much losse vnto the earth, because that vnder the cruft of the frost it inwardlie gathereth his strength together afresh, that afterward it may shew foorth his whole force and power in the spring. Wherefore in cold places it will bee better to plant your vine before the spring, as on the contrarie, in hot, drie, and vnwatered places in Autumne, to the ende that the raine which shall fall all winter, may supply the defect of other water, and that the rootes may the sooner take in the earth, and then and at that time principallie when nature ministreth most nourishment vnto the rootes.

My counsaile is, that in planting vines there be not any holes made, but rather little pits of a fadome and a halfe in widenes, and as much in depth, and this to be done in October if you mind to plant your vines in Februarie: or else in August, if you meane to plant your branches before winter.

The principall tooles of a vine dresser, are the mattocke to digge and turne ouer the ground withall, the forked picke axe to make pits withall, the spade, the weede forke to cast vp weedes withall, the rake, a little saw, a great hedging bill, a little hedging bill, to crop and cut off the wood, and to make yoong branches, and an augar to graft the vine withall.

The

The eighth Chapter.

Of the plant of the blacke vine.

THE naturall and reclaimed plante of the blacke vine groweth euery where: the wilde doth yeeld a sharpe & rough wine, such as that which groweth of grounde newly broken vp: but the vine that is intended to be for claret wine, is planted halfe of black & halfe of a white vine, and thereupon standeth in neede of another maner of dressing and seate, then the common vine doth: in like sort it is harder to order well, as requiring a very great care to be taken about it, because the wine which commeth thereof, is most pleasant to the eie, and of excellent taste, albeit that it doe not nourish so much.

Foure sorts of the blacke vine.

The yong plants of the blacke vine are the Morillion, the Samoyreau, the Negrier, and the Neraut: Besides which for to make claret wine, it is accustomed to adde the yong white vine plant. And for the mingling of them afterwarde to make a claret, it will in a manner suffice, if among three or fower plants or branches of the blacke there be one of the white.

The best of the blacke plants is the Morillion, the wood whereof being cut, sendeth forth a redder licour then any of the other: & the best of this sort is the short one, being iointed, within the bredth of euerie three fingers at the most, and growing more or lesse thicke according as the countrie is bearing and nourishing it: it beareth a well packt fruit, and hath a rounder leafe then any other of that sort.

There bee three sorts of the Morillion.

The other Morillion hath a long wood, iointed with ioints at the ende of euery foure fingers at the least, it is thicker and fuller of pith within: and in cutting also it is pithie, and so more loose: the barke, except that on the out side, is very red, & the leafe three furked after the manner of a goose foote, and like vnto the leafe of the fig tree. This second Morillion is otherwise called wilde Pinot; it beareth but few cleere grapes, and those also small, but the wine prooueth strong, yea better then that of the first Morillion.

The third Morillion called Beccane hath a blacke wood, and the fruit is like vnto it, in the blossome it maketh a great shew of wine, but when it commeth to ripenes, halfe the fruit and sometimes more falleth away: the branche is longest iointed of all the rest, and groweth more in length and height of wood then any of the other. This third kinde of Morillion is called *Le franc Morillon lampereau*: it ripeneth before the other vine plants, and yeeldeth good wine and as much as both the other.

There be three sorts of the Samoireau.

The Samoyreau is likewise found to bee of three sorts: the best of which branches is short iointed, and of a very hard wood: the other draweth very neere vnto it: The third sort is called indented Samoi-

reau, otherwise white Prunelat; and that because that his wood is whiter then the other: the wine it yeeldeth is of an vnpleasant taste, and it beareth but some yeeres: It hath furthermore this fault, that when the fruit should come to bee gathered, it is for the most part found fallen downe and shed vpon the earth.

The Negrier called red Prunelat hath a red barke, the woode is long iointed, of a thicke and grosse pitch, a leafe very much cut, and the grape great, cleere, very red and last ripe. Wherefore there needeth to plant but a few of these red plantes, for the colouring of the other blacke and fattning of them: it keepeth and defendeth it selfe from the frost, because it hath a high stocke.

Nerant Bourguignon. The Nerant called the black Bourguignon, hath the same nature with the white Bourguignon, a hard and very blacke wood, a fast and small pith, ioints one vpon another, an indifferent leafe and altogether round, the foote thereof being very red, the fruit very thicke & close standing one by another, as though it were a piled or packed thing: it saueth it selfe better from the frost then any other: there needeth not much to be planted of it, for it maketh a deepe colour, in such sort as that they which haue great store of it planted, make wine for woollen diers, and sell it very deere.

The small Rochell and Bourdelais of the same nature, are scarce to be found, because they are not any great bearers, neither yet good for any thing but making of arbours: the wood is red, as shall be said afterward in intreating of the white vine, except because it is found a little redder, and of a very vermillion colour where it is cut off.

The ninth Chapter.

Of the plants of the white vine.

Frumenteau. THE best yoong plante of the white vine is the Frumenteau, whose wood draweth towards a yellow colour: next vnto it is the Muscadet, which beareth a red wood: next vnto the Muscadet is the fine Pinet of *Anion*, which hath a wood drawing neere vnto a greene, and the fruit yellow as wax.

Muscadet.

Pinet of Anion.

Gouest. There is no yoong plant that is more apt to beare and indure the frost then the Gouest, which beareth the tawnie coloured wood, and is very thicke in his stocke, hauing a round leafe, and yeelding much fruit. There is another sort of Gouest which is called sage Gouest, so called because of the taste that it maketh in the mouth; it is smallie in request, notwithstanding that it yeeld great store of wine, and bee no more subiect to the frost then the other Gouest of the same sort.

The Bourguignon. The fruitfullest of all the white vine plants is that which is called the white Bourguignon or Mourlon, or else the Clozier, whose ioints are distant some two fingers and an halfe, and the fruit hauing a short

taile

taile is thicker and closer growne then the Rochelle, the leafe is very round, after the manner of Gouests: in continuance it defendeth it selfe from frosts.

That which the Parisians by reason of his operation doe call Foirard, and the Burgundians Cinquian, because it beareth but vpon the fifth part or quantitie, notwithstanding it bring forth very great fruit, and the wood thereof is drawing somewhat neere vnto a blew and as it were affoording much worke for the hedge bill, yet notwithstanding it is the least of all in value and goodues of iuice. *The Foirard.*

The Meslier, otherwise called the Saruinien, beareth much fruit: and for this cause manie giue themselues to plant it aboundantly. It hath a wood of colour betwixt a yellow and a red, and yeeldeth not very much to the frost: the leaues thereof are in a manner round. As concerning the differences of this kinde of vine branch, I find them to be three: the one is called the common Meslier, and this beareth great store of fruit: the other is called the grosse Meslier, as hauing his wood and fruit very grosse and great: and the third is called the franke Meslier, and this beareth a better and an opener fruit then the rest. *The Meslier.* *Three sorts of Meslier.*

The Bourdelais, otherwise named *Legrais*, is best to make arbours of in gardens: and yet some plant it because it is a great bearer of fruit: The wood thereof is red, and groser then any other yoong vine plant, and accordingly growing vp in greater height, craueth also a longer frame to run vpon: in like manner it yeeldeth a grosser fruit, and for a good plant, there is small neede of it, as there is also of the Rochelle, which hath a whiter wood then any of the blacke vines haue, and notwithstanding it is but little subiect to the frost: but howsoeuer, it ripeneth more slowly, and there must not be set aboue a quarter of a hundred of branches in a quarter, for it maketh a greene wine, notwithstanding that it giue it his sharpnes, and make it drie, and holding little of the liquor. *The Bourdelais.*

The tenth Chapter.

Of the manner of dressing of the vine as well that which is newly planted, as that which is growne vp and olde.

AFter that the plant hath beene dressed and ordered in such sort as hath alreadie beene said, and that you may perceiue that it beginneth to put forth wood the first yeere, and to take earth (which is a thing that should be knowne by mid May) when also you finde that his shoote is able to endure dressing, you must begin with it and cut it with a hedge bill: this may be done if it haue any shootes put forth more then one principall branch, that so by this meanes it may ioine all his force and strength together into one stocke or

leg, but in cutting it you must take heede and see that it bee done, as fare off from the dodie of the stocke as possibly may be, and not betwixt two earthes, least the body and trunke thereof might drie vp; so likewise you must see, not to let it enioie his wood, but to prune and loppe it, taking awaie such sprigges, as may growe vpon it, that so it may swell vp into a grosser and firmer stalke as is woont to bee practised in *Anion* and *Languedoc*. It must likewise bee obserued that the cutting of it in the olde of the moone, causeth the fleshie partes of the grapes to be more grosse and better fed: and that such cutting doth serue and profit much in vines growing in a grosse grounde, or in valleyes, as also in those vines which are giuen to be ouer ranke of wood. Afterward you must trim them, for the first dressing of a plant hath his first manner of worke & trauell. In trimming of them the seeond time, there must paines be taken about the ridges, least that weedes should ouergrow and get the head of the plants, and yet alway with this charge and care that in digging and stirring of the earth you do not wound the rootes of the vine, being assured that it alwaies more feareth and is hurt by the incounter of edge tooles then a man coulde thinke. And it must not onely be digd with a mattocke somewhat deepe, or forked pickaxe, but also the weedes which could not be wholie cast vp, must be turned in, beaten downe and broken in their roots: and first before this be done, there must good regard be taken euery where, what plants of branches or vndergrowth are dead since the first seating of them, which was in the end of December, or in the beginning of Ianuarie, and in their place to plant others in this time of Maie, if so be you be disposed: in which moneth, they are sometimes seene to growe and prosper, but and if you do not in this moneth make such supplie of those which are dead, then you shal staie till the beginning of December following, and you shall note very well the places where any are wanting, that so you may the better beare them in minde.

The second yeere you shall begin to giue the yoong plant, all such helpes of dressing and trimming as are thought meete for the vine that is alreadie growne, and hath beene planted a long time, the matter of propagating of it onely excepted: for the more paine and labour that is bestowed vpon this new and yoong plant in the newe of the moone, and in a time of mild and gentle raine, by so much alwaies it prooueth the better and the more precious.

If the third yeere when you digge and trimme them, there be any perceiuerance and shewe that the budde will likewise blossome and flower, you must nip it off with your naile.

To dung the yoong vine. In the same yeere, the plantes first planted must be dunged, and the furrowes made very cleane, and scowred of all manner of weeds, and by the same meanes there must bee dung laide vnto and spred about

about it, which that it may be the beſt and moſt agreeable, would be cowes dung, but for want thereof, the beſt next is horſe dung, and laſt ſwines dung, and where it cannot bee come by, then any ſuch as the poore workeman can get, except it bee marle, or freſh and blacke mould de which is the beſt helpe of all others for the vine: and yet the good vine dreſſer ſaith that the good vine of *Pierrotte* or *Griotte* craueth and loueth more paine, and leſſe manuring, that it may not bee conſtrained to caſt and let fall his fruite before the due time.

To prune and picke the new vine.

The fourth yeere likewiſe it muſt bee picked and freed with the hand in verie nimble and fine manner, and not be touched with anie iron inſtrument, to the taking away of the feeble and bad buds, the faire and beautifull being let alone, to ſee if they will proone as good as the yoong planted branch it ſelfe out of which they ſprung: and this muſt be done about May.

To dig and turne ouer the ground after the firſt manner and faſhion.

Therefore to ſpeake in generall of the tilling, ordering and dreſſing of the vine whether it be newe planted or old growne, the firſt labour to be beſtowed vpon it, is called the digging of it after the firſt faſhion, which others call the tanning of it, for by it the earth is made the more ſupple and tractable. In this peece of worke is contained the laying bare of the rootes of the principall ſtockes, and if the plant be growne high, then this muſt bee done in the calme and quiet time of March, according to the difference and alteration of places: for in this chill and cold place, which is ſubiect vnto froſts and blaſtings, as alſo in places ſeated in the vpper parts and tops of mountaines, this firſt order and faſhion of dreſſing them, muſt be done in the after ende of winter which is called mid-May.

To dig it after the ſecond manner and faſhion.

The ſecond faſhion of dreſſing and tilling the vine, is to weede, rake, and cut the ſame, as hath beene ſaide before, but before this worke come in hande, the plants muſt be fitted by being cut, that ſo they may bee able to continue in the place where they are planted, and not to be toſſed and carried to and fro with ſtrong and bluſtring windes.

Propagation the third manner and faſhion of vines dreſſing.

The thirde ſort of labour to be performed in dreſſing of vines, is to propagate them: but this worke fitteth them not, for the ſeconde yeere, no nor yet for the third yeere, except in ſome certaine places, and in ſuch vines as at that age are growne to very ſtrong wood.

The third yeere beſides the foreſaide dreſſings, if the plant bee ſtrong, and ſeated in a good ground, and that it hath put foorth faire and goodly woode, it is woont to be propagated betwixt the times of mid-Aprill, (and for ſurenes ſake) vnto mid-May: and then the propagated branches are buried in the places, where the ridges are broken and caſt downe, and that alike on both ſides, by which meanes is made the checker whereof *Columella* ſpeaketh.

In this ſame thirde yeere of the newe plant, according to the

ſtrength

strength of the woode which it hath put foorth, notwithstanding for the cause aboue mentioned, you haue with your naile nipped off such buds as were readie to blossome: yet according to the store that it hath of strong woode, after you haue cut it and amended the stocke, some begin to prop, vnderset, and binde it, for the bearing vp of the faire and iolly branches thereof, that they may not fall & lie flat vpon the grounde; which done, you must go ouer it with the second fashion of dressing of it: and yet before this be done, it must be raised, thrust vp and bound with his first band.

To propagate vines.

Vines are propagated in Aduent and Ianuarie after they haue beene cut, howbeit in places that are more chill, they be let alone till Februarie and March: and for the dooing heereof, they make choise of the faireſt branch, that they can find growne out of the stocke, cutting off the rest of the branches some two ioints from the stalke. Sometimes if they were of a faire stocke, some vse to take two of the faireſt branches of the chiefest plant, and lay them gently one after another lowe vnder foote, in a pit that shall haue beene made in the ridges, afterward they must be couered with earth: some doe laie the chiefe branch that is to be propagated very deepe, to the ende that the yeere after that it shall haue beene dressed, and the branches handsomely laide down in the earth without any offence or hurt done vnto them, it may abide the manuring with dung: for the chiefe and mother branch is not woont to be manured at any time, but rather it is to be vncouered and laid open at the foote in Ianuarie, and in the beginning of December, when the propagated branch is manured, to the ende it may the better take in the snowe and raine water which may make it to haue a thicke foote: In *Chablyes* and throughout all *Tonnerroies* and *Auuerroies*, they vse to propagate their vines in October, and in the beginning of December when they fall calme, in stonie and grauelly groundes. And from mid-May vnto mid-Aprill they propagate their vines in the saide countries, in their sandie grounds, and such as stand on a potters clay, and not sooner then that, because the water that would stand in the pits, woulde rot and kill the yoong branches newly planted, because of the frost there continued both in winter and in the spring.

The second dressing of the vine.

After August you must dresse your vine againe, whether it bee yoong or olde, binding it ouer againe by reason of his former yoong sprigs which might haue beene hurt by the first band and withered away, and now at this time it must haue two bands bestowed vpon it, though they vse not so to doe in *Anion* and *Tourraine*, because their dressing of their vines is diuers, and differing from that which we vse. We haue forgotten how that at mid-May, before the raising of the plant, it must bee stripped of his buds, and in doing heereof to bee heedie and warie, that the principall sprigs which shall bee about to

blossome,

blossome, be not hurt or touched, except there be too manie of them vpon one stocke.

The third dressing of the vine.

For the third dressing of the vine, which shal be in August, it is wont to be trimmed and tied againe, after which in a gentle and calme weather, after some raine hath fallen, the earth must be stird with the pick-axe, verie gently, and softly, and the weeds turned vnderneath. And sometimes it is weeded, if the yeere haue beene rainy. Besides which ordinarie dressings, you must be further aduertised that indeed it is requisite neuer to goe without a spade in your hand, whiles you are amongst vines, if so be that you would haue them to prosper, and that this busines be not posted ouer to rascally fellowes or maides, especially the propagating of them, and the stripping of them of their buds. To conclude and shut vp the whole matter of the dressing of the vine set downe in his diuers sorts heere before, it is to be vnderstood in generall, that in the moneth of December and Ianuarie, the new propagated plant must be cut, & the old one of the yeere past looked vnto, in laying bare the foote of the old, & dressing anewe the propagated one, and manuring of it, if there bee any neede. In March and April it must be cut, and moe new plants made at the same time, also some lay bare the vines, and manure such as haue neede: within a shorte time after, they must be laide bare againe, as also couered again afterward; before they blossome and flowre, they must be stripped of their buds with your hand, especially whiles the branches shall appeere so tender, as that they will scarce abide touching with ones finger, for feare of spoiling and breaking off; then shortly afterwardes to prop them vp with railes and staies, to tie them with soft and nimble bandes, and of all this while, not to forget to giue them their seuerall orders, such as haue beene mentioned and spoken of before.

The conclusion of the three sorts of dressing due to the vine.

The eleuenth Chapter.

Of the manner of grafting the vine.

To graft vines.

THe vine in this countrie is seldome grafted, notwithstanding wee will speake a worde or two of it, hauing alredie in the thirde booke handled this point more largely, where we haue spoken of all the sorts and properties of grafting. The vine then may be grafted either vpon it selfe or vpon other trees: The vine grafted vpon a vine, is after two manner of waies, the one in the stocke, the other in the branch. To graft a vine in the stocke, you must make choise of a grosse and firme one, and such as is full of moisture, not being too olde, cutting it close by the grounde, or which is better a foote within ground. The grastes, that you meane to graft, must be round, firme, full of little eies and set one neere vnto another, and cut in the decrease of the moone, and taken from the stocke and foote of

the

the vine. The maner of grafting of them, is to insert and set the graf into the body of the vine about two fingers deepe. And you shall doe the like, if you would graft the vine vpon the branches of the vine.

At *Auxerrois* and especially at *Chablies*, they haue another maner of grafting besides the former and they vse it much; it is in this sort: They cut off all the green buds and sprigs from the stock, except only the shoot or branch which was put forth the yeere before, which they leaue of the length of some two foote. This branch they cleaue the breadth of two or three fingers, they hollow and also make fit the cleft within on euery side, to the end that the graft of the brãch being made cornered, may fit the said cleft the better, and in this cleft they put the graft (consisting both of old and new wood) made sharpe at the end, which shall go into the cleft with his pith, shaped in maner of a wedge, ouer which they cause the said clouen branch so to close and come together in such proportion as that the rindes of euery part of the cleft may ioin, after which they binde it gently without straiting of it much, with a clouen ozier hauing the woody part taken away, in such sort as that there remaine almost nothing but the very pilling, that so it may be the softer to tie them and the sooner rotten. This done they lay the said graft in the earth about halfe a foote, and couer it with soft earth. Neither doe they forget to picke off the buds or sprigs that may grow vpon the same stocke that yeere, to the end there may be no attraction or rising of the sap, for the putting foorth and feeding of any thing else but the yoong graft, which for the first yeere, groweth for the most part about two or three foot: Then at the end of two yeeres they propagate the stocke and the graft, which by such meanes will put foorth many new shootes. The like may be practised in one of the twigs putting vp at the foote of the stocke.

The vine is grafted after the same maner vpon trees, as cherry trees, plum trees and others such like, and thereof *Columella* intreateth very largely in his Elme groue, whereunto I will referre you, seeing in this our country of France there is account or estimation made of the grafting of vines.

The twelfth Chapter.

Of certaine petie practises and experiments touching and concerning the vine.

Abundance of grapes.

YOu shall haue your vines to beare abundantly and withall a very good and durable wine, if your vine dresser weare a garland of iuie at such time as he croppeth and cutteth your vines, if we may beleeue *Palladius*: but indeed the surest way is if there be cast into the pit with it when it is planted, the acorns of okes braied, and ground fetches.

You

You shall perceiue before the vintage, that there will be great abundance of wines, if whiles you plucke very lightly with your fingers, one grape off from the bunch there follow and issue forth some licour after it. In like manner a plentifull harueſt of wheate, doth prognosticate a plentifull vintage of wine. Raines in the spring time doe foreshew that the wines comming after will be strong and mighty. *Abundance of wine.*

Men of old and ancient times past haue highly esteemed of the treacle vine, in respect of the great vertue which his wine hath against the bitings of serpents and other venemous beasts: and not onely the wine but also his leaues stamped and applied in forme of a cataplasme vnto the greeued part, as also the ashes of the branches. The manner of preparing of it, is to cleaue three or fower fingers of the neather end of the branch, which you meane to plant: and after that you haue taken out the pith, you must put in steede of the pith some quantitie of treacle: afterward you must couer it and wrap it in paper, and set the clouen end into the ground: Some others not contented with this course, doe powre treacle vpon the rootes of the vine. *The treacle vine.*

A vine may after the same manner be made laxatiue, as, if in the clouen branch you put some soluble purge, or if the roots thereof be watered with some laxatiue things. Note notwithstanding that the branch, taken from the treacle or laxatiue vine to be planted, will not hold the properties of the said vine whereof it was gathered: because the treacle and laxatiue drugs, doe loose their force and power in the vine in processe of time. *The laxatiue vine.*

Your vine will beare a wine apt to procure sleepe, if after the manner vsed in your treacle vine, you put Opium, or the iuice of mandrakes, in the cleft which you shall haue made in the bodie of the vine. *To plant a vine whose wine shall procure sleepe.*

To make grapes to grow without kernels, take the pith out of the branch that you meane to plant, and yet not from the one end to the other, but onely so much as is to stand within the ground, afterward wrap it in wet paper, or graft it in an onion (for the onion helpeth the branch very well to grow) and so plant it. There are some that doe aduise to water it oft with water wherein hath laine to steepe some Beniouin, and that so long as till it hath put forth some buds. *Grapes without kernels.*

To haue grapes in the spring, you must graft the branch of a black vine vpon a cherrie tree. *Grapes in the spring.*

To cause a vine to bud betimes, you must rub the eies of the branch newly cut, with water wherein hath been steeped Sal nitrum, and within eight daies after it will bud. *To make a vine to bud earlie.*

To make your clusters to consist partly of white, & partly of black grapes, you must take two diuers branches, differing the one from the other, and cleaue them in the midst hauing regarde that the cleft run *Clusters bearing both red and white grapes.*

not

not through any of their eies, as also that there be not any part of their pith lost, then afterward you must ioine them together, & that in such sort as that their eies may bee neere one vnto another; and that in such sort as that they may touch, & of two, there may become but one onely: afterward the branches must be well tied together with paper, and couer them with clammie earth, or with the leaues of the heades of onions, and to plant them in this order, and to water them often, so long as vntill the buds doe put forth.

To keepe grapes. To keepe grapes all winter long, you must cut them downe after the full moone in a faire and calme season, about eight a clocke in the morning when the deaw is vanisht, and afterward dip them in the sea water ouer head and eares, or else in salt brine mixt with a little boiling wine, laying them afterward vpon barlie straw. Some put them in a vessell full of new wine; or else in a vessell close couered and luted: Other some doe keepe them in honie; others annoint them ouer with the iuice of purslaine: others keepe them in oate chaffe.

The thirteenth Chapter.

Of the diseases of the vine, and the remedies for the same.

THE vine is somtimes troubled with violence of windes, or else by the vnwarines of the vine dresser, wounding the same with his pickaxe: in these cases you must couer the bruised or hurt place, with goates dung or sheepes dung, mingled amongst very choise earth, and cast the ground round about them oftentimes with the picke axe.

To gard the vine from the frost. The vines will not be spoiled with the frost, if in diuers places amongst them there be made heapes of drie dung or chaffe, and when you perceiue that frostes are towarde, to set the same on fire, for the smoke rising thereof, will breake the force of the frost: notwithstanding if it come to passe that the vine be alreadie spoiled, and the fruit destroied, it must bee cut off very short that so his strength may yet continue in the remainder: for the yeere following it will beare twise so much fruit.

The blasting of vines. The vine will not be blasted, if when it is about to bud, you cut it as late as it may; for this late cutting of it, will make it to bee in blossome at such time, as the sunne is in his greatest and most feruent heate.

Against myst and foge. To breake off such mistes and fogs as are alreadie gathered in the aire, for feare they should fall vpon the vines, you must make a smoke round about the vineyard, with the dung of goates kindled and set on fire. Against such fogs as haue already hurt the vines, you must stamp the rootes or leaues of wilde cucumbers, or of coloquintida, and lay them

them to steepe in water, and with the same to water the vines, after the mists. Some say that if there be many bay trees planted in the vineyard, that then all the maliciousnes of the mists will fall vpon their boughes.

Some say that the barren vine will become fruitfull, if the bodie thereof be watered with man or womans water that hath beene made long before, and dropt vpon the vine stocke by little and little, and if therewithall presently after, it be laid about with dung mixed with earth, and this cure must be done in autumne. *To make the barren vine fruitfull.*

Vines are perceiued to want moisture, when their leaues turne very red: this disease must be holpen by watering them with sea water, or man or womans vrine. *The withered vine.*

The vine sometimes powreth forth great store of teares, whereupon it commeth to passe that it looseth his force altogether: The remedie is to breake the barke of the vine vpon the bodie thereof, and to annoint the wound with oyle boiled to the halfe: or else with the lees of oyle not salted: and afterward to water it with the strongest vineger that may possibly be found. *Remedies for the weeping of the vine.*

The vine sometimes falleth into such a scattering disease as that it letteth his grapes fall off: the markes and signes thereof are when the leaues thereof become white and drie, and the branch falleth broad, lenow, and soft: this is to be remedied with ashes beaten and mixt with strong vineger, and rubde about the foote of the vine, and by watering all that is round about the stocke. *The scattering vine.*

The vine shooting out into ouer many branches, must be cut off very short, and if for all this it giue not ouer, it must be barred at the rootes, and riuer grauell laide rounde about the stocke, together with a fewe ashes, or else some stones, for to coole the same. *The vine that is too full of branches.*

If the grapes wither and drie away as they hang vpon the vine, you must take away such as are alreadie withered and water the rest with vineger and ashes of vine branches: or for the more certaintie, water the foote of the vine with strong vrine which hath stoode a long time. *Withering grapes.*

There are some vines that do rot the fruite which they haue newly brought foorth, before such time as they become fully growne and ripe: to cure this mischeefe you must put old ashes vnto their rootes, or grauell, or else barley meale mixt with the seed of purcelane, about the stocke and bodie. *The rotting of grapes.*

To preuent that the byting or breath of oxen and kine (which are verie hurtfull vnto vines) may not do them any hurt at all: you must water the foote of euery vine stocke, with water wherein the hides of oxen or kine, or some such other beasts haue beene steept and mollified, for oxen and kine haue the stench of this water in such detestation, as that they will not abide to come neere vnto the vine. *The byting of the oxe or cow.*

Caterpillers

Against caterpillers and lyce. Caterpillers, lice, and such other small vermine will not hurt the bud or the leafe of the vine, if the hooke or hedgebill, wherewith you prune & cut away the superfluous boughes of your vine be annointed ouer with the bloud of a male goate, or the fat of an asse, or of a beare, or with the oile wherein caterpillers, or braied garlicke haue bin boiled, or if you annoint and rub them with the purse and sheath of a badgers stones after that it hath beene ground.

Against locusts. To driue away little noisome beasts which are called locusts, from the vines, you must procure smoakes to bee raised amongst the vines of the dung of oxen, or Galbanum, or of some olde shoesoles, or of harts-horne, or of womans haire, or for to plant amongst the saide plants some pionie.

Against the mouselike beast called a shrew. To preserue the vines from being annoied of the small beasts called shrewes, you must cut them in the night when the moone is in the signe Leo, Scorpio, Sagittarius, or Taurus, or else you must water your vines with water wherein haue beene steeped in the sunne for the space of ten daies, ten riuer or sea craie fishes.

Pismires. Pismires fretting in sunder the woode of the vine, euen vnto the marrow, wil not hurt the same at al, if you annoint and rub the stocke with the dung of kine or grease of asses.

That Coleworts are hurtfull to vines. The baie tree, hasell tree, and colewoorts do likewise hurt vines very much if they be planted in the same grounde, and especially the colewoorts, which the vine hateth aboue all the rest, there being a naturall and deadly contrarietie betwixt these two plants, in so much as that coolewoorts are a preseruatiue from drunkennes, as wee shall further declare by and by, wherefore the good vine dresser shall neuer sowe or plant any colewoorts, baie trees, or hazell, in his garden of vines.

The fourteenth Chapter.

Of the manner of gathering grapes, or of vintage.

The gathering of the fruit of the vine. THe last paine and labour to be taken with the vine is the gathering of the fruit, which may not be attempted by the vine dresser, vntill the grapes bee ripe, which is manifestly perceiued by their growing blacke, as also by hauing their kernels blacke and all bare, as being altogither separated frō the flesh or pulpe of the grape, if so be that there be any pressing of the grapes. Or else, if after taking away a kernell or two out of a grape, you finde that the rōome whereout they were taken, doth not lessen, but abideth as large as it was, not being filled vp by the other kernels comming in place. You must gather them in faire and calme weather, not in rainie weather, nor when the grapes are full of deaw, but when it is walked and gone, and the aire

To know when greapes are ripe.

The time and houre of gathering grapes.

aire is become somewhat hot rather then colde, for so the wine will be the better, and indure good a longer time, yea (if it be possible) in the waine of the moone, and when it is vnder the earth; at the least after that the moone is eighteene or twentie daies old, for so the wines will be stronger, and last better, then if the grapes should be gathered in the newe of the moone. It is true that before the gathering of them you must haue all the furniture necessarie thereto in readines, as baskets and vessels to gather them into, great hedge bils, and small ones very sharpe, caske well hooped, and made very cleane by washing, cleane fats, and euery way well fitted, tubs, great and small stands, well pitched and fitted for the purpose, and presses aired, scoured, washt, and furnished with their necessary implements.

The duties of grape gatherers.

The grape gatherers shall doe their indeuour to put asunder the leanes, greene, sowre, withered, and rotten grapes, from those that are ripe and whole, to the end that the wine may not be indamaged and made woorse then it woulde be. And for the making of perfect good and daintie wine, to chuse out the finest of the grapes from amongst the common and grosse ones, as also the white from the black, not mingling the two best sorts together of any kinde, as if there shoulde be a mingling of the well tasted grape with those which are sweete: or of the white which is strong, with an other which is weake and of a sad colour. The gathered grapes must bee left in the grounde at the least for a day or two, and that vncouered (prouided that it raine not) for so they will become better, in as much as both the sunne, the deawe, and earth, doe refine and purifie them, as taking from them whatsoeuer bad and vnprofitable moisture that is in them; then after that to leaue them in the fat, but not aboue two daies, after which time, the next morning they must be troden out equallie, and in such sort, as that there may not any of the grapes of the clusters remaine whole. It is true that the treaders must not goe into the fat before their feete be well washed, and their whole bodies be made verie cleane, and couered with a shirt, to the ende that their sweate may not hurt the wine, and they must likewise abstaine from eating therein.

Treaders of grapes.

What time wines must worke together after they be troden.

The grapes being troden, the wine or liquor must be let boile and worke together for the space of fower and twentie howres, more or lesse, according as it is purposed that the wine shoulde be; for the longer it worketh together, the grosser, deeper coloured, and mightier it will be: as the lesse it worketh together, the finer, more thinne, subtile, and delicate it will be. Likewise, if you would haue a strong and mightie wine, you must in this time of the working couer your fat with some couer, that so the vapor thereof may not breath out, or his force and strength spend.

The drosse and grosse parts of the grapes that are troden, which shall haue some iuice and liquor yet left & remaining in them, shall be

carried to the presse for to be pressed out, and there it shall abide three or fower strokes: It is true that this which is thus pressed out will make the other lesse pleasant, and therefore it will be best to put that which floweth and runneth out of the owne accord by treading, by it selfe, and the other which is pressed out by it selfe. But howsoeuer you bestowe them, the caske into which you shall put them must not bee quite fild vp: but haue some space left emptie for the boiling vp of the newe wine, and the casting foorth of such scum and froth as shall rise out of it with ease: It is true that you must be filling vp of it euery day, so long as till it appeere that the wine hath rid it selfe from all his scum and froth. And yet as then it may not be bunged vp, but rather some stone or wispe of haie laide vpon the bung hole: and after when it shalll manifestly appeere that the wine is throughly setled and pacified, then you may bung the caske. The caske must bee all this while either in the open aire or else in some barne that is well aired: for it is not to be laide into any celler vnder ground, before such time as the new wine haue vtterly ceased and cast off his rage. And withall, you must beware not to fill vp the wine alreadie cooled and turned vp with wine which is yet hot and boiling, for be it either white or claret, it will make it fat.

Vessels to put wine in.

The couching of the wine in the cellar. What manner of cellar must be prouided. Wine apt to be infected.

After that the wine is throughly setled, and ceaseth to boile and worke any more, it may bee carried downe into some cellar, which must stand vpon the North, paued with grauell or drie earth, and free and farre off from all ill smels, horse stables, sinkes, bathes, and marshie places: not hauing any thing shut vp and kept in it which is of euill sinell, as cheese, garlicke, onions, oyles, or hides: for there is nothing more subiect to be infected then wine, especially that which is newe.

Your vessels must bee so ranked in order, as that they touch not one an other: hauing some distance left betwixt them, that so they may the more easily be looked vnto all the yeere. The vessels to auoid the venting which commonly hapneth vnto wine, must haue the bunghole very well stopt with grauell, and not stird or touched at any time, vntill the time to drinke the wine be come: If vpon some happe the good housholder, presently, or a little after the time of vintage, be not minded to sell some part of his wine, according as opportunitie may serue for his profite: Notwithstanding I finde that men in times past (to the ende they might haue a purer, neater, and more subtile wine, after that the wine hath purged and cast foorth his scum, ceasing to boile) did vse to put it into new vessels, that is to say, did change it out of one vessell into an other, hauing this opinion, that wine separated from his lees, doth make a more subtile kinde of mother in winter, and becommeth more delicate and durable, and refineth it selfe farre better in the spring time, then it woulde haue done vpon the first lees: as also that when wine standeth long vpon the first lees, which

which are thicke and sowre it easily looseth his naturall verdure, and getteth a sharpe and vnpleasant taste, and a thicke substance. They did furthermore obserue the time and the course of the heauens: for they neuer drew wine out of one vessell into an other, but when the northren winde did blow, when the moone was either newe or vnder the earth: and when as roses had put foorth their first flowers, and the vine his buds. And *Hesiodus* following this custome, doth counsell men that in changing wine out of one vessell into an other, they shoulde separate the wine which is the vppermost in the vessell from that which draweth somewhat neere vnto the lees, and both of them from that which is in the midst, because that the wine which is next vnto the bunghole, is euaporated much, as being next vnto the aire: and that which is in the bottome corrupteth very easily, as being nere vnto the lees: but contrarily that which is in the midst is most durable and conuenient for nourishment. Such custome vsed by those of auncient time, is not obserued now adaies, especially in the countries of France, and therefore we will not say any thing of this changing of wine out of one vessell into another.

The wine in the midst of the vessell is the best.

The fifteenth Chapter.

Of the time of pearsing the vessels and tasting the wine and how to draw it without causing it to take winde.

MEN of ancient time did attribute so much vnto the influence of the starres, as that they did neuer pearse their vessels either for tasting or drinking of their wine, at the rising of the sunne or the moone, hauing this opinion, that at such times the wine doth moue, and therfore ought not in any case to be touched or dealt withall. We doe not so curiously prie into the matter, but we pearse our vessels at all such times, and as oft, as either necessitie or commoditie will perswade and doth require. Notwithstanding in pearcing of them you must haue this wisdome, as to beware that they take as little winde as possibly may be, and when there is but a very little drawne of it, you must presently fill vp the vessell againe for feare of the spending of it selfe. As concerning the tasting of wine, whether it be to sell or drinke, or if it be to finde out whether there be any that is in danger to be turned, some doe giue counsell, that it is good to make the assaie at such time as the northeast winde bloweth, because at such times it is more pure and neate then at others: others thinke it best when the South winde bloweth, because this winde stirreth and mooueth the wine greatly, and sheweth it in deede to be the same that it is: but howsoeuer it is, it is not good to taste the wine fasting: for before meat wine hath but a dull and dead taste: neither yet after that you haue

The time to pearse wines according to those of auncient time.

The weie to pearce wines.

To taste wine.

At what time and how wine is to be tasted.

drunke of other wine : nor after you haue got a full bellie. Furthermore the assater of wines must not haue eaten any sower thing, salt, bitter, or any other thing, which may alter his taste, but must onely haue eaten something without hauing digested it.

To giue vent vnto wine

When our householder is disposed to pearse his wine, and that he meaneth to draw it by a little and a little for his owne drinking, and leisurely without giuing of it any vent, he must pearse it in the vpper part of the vessell with a pearser, and put into the hole the quill of a feather open on both sides, and as long as three fingers are broad: and that vpon the top of that end of the quill which shall be vpward, hee put some cotten, couering the said cotten afterward with halfe a wall-nut shell, and vpon it againe some ashes or wet lime laid : and when he hath done all this, let him set the tap in the vessell : and by this meanes he shall draw his wine easily, and vnto the lees without giuing of it any vent.

The sixteenth Chapter.

Certaine small things to be obserued concerning wine.

WHen the case so standeth, as that the vintage prooueth small, and that the Lord of the farme in respect of sparing, desireth to make a small wine, wherewith hee woulde passe ouer the requisite prouision of his house in steed of a better and stronger wine, he shall make it in this sort after the manner of a rappe vine. In the time of vintage he shall cause to be taken a good quantitie of the knots of the grapes called pinots and sarminians when they are very ripe and haue a hard skin, and of these knots alone and whole, without bursting of them, he shall cause a vessell to be filled neere full, which he shall cause to be set downe vpon one of the ends, and afterwarde cause it to be taken downe againe, and set vpon a cantling, and so shall cause to be turned into it two pintes of good wine that is olde and mightie. This being done, he shall cause there to be water boiled, whereof when it is hot, he shall goe forwarde and proceede to the filling vp of the vessell, and so shall leaue it vntill his small wine haue done boiling, and be become throughly cold (which is somtimes sooner, sometimes later, according as the yeere prooueth hot or colde) whereunto he may then put a tap to draw out of the same, and to begin to drinke thereof. And as oft as he draweth out thereof, hee shall fill vp his vessell againe with so much cold water, as he drew forth of his wine, and so by that meanes keepe his vessell alwaies full. And by this meanes his saide small wine will passe ouer the greatest part of the yeere in one state of goodnes. And when this small wine shall begin to grow too weake, he shall draw out thereof a quart, and put in place

thereof

thereof as much good old wine. And in drinking of it he shall hold on (if so it seeme good vnto him) his putting in of water as before, except that it be found to weake to put in any more wine: and then he shall make his worke folkes to drinke of it, filling it vp still daily with water as before. The colour of this small wine is verie pleasant and faire.

Of the boyling ouer of the new wine, whiles it is in working.

The way to keepe new wine that it shedde not in the time of the boiling in the vessell, is to put aboue the hole at which the newe wine commeth foorth, a wreath of penny-royall, calamint, or organy: or else you shall annoint the edges of the sarde hole within with milke or cheese made of cowes milke, or else you shall cast into the vessell a morsell of cheese, for it will keepe in the great heate of the newe wine.

How new wine is purged

To cause new wine to be quickly purged, you must put in fifteene quarts of newe wine halfe a pinte of vineger, and within three daies it will be fined.

To haue newe wine all the yeere long.

If you desire to haue newe wine all the yeere, you must take the new wine which distilleth by it selfe from the grapes before they bee troden, and put it the same daie in a vessell pitched within and without, in such sort, as that the vessell may bee halfe full, and very well stopt with plaister aboue, and thus the newe wine will continue a long time in his sweetenes: and yet it will bee kept thus a great while longer, if you put the vessell in a well or riuer, couered with some little skinne, and so leaue it there thirtie daies: for in not hauing boiled, it will continue alwaies sweete, and will be preserued by the heate of the pitch: or else it will be good to bruise the grapes very gently, without much straining of them, and the newe wine which shall issue out of them by that meanes will keepe new a long time: Other some do lay their vessell filled with sweete wine in moist grauell: some doe pitch their vessels within and without, and so lay it onely out of the water: other some doe couer it with the drosse of the wine presse, and afterward to heape vpon it moist grauell.

To know if there be any water in the wine.

To know if there be any water either in new wine or other, take a withered rush, and cast it into the wine, so if there be any water in it, it will draw thereof vnto it: or else take rawe and wilde peares, and cutting them in the midst make them cleane: or if you will, take mulberries and cast them into the wine, for if they swim aloft it is a neat wine, but and if they sinke there is water therein. Some do annoint a reed, or a peece of woode, or paper, haie, or some other little bundle of herbes, or of straw, which they drie, and put into the wine, and after drawing them out, they take triall and knowledge thereof: for if the wine haue water in it, drops thereof will gather vnto the oile. Others cast vnquencht lime into the wine, and if there be any water amongst the wine, the lime will dissolue and melt, whereas if the wine be neate

it will binde and fasten the lime together. Some take of the wine and powre it in a frying pan wherein there is boiling oile, and if there bee any water it will make a great noise, and will boile ragiously: againe, others cast an egge into the wine, for if the egge descend and sinke downe, then there is water in the wine, but and if it doe not descend, then there is no water in it.

The waie to correct the ouermuch waterishnes of wine.

If the yeere fall out rainie, and that it happen that the grapes hanging yet vpon the vine be much wet, or if it fall out that after the time of gathering them, there fall some great store of raine, so as that the grapes are watered and wet more a great deale then is needfull, they must of necessitie be troden, and then if you perceiue the new wine comming of that vintage to haue small strength in it (which knowledge you may come by in tasting it after that the wine shall be put vp into the vessels, and shall first begin to boyle and worke in them) it must presently be changed and drawne out into another vessell: for so all the waterie parts that are in it, will stay behinde in the bottome: and for as much as the wine will yet stand charged, you shall put to euery fifteene quarters of wine a pinte and a halfe of salt. Others doe boile the wine vpon the fire, so long as till the third part be consumed, and the rest they vse foure yeeres after.

To recouer the new wine which beginneth to sowre.

If it should happen that the new wine prepared in such sort as we haue spoken of, after long time should begin to sowre and turne eager: to meete with this mischiefe, you must cast to steepe therein, a pinte of grapes boiled, till they be full swollen, afterward straining them out into an eight part of new wine; or else cause the said newe wine to run through riuer grauell.

To cause new wine to settle quickly.

If you would haue new wine setled in fowre and twentie howers, without boyling of it, that so you might presently vse it, fill a vessell with the small chips of the wood called in French *Sayette*, which the inhabitants of *Champagne* doe call *Buchettes*; vpon these chips cast your new wine, and within the foresaid fower and twentie howers, you shall haue a setled wine without hauing cast any scum. The inhabitants of *Champagne*, especially the townes men of *Troye*, vse this receit not onely to cause wine to settle quickly, but also to make rappe wine withall.

To separate water from wine.

If it come to passe that wine haue water in it, and that we finde it to be so, by the meanes lately laid downe: to separate then this water from this wine, you must put into the vessell of wine melted allome, and after stopping the mouth of the said vessell with a spoonge drenched in oile, to turne the mouth of the vessell so stopped downeward, and so the water onely will come forth: Or else cause a vessell of iuie wood to be made, and put therein such quantitie of wine as it will be able to hold, the water will come forth presently, and the wine will abide pure and neate.

You

You shall make an odoriferous and sweete smelling wine in this manner. Take a few myrtle berries, drie and bray the same and put them in a little barrell of wine, and letting them so rest for ten daies, afterward open the barrell and vse the wine. You shall worke the like effect, if you take the blossoms of the grapes (those especially which grow vpon the shrubbie vines) when the vine is in flower, and cast them into the vessell of wine, the brims of the wine vessell being rubd ouer with the leaues of the pine and cypres tree, and after cast into the wine, for they make it very odoriferous: or more easily, you must hang therein an orenge, or a pome citron which is not verie grosse and thicke, and pricke it full of cloues, and that in such sort as that it may not touch the wine, and after shut vp the vessell close: or else infuse and steepe in Aqua vitæ the simples or such matter as you would haue your wine to smell of, and afterward straining the same Aqua vitæ, to put it into the vessell amongst the wine. *To make an odoriferous wine.*

To make red wine of white, and contrariwise of red wine white; Take common salt eight drams and put it in fiue pints of red wine: or else powre into red wine some whay with the ashes of the branches of the white vine, and turne and rowle it well for the space of fortie daies, then let it rest and it will become white wine. On the contrarie, white wine will become red, if you put into it the ashes of the branches of the red vine: or if you cast into white wine the powder of hony boiled to the hardnes of a stone, and then made into powder, changing it from one vessell into an other to mingle them together: you may doe this the more easily if you cast into the white wine the dried or greene rootes of all the sorts of sorrell. *To make whit wine red, and red wine white.*

To make clarret wine, beate the whites of three egs in a dish, vntill the froath arise, and adde thereto some white salt and as much wine, beat them all together againe vntill such time as that they become very white, afterward fill vp the platter with wine, and put all into the vessell of wine and keepe it. *To make claret wine.*

You shall make a wine that will beare great store of water, if drying the rootes of hollihockes you shaue and scrape them, casting the saide shauings into the wine, which afterwarde you must rowle and mingle together very carefully. *Wine bearing great store of water.*

Wine will haue no flower, if you put in the wine the flowers of the vine gathered and dried, or the meale of fetches, changing the wine into another vessell, when the meale and the flowers are setled downe to the bottome. *Wine that flowreth not.*

You shall make the boiled wine called cute, if you boile new wine that is good, louely, and very sweete, vntill the third part therof be consumed, and then when it is growne cold, you must put it into vessels for your vse. *Boyled wine.*

To make sweete wine that will so continue all the yeere, you must *To continue wine sweet, all the yeere long.*

gather your grapes whole, and let them lie spred three daies in the sunne, and tread them the fourth about noone. The sweet wine, that is to say, the very lcour which shall run out into the fat, before the drosse substance come vnder the presse, must be taken away, be put by it selfe, and boiled, and after it is boiled, put to nineteene quartes of it an ounce of Ireos or corne flag well braied, and straine this wine without the lees: which being done it will continue sweete, firme and wholsome for the bodie.

Grekish wine. To make wine like vnto greekish wine, you shall gather from the vines early grapes very ripe, and those you shall drie in the sunne three daies, and tread them out in the fourth, and the wine thus made you shall put in a vessell, hauing care to cause it to purge and cast out the filth within it, as also his lees, at such time as it shall boile. And the fifth day after that it shall be purged, you shall put into it two pounds of reboiled salt, or very small beaten salt, or at the least one pound in eighteene quartes and a halfe of wine.

To make a weake and feeble wine to become an excellent good wine: Take a handfull of the leaues of *Tota bona*, and a handfull of fennell and smallage seede, and cast them into the vessell.

Good houshold wine. To make good houshold wine, you must cast how much the tenth part of the wine commeth to which you haue drawen or made in one day, and to cast as much spring water vpon the drosse, out of which the said wine was gathered and pressed: with this you must mingle the scum taken off from the wine in the boiling or seething of it, as also the lees remaining in the bottome of the treading fat, which shall be let lie and steepe in the same a whole night: the day following you must tread them all together with your feete, and afterwarde presse them out: then you must put that which shall come foorth into two vessels, and stop it vp when it hath boyled and purged.

To cause troubled wines to settle. To cause trouled wines and such as are full of lees to settle, powre into thirtie quartes of wine, halfe a pinte of the lees of oile boiled till the third part be wasted, and the wines will settle by and by, and returne vnto their former estate: or else, which is better and more easie, cast into the wine vessell the whites of six or seauen egs, and stirre them together very well with a sticke.

The taking away of the strength of the wine. You may take away the force and strength of wine, if you put into it some iuice of colewoorts, which you shall haue bruised before hand, and thereupon drawne out the iuice.

To drinke much wine and yet not to be drunke. To drinke great store of wine and not to be drunke, you must eate of the rosted lungs of a goate: Or otherwise, eate sixe or seuen bitter almonds fasting: Or otherwise, eate raw colewoorts before you drinke, and you shall not become drunke. Some say that a great drinker shall neuer become drunke, if he weare a wreath of *Amaracus* about his head: Or, if at his first draught he repeate this verse of *Homer*:

mers : *Iupiter his alta sonuit clementer ab Ida* : which is to say, *Iupiter* was heard speaking in a soft and gentle manner from the high mount of Ida.

To prouoke hatred of wine, you must take the thin licour which droppeth from the branches after they be cut, and put it in the drunken mans glasse against such time as he shall drinke, but so as that he know not any thing of it, and thereupon his appetite and lust to drinke wine will depart quite away from him : or else, cause him to drinke with white wine the blossomes of rie, gathered at such time as the rie bloometh : or else, take three or foure eeles alue, and let them lie in wine till they die, and afterward cause this wine to be drunke off by such as are giuen to be drunke : Or else, take a greene frog, which is ordinarily found in fresh springs, and let the same lie in wine till she die. Otherwise, marke diligently where the owle haunteth, that so you may get some of her egs : frie them and giue them the drunken gallant to eate. *To hate wine.*

To make drunken men to become sober, you must make them eate colewoorts and some manner of confections made of honie : Or else drinke great draughts of vineger. *To make them which are drunke sober.*

To be the meanes that wine shall not become strong, take a peece of salt larde, & tie it to the hole by which you turne vp your wine into the vessell, with so strong a threed as may beare vp the larde, which larde must hang in such manner as that it may but touch the vppermost part of the wine. And this will keepe the wine from becomming strong, through his fatnes and saltnesse, which hinder the separating and refining of the same, which is the thing that giueth strength vnto the wine. *To cause wine that it shall not become strong.*

To cause new wine to become old by and by : take bitter almonds and melilot, of each an ounce, of licorice three ounces, of the flowers of lauander as much, of aloes hepaticke two ounces, bray them all and tie them together in a linnen cloth, and so sinke them in the wine. *To make old wine of new.*

You shall finde out and know whether the wine will keepe long or not after this manner : when the wine shall bee turned vp, you must within a certaine time after change it into another vessell, leauing the lees behinde in the first vessell, which must be very well stopt on euerie side, and then afterward you must diligently trie out and see whether the lees do change and begin to get any ill smell or no, or whether they breed any gnats or such other little wilde beasts, and if you perceiue that nothing of all these falleth out, then you need not feare the turning of your wine : but if it fall out otherwise, you may assure your selfe that such wine is apt to corrupt and become naught. Others doe put downe to the bottome of the vessell an elder pipe, or some other of such like woode as may be made hollow, through which they take the sent of the lees, and so are throughly certified how they smell, *Wine that will keepe long.*

and

and according as they finde the lees to be conditioned, so they iudge of the state of the wine. Some take vpon them to foretell by the couers of the vessels, wherein if they finde and perceiue the sauour of wine, they by and by iudge the wine to be good: but if in them they finde the sauour of water, they make no great reckoning of any such wine. Others iudge them by the sauour and relish of the wine, which if they finde to be sharpe in the beginning they hope well of the goodnes thereof: but and it they taste flat and soft, then they feare the contrarie: if when the newe wine is put into the vessels, it bee fat and glewie, it is a good signe: but if it be voide of all strength, it will easily be turned.

The keeping of wine.

To keepe wine at all times, cast of the powder of roch allome powdred verie finely into the vessell whereinto you shall turne your newe wine: or the powder of salt finely powred: or pebble stones, and little flints, taken out of some brooke: or aqua vitæ: or else hang in the vessell by the bung, a glasse violl full of quicke siluer, but very well and close stopt euerie where, and let it lower and lower as the wine shall sinke lower and lower, so that the violl may hang within the wine continually: or else powre common oile vpon it.

The seauenteenth Chapter.

A discourse of certaine wines that serue for the vse of physicke

To make medicinable wines.

As we haue saide in the second booke, that the prouident huswife must sowe and plant vpon some bed in her kitchen garden, certaine medicinable herbes: in like manner it will not be amisse that the farmer or his wife shoulde yeerely in vintage time make and compound wines for the necessities that may grow by reason of diseases happening amongst their familie. Wherefore to the ende we may not forget any thing which may fall out to be necessary for the better keeping of our countrie farme, we woulde not omit the manner of compounding such wines: which notwithstanding the good wife must not vse or giue others counsell to vse hand ouer head, at happe hazard and without good reason: for it is not good to vse them where there is an ague, neither yet till fortie daies past after that they be made. Their vessels must be alwaies kept close shut, for else they will grow sowre, or else spende themselues very easily: and after that it is perceiued by the taste that they retaine the relish of the simples infused, it will be good to take the said simples out of the vessels.

Rose wine.

To make wine of roses: take drie roses of the mountaines, anise, and honie, of euerie one alike, and a little saffron, binde them together and put them in the wine: this wine is very good in the weaknes

of

of the ſtomacke, and for pleuriſies.

For to make wine of wormewood: take ſea wormewoode, or for want thereof common wormwoode, eſpecially that which hath the ſmall ſtalkes and ſhort leaues, about eight drams; ſtampe them, and binde them in a cloath which is not ouer thicke wouen, and ſo caſt it into the veſſell, afterwarde powre new wine in vpon it, and that after ſuch a proportion, as that for euery three pintes of wine, there may be an ounce of wormwoode, and ſo to holde on till the veſſels bee ful, leauing a vent open, that ſo it may not fall a boyling againe. The vſe of this wine is good for the paine of the ſtomacke and liuer, and to kill ſuch wormes as are in the guts. *Wormwood-wine.*

To make wine of horhound that is good for the cough in the vintage time, you muſt gather of the crops and tender ſtalkes of horehound, growing eſpecially in ſuch places as are leane and vntilled, and afterward cauſe them to be dried in the ſunne and made vp into bundels tying them together with a ruſh ſinking them in the veſſell: in ſixtie fiue quarts of new wine, you muſt put eight pound of horehounde to boile therewith, after that the horehounde ſhall be taken out, and the wine ſtopt vp very diligently. *Wine of horehound.*

The wine of aniſe and dill, againſt the difficultie of vrine, the wine of peares againſt the fluxe of the bellie: the wine of bayes againſt the ache of the bellie and wringings in the ſame: the wine of aſarum bacchar, againſt the iaundiſe, dropſie, and tertian ague: the wine of ſage againſt the paines and weakenes of the ſinewes, and they are made as the wine of wormwood. *Wine of aniſe, dill, peares, baies, aſarum bacchar and ſage.*

For to make wine of thyme: you muſt gather the thyme when it is in flower, and drying it, ſtampe it and put thereof the quantitie of a twelfth part in a veſſell of thirtie quarts of white wine. *Wine of thime.*

To make wine of betonie: take betonie the leaues and ſeede about one pound, put them in twentie quarts of new wine: when ſeuen moneths are paſt, change the wine into a new veſſell. *Betonie wine.*

For to make wine of hyſſop: take the leaues of hyſſop well pouned, make them faſt in a very fine cloath, and caſt them into twentie quarts of new wine: this wine is good againſt the diſeaſes of the lungs, an old cough, and ſhortnes of breath. *Hyſſope wine.*

Wine of pomegranates is made of pomegranates that are ſcarſe ripe, being throughly bruiſed and put in a veſſell in three quarts of thicke red wine, to vſe againſt the flux of the belly: to the ſame ende ſerueth the wine made of ſeruices, mulberies and quinces. You may ſee a larger diſcourſe of wines in the fifth Booke of *Dioſcorides*. *Wine of pomegranats, quinces, mulberies and ſeruices.*

The

The eighteenth Chapter.

Of such faults and accidents as happen to wine.

How wines must be ordered in cellars or roomes vnder ground.

WInc is not exempt from losse and inconueniences, anie more then all other things which are contained vnder the cope of heauen, therefore to meete with all the inconueniences which may happen to wine, you must carefully and often looke vnto the wine vessell; notwithstanding, from the time that the saide vessels are couered and stopped vp vnto the spring equinoctiall, it will be sufficient to fill vp and handle the wine once euerie sixe and thirtie daies, but after this time, twise in the said space: and if the wine begin to flower, then you must looke to it more oft, least the flower thereof should fall to the bottome and spoile the wine. Looke by how much the heat is the greater, by so much you must visite and looke to your wines the ofter, and euer keepe it with filling of it vp, refreshing it and giuing of it vent, for so long as it holdeth cold, it will remaine and continue sound and intire.

Against the eagernes or sowrenes of wines.

If your wine should begin to waxe sowre: you must put in the bottome of the vessell a pot full of water well stopt, and thereupon also stopping the vessell leaue therein some small hole to vent at, the third daie after you must draw out the pot, and you shall finde the water therein stinking, but the wine sound and neat.

At what time wine is most apt to turne and corrupt.

Wines are most subiect to turne, especially about the eleuenth day of Iune, being the sommers solstice, and the time when the vine flowreth, somewhat before the dog daies enter through the great change of heate and cold, and generally when the southern winde bloweth, whether it be in sommer or winter: as also in time of great raine, of great windes, earthquakes, or mightie thunders, and when as vines or roses begin to flower: to keepe them from turning, you must put into them when they boyle vp and worke, boyled salt: or else the seede of smallage, barley bran, and the leaues of the bay-tree, or ashes of the branches of the vine, with fennell seed brayed.

Others do appoint these remedies. take the rootes of mugwort, and cinquefoile, make them in powder: and when the wine shall haue boyled put them in, and it will not turne nor change. Likewise if you lay your vessels in vaulted cellars, or if you put in them a plate of iron or flint stones, or leauen made of rie paste, or a couering vpon the vessell, you keepe your wine from all inconueniences that might happen vnto it by thunder or lightning.

Sweete almonds cast into red wine, keepe it from turning: the ashes of oake wood cast into the wine doe the like: the meale of the white fetch doth saue the wine from turning and keepeth it in his soundnes. Allom broken in pieces doth the like. As also brimstone,

lyme,

lyme, sande, and plaister.

If it happen that the wine be turned, you must cast into the vessell a good quantitie of beaten pepper; and which is better, change his vessell: take certaine whites of egges, which after that you haue beaten them very well a long time and taken off the froth rising vpon them, cast them into the vessell and rosle it. Or else: take twelue kernels of old walnuts, draw a thread through them, roste them vnder the ashes, and whiles they are yet hot, hang them in the vessell within the wine, and leaue them there so long as vntill you see the wine to haue recouered his former colour. *To helpe the wine that is turned.*

If the wine be become troubled, it will quickly grow cleare and become fined againe with the kernell of a pine apple, or of peaches, or with the whites of egs and a little salt. Otherwise: take halfe a pound of roch allome, and as much sugar, make a verie small powder thereof and cast it into the vessell. *For troubled wine.*

If it appeare and shew manifest vnto you that your wine woulde marre and spoyle, take this course with it: If it be claret wine, take the yelke of an egge; and if it be white, take onely the white of an egge, putting thereto onely three ounces of cleare bright stones taken out of some swift running riuer: make them into powder with two ounces of salt powdred very small, and mingled all together: after that put the wine into another vessell that is neat and cleane, and not tainted with anie manner of smell before hand: which done, cast into the same all the foresaide composition, and mingle it with the wine fiue or sixe times a day, vntill three or fower daies be past: remember and marke to doe this same before such time as the wine be all together marred: for when it is once throughly corrupted and marred, this composition will serue you to no ende, and the labour and time is but lost that you bestow about it. *To helpe wine that beginneth to wax awaie and die.*

To restore againe into his former and sound estate the wine that is growne fat, fustie, and hath taken winde: cast into the vessell cowes milke somewhat salted: some cast thereinto allom, lyme, and brimstone, but not without their great hurt that shall drinke the same: but indeed it would doe better if they would put into it some Iuniper berries and Ireos rootes.

If that your wine doe continue to hold and still retaine anie ill qualitie by his hauing taken winde: you must make it loose the same, by making two or three towers in the vessels, and afterward setting it againe vpon his cantling and then to fill it vp.

To take away the fustie smell of wine: you must take medlars ripened vpon the straw, and opening them in fower quarters, tye them with a small threed, and thereby make them fast vnto the bung hole of the vessell in such sort as that they may hang all couered ouer in the wine; hauing left them thus for the space of a moneth, then take them *To take awaie the fustines of wine.*

out

out, and by this meanes you shall likewise take away the ill smell of your wine: or else take bayberries, and boyling them in wine, cast the same afterward into the said vessell. Otherwise, make a bag and fill it with sage, putting it in the vessell, but not laying it in the wine: the same remedie serueth to recouer wine that is become sowre: if you had not rather chuse for the helping of your wine to cast into it some leeke seede.

To helpe the sowrenes of wine.

To keepe the wine from sowring.

To keepe wines from sowring: you must place the vessell in a cold place, very full and well stopped, so as they may not haue anie breathing place: or else if you want the benefit of a cold place, and that you are forced to set it in a place that is hot: or else if the wine faile through hauing beene a long time pearced: to keepe it from falling quite sowre; you must hang at a small coard a great piece of larde well wrapped in a linnen cloath, and let it downe by the bung hole into the middest of the wine. And as the wine shall grow lower and lower, so you must still let lower the larde, that so it may alwaies continue in the midst: in the meane time, the vessell must be continually well couered and stopt: and by how much the peece of lard shall be the greater, so much the better will it keepe the wine from sowring. Some aduise and giue counsell for the same purpose to put into the vessell oyle oliue, in such quantitie as that it may onely couer the vppermost face of the wine: and when the wine is all drawne out, the oyle may easily be separate from the lees and gathered into a vessell by it selfe.

Oile oliue a preuentor of the sowrenes of wine.

For waterish wine.

To take away the wateriskes and ouermuch moisture of wine, you must put into the vessell the leaues of the pomegranate tree.

Against venome or venemous beasts falling into wine.

If any beast be fallen into the vessell of wine and dead therein, as an adder, rat, or mouse, so soone as the dead bodie is found, you must burne it, and cast the cold ashes into the vessell where into it had fallen before, and stirre it about with a wooden sticke: others giue counsell to put hot bread into the wine, or any iron ring, and then the venome will vanish and depart.

The nineteenth Chapter.

Of the manner of making vineger.

Vineger is a fault of wine.

VIneger commeth through the fault and defect of wine, as we may vnderstand by that which is gone before: the riotousnes and pleasure of men, hath been the cause that vineger came euer in request, not onely for sauces, but also for many other vses: It shall not therefore be thought vnreasonable to vse a word or two about the making of vineger.

The most common way to make vineger is on this sort: They vse to take good wine, and therewith to fill the vessell to the halfe, leauing

it

it vnstopt and set in a hot place, as in some corne loft, or in some gutter betwixt the tiles.

If you desire to make vineger in haste, you must cast into your wine salt, pepper, and sower leuen mingled together: And yet to make it more hastily, you must heate red hot some stone, tile, or gad of steele, and put it all hot into the wine, or else the mouth of the vessell must stand alwaies open, or elle the vessell must be set in the sunne three or fower daies, and therewithall a little salt put in the vessell. Or else fill a new earthen pot, that is not past halfe baked with wine, and stop it well, afterward put it in a kettle full of boiled water vpon the fire, and letting it there remaine a long time in the boiling water, it will growe sower: Or else put into the wine a beete root stamped, or a radish roote, or medlars, ceruises or hornes, mulberries, vnripe sloes, or a shine of barlie bread new baked: or else you must take of the blossomes of the ceruise tree in their season, and drying them in the sunne after the manner of rose leaues, either in a glasse vessell, or in one of blacke earth, fill vp the same vessell with pure vineger or wine, and so set it forth againe into the sunne or in the chimney end to the heate of the fire, and in a short time it will become strong and very sharpe vineger: but and if you would restore it againe to his former state of wine, then you must cast of colewoort rootes into it.

Radish and beete rootes make vineger.

The rootes of colewortsmake vineger to turne againe into wine.

The twentieth Chapter.

Of some obseruations and instructions concerning vineger.

TO make strong vineger take the fruit of the cornell tree, when it beginneth to grow red, and of bramble berries, such as grow in the fields, when they are halfe ripe, drie them, make them into powderr, & with a little strong vineger, you shall make little prety balles, which you shall drie in the sunne, afterward you must take wine, and heate it, and when it is hot put into it this composition, and it will be turned very speedily into very strong vineger.

Strong vineger.

To make vineger with corrupted wine: Take a rotten and corrupt wine and boile it, taking away all the scum that riseth in the boiling thereof, thus let it continue vpon the fire till it be boyled away one third part, then put it vp into a vessell wherein hath beene vineger, putting thereto some cheruile, couer the vessell in such sort, that there get no aire into it, and in a short time it will prooue good and strong vineger.

To make vineger of marred wine.

To make drie vineger to carrie whither a man listeth, take of wilde cherries when they begin to be ripe (and yet the fruit of the cornell tree is better) of mulberries when they be red, and vnripe grapes that are very thicke, and of wilde acorns before they be ripe,

Drie vineger.

stampe

ſtampe all together : then take of the beſt vineger you can finde, and mingling all together, make vp the maſſe into ſmall loaues, ſetting them to drie in the ſunne; and when you would make vineger, temper ſome of theſe ſmall loaues in wine, and you ſhall haue very good vineger. Otherwiſe, take the vnripe iuice of corne that is very greene, and ſtampe the ſame putting vineger thereto, and thereof make a paſte, whereof you ſhal make little loaues to be dried in the ſunne, and when you would haue vineger, temper of theſe loaues in ſo much wine as you ſhall ſee ſufficient, and you ſhall haue very good vineger.

Roſe vineger. To make roſe vineger: Take good white vineger, and put therein red roſes either new or dried, keeping them manie daies in the veſſell, and afterward taking them out, put them in another glaſſe, and ſo keepe them in a coole place: After the ſame manner you may make vineger of elder tree flowers.

To make vineger without wine. To make vineger without wine; put into a veſſell ſoft and daintie peaches, and vpon them perched barlie, letting them putrifie all a whole day, then ſtraine them and vſe the licour. Or elſe take olde figs and burnt barly, together with the inner parts of orenges, put all theſe into a veſſell, and ſtirre them vp verie well and oft, and when as they are become putrified and reſolued, ſtraine them out and vſe the liquor.

Sweete vineger. To make ſweete vineger: Take fiue pintes of ſtrong vineger, and with as much new wine reſerued vppon the treading out of the grapes, adde ſome quantitie of pitch, and put all together in a veſſell which you muſt ſtop very carefully: and after that all theſe haue continued together for the ſpace of ſome thirtie daies, you may vſe thereof for vineger. Otherwiſe: Take a veſſell of new wine, and mingle it with two veſſels of vineger, and boile them together till the third part be conſumed: Some doe adde three veſſels of ſpring water vnto two of new wine and one of vineger, boiling them all together vntill the third part be conſumed.

Mightie ſtrong vineger. To make mightie ſtrong vineger, drie the droſſe of grapes, two whole daies, then put it in new wine, put thereto ſome of the vnripe iuice of corne, and you ſhall make a ſtrong vineger, whereof you may haue the vſe within ſeuen daies after. Or otherwiſe: put pellitorie of Spaine into vineger and it will make it ſtrong. Furthermore if you boile the fourth or fifth part of vineger vpon the fire, and put it vnto that which is before preſcribed, putting it after all this in the ſunne ſome eight daies: you ſhall haue a pleaſant and ſtrong vineger. The rootes of couch graſſe when they are olde, boiled grapes, the leaues of the wilde peare tree ſtamped, the rootes of brambles and whay, the quicke coales of burned acornes, and boiled ciche peaſe and hot tiles, euen euery one of theſe by themſelues being caſt into vineger doe make the ſame ſtrong.

Pepper

Pepper vineger is made, by casting into vineger or hanging therin, whole pepper, made vp in a linnen cloath for the space of eight daies. *Pepper vineger.*

You shall know if there be any water in the vineger, if you put into it any *Salnitrum*, for then if it swell vp as though it would boile, you may boldly say that there is water in it. *Water in vineger.*

To make vineger good to helpe digestion and for your health, take eight drams of the sea onion, and two pints of vineger, put them together into a vessell, and with them as much of pepper, mints, and iuniper berries, then vse it afterward.

To make vineger of sea onions, you must put ten such onions salted into fiftie quartes of sweete new wine, and fower pintes and a halfe of strong vineger, and if it be not sharpe enough, then twise so much, in a pot holding fiftie fowre quarts, and boile them till the fourth part be consumed: or if the wine be sweete, it may bee boyled to the spending of the third part, but such wine must be of his owne distilling out of the grapes before they be troden and very cleere. Otherwise, put into a vessell thirtie pintes of strong vineger, wherein let steepe for the space of twelue daies, the inward part of a white sea onion which hath bin in the sun thirtie daies: after that take the vineger and let it settle and abide in some place where you will to vse it afterward. *Dioscorides* in his 21. chapter of his fourth booke discribeth another manner of making of it. *Vineger of sea onions.*

It is to bee obserued and noted that all sorts of vineger are best helped to keepe their tartenes, by putting into their vessels, at the bung hole a sticke of red withie.

The one and twentieth Chapter.

Of the manner of making of verivice.

THE most common manner of making of verivice in this country, is to gather the greene grapes from off the vine frames, or the grapes which are not yet ripe, and are left vpon the vines after vintage, and hauing gathered them to tread and presse them afterwarde, after the manner of ripe grapes, putting the liquor or iuice thereof into vessels, and salting the same by and by after that it hath purged out all his scum and filth, by boiling as new wine doth. In the northren countries they doe also make verivice of crabs mingling a little salt therewithall. Some make a drie verivice after this maner. They take the greenest that they can get, pressing the iuice thereout, which afterward they boyle in a brasen vessell vntill it become thicke and as it were congealed, then they drie it in the sunne, and keepe it for their vse: Othersome boile it not at all, but drie it in the sunne till it come to the thicknes of honie.

To make your verjuice looke more greene, and to be better, and to preuent that it may not turne and become mouldie or hoarie, you must the day after it is turned vp into his vessell, plucke a bunch or two of blacke grapes, and cast them into the vessell at the bunghole, euen in whole clusters, and then to salt it after that it hath beene boiled.

The two and twentieth Chapter.

Containing certaine discourses by the way of the inuention, nature, faculties, differences, and necessitie of wine.

AS we haue in the former booke at large intreated of bread and of the differences thereof, according to the vse wherein it is imployed, namely, the nourishment of mans body: so now after the manner of ordering and husbanding of the vine, and of the fruite which commeth of such husbanding thereof, which is wine, it shall not seeme vnreasonable if summarilie wee discourse and stand vpon the necessitie, nature, faculties, and differences of wine, whereof we make so great account ordinarilie in our drinking thereof.

The necessitie of drinke.

And to the end that now we may come to the matter: Seeing that not onely the substance of mans body, but of all other liuing creatures is subiect, (through vitall heate continually working in them) vnto a perpetuall waste, and expending of it selfe: nature being prouident ouer her owne workes, hath giuen vnto and put in all sortes of liuing creatures, an incredible desire of eating and drinking, to the end that this waste and losse of substance might be repaired and restored by the well bounded increase comming of eating and drinking: for otherwise naturall heate destitute of such her foode and nourishment, woulde quickly be choked and quenched. Now the substance of euery liuing body is threefold; the first is, and consisteth of spirits; the second of humours; the third of solide parts. All which three substances may possibly be repaired by a solid substance, if so be that such solide nourishment coulde easilie be digested and distributed throughout the whole habite and vniuersall masse of the bodie. But seeing that such is the solidenes, hardnes and grossenes thereof, as that it cannot, it was needfull that it shoulde be accompanied with some floting and fluide liquor, which might stand in steede of a wagon or chariot to conueigh and carrie it vp and downe the bodie. Ioine also thereunto that this fluent liquor hath without comparison a greater power then the solide nourishment to let and hinder the drying vp of the solide partes, and to temper all such heate, as otherwise vpon euerie light motion might at euery moment offende and hurt them. This losse and continuall expence of this threefold substance (which in the end doth first

bring

bring old age, and afterwarde death) doth growe through that iarre and disagreement which is in the fower elements, whereupon the whole body is compounded and framed, which elements also notwithstanding that they may seeme vnited and ioyned together in a certaine kinde of harmonie, concent, amitie, and inuiolable bond, yet by reason of secret rancour & mutuall disagreement hapning through their contrarie qualities, they do so warre one vpon another, as that by little and little they doe procure the ruine, dissolution, and vtter ouerthrow of that body which before they had consented to frame and compose. Physitions ouer and besides this do acknowledge an other cause of this expence of nature, and bringing in of olde age, and lastly death, which is foreslowed and kept off by eating and drinking; and that is naturall heat, which feedeth vpon the radicall moisture, seated in the substance of the solide parts: which moisture, the sooner that it is dried vp, wasted, and consumed by the foresaid heat, so much the shorter is the course of life. But this radicall moisture and the continuall losse of spirits is repaired by the addition of eating and drinking, and so the life drawne foorth to a longer terme. Wherefore, nature being carefull of the preseruation and long continuance of the bodies of liuing creatures, which otherwise for the occasions aboue named would grow old & perish in a few houres, taketh not any other course for the same but by eating and drinking, which are the two meanes to susteine and preserue (so much as is possible) the liues of all liuing things. And as for eating, let vs leaue of to haue any thing to do with it, as hauing spoken thereof in the former booke, and let vs come to the second, which is drinking.

The common drinke of all liuing creatures is water.

Old and ancient histories do sufficiently testifie that water was the first drinke which men vsed generally throughout the worlde, and wherewith they contented themselues a long time, to vse it onely for the quenching of their thirst: but afterward when voluptuousnes seazed vpon mens appetite, they inuented and set before them diuers sorts of drinkes. Wherefore hauing reiected water as a tasteleste and vnsauorie thing, they haue in place thereof in all such coasts and countries, (as where the heat of the sunne might bring foorth and leade along the grape vnto his full ripenes) chosen wine for the most excellent and delightsome drinke of all others: as in other colde countries and such whereas the vine coulde not growe, they haue either still continued their drinking of water, or fetched and procured wine from other places, or else haue prepared some other kinde of drinke comming neere in some measure vnto wine, which by the delicatenes thereof might reioice the heart, and gratifie the taste. Whereupon, some in stead of water haue taken vp the vse of wine, and others of beere and

ale; some of cyder and perrie, and others of all sorts: some of honied water, or water sweetened with suger, and others of other drinkes pressed and strained out from fruits, or the decoctions of roots. All France, Italie, Sicilie, Spaine, and all other countries which are farre off from the north, do content themselues with wine: the nation of the Turkes excepted, which being incensed either by the superstition of *Mahumet*, or stirred vp thereunto by the ancient custome of Turks do vtterly abhorre wine, and vse in steed thereof honied water. England, Scotland, Dalmatia, Polonia, Sarmatia, and other northren countries do vse partly wine, as procuring the same from other places, and partly beere, in such sort, as that by how much the countries are the colder, by so much the more they are giuen and addicted to wine and drunkennes. Witnes heereof is not onely Germanie, but also Frizeland, Dalmatia, and Flaunders, the inhabitants of which countries doe not onely striue who shall drinke most, and extoll drunkennes vnto the skies: but also doe scoffe at sobrietie, and so highly disdaine such people as striue to liue soberly and temperately, as that they thinke them the most vnwoorthie of their alliance and companie. And yet (notwithstanding that so many sorts of drinks be growne in request in steede of water in many countries) wine seemeth to me to beare the bell, as being the most pleasant, delightsome and excellent drinke that can be found or thought vpon.

What is ment by wines.

The iuice then of the grape, which either runneth from the grape being full ripe, or is pressed out with feete or the presse, before it be boiled, is called new or sweete wine, but after that it hath boiled and thereby cast forth all his scum and dregs, it is properly called wine. Wherefore this boiling or working, by which in fine it is fined and setled from all his excrements, is not any manner of putrefaction, but rather an effect of naturall heate ingendred and naturally rooted in the same: for whereas the iuice newly drawne out of the grape, doth containe in it many excrements and those diuers in nature, which the naturall heate thereof cannot (without great strife, enforcement, and contending) concoct and ouercome: it is necessarie, that in this contention it should worke out a heate, boyling and very great perturbation, by reason of the struglings of the two contrarie heates: (that is to say) the naturall, which doth concoct the crude and raw matter of the new wine, and by that meanes separateth the excrementous parts from it: and on the other side the strange and accidentall heate, which is kindled and raised in the crude and raw partes of the new wine, which incountering the naturall heate no otherwise, then is done in the crises of sharpe sicknesses, at such time as naturall heate doth concoct the crude and raw matter of the disease, and attempteth to make separation of the noisome and annoying matter, many disturbances,

shakings,

shakings, heates, and other greeuous symptomes doe fiercely assaile the partie, vntill such time as naturall heate (hauing ouercome) proceede to the separating of the good and naturall humours from the excrementous ones, and expell those which were the cause of the maladie. And euen so it falleth out in the boiling or working of new wines, wherein the accidentall heate is ouercome by the heate of nature without any worke of putrefaction: the heterogene and vnnaturall matter being separated from the homogene and naturall: the vnprofitable and excrementous humour consumed, and the flatulent or windie parts thereof discussed, and to be briefe all the profitable iuice is in such sort cõcocted & digested, as that that which before was crude, flatulent and hard to be digested, is become gentle, tractable, sauourable, and very agreeable for mens vse, as though it were quite changed and altered from his nature. Of new pressed wine is made the wine called cute, in Latine *Sapa*: and it is by boiling the new pressed wine so long, as till that there remaine but one of three parts. Of new pressed wine is also made another cute called of the Latines *Defrutum*: and this is by boiling of the new wine onely so long as till the halfe part be consumed, and the rest become of the thicknes of honie. Sometimes there is a wine made called *Passum*, and it is when the grapes haue endured the heat a long time vpon the vine.

Sapa.

Defrutum.

Passum.

The inuentors and first finders out of wine.

Such as haue written in Hebrew, as also the scripture it selfe doth testifie that *Noe* was the first author of wine. *Nicander Colophonius* saith in his verses, that wine was called οἶνος in Greeke, of the name of a man which was called *Oenus*, and first pressed out the new liquor out of the grape into his drinking cup. Others write that *Icarus* was the first inuenter thereof: and that very shortly after his inuention he had condigne punishment therefore, as being slaine of the dressers of his vineyards they being drunke. Whereupon *Propertius* saith,

Noe.

Why wine is called οἶνος in greeke.

Icarus.

O Icarus th' Athenian clowne,
Deseruedly thy life throwes downe.

Athenaus saith that the vine was first founde neere vnto the mount Etna, and that a dog passing that way, plucked vp a little branch of a vine tree out of the earth, and that *Oresteus* sonne of *Deucalion* which raigned in that countrie caused the same branch to be planted againe, whereout there sprang many shoots of vines, which he called *Oenus* of the name of the dog, which had pluckt the same branch out of the ground: whereupon also the ancient Greekes called vines *Oenas*. The Latines say that the vine is called *Vitis, quasi vita*, because that wine doth quickly restore the vitall spirites being wasted and spent, and doth comfort, repaire, increase and strengthen the naturall heate that is weakened, which is the principall instrument of life, in so much as

that by the vse of wine, it is made more freely disposed then it was before to performe all maner of actions requisite for the life of man. Olde writers are not of one minde concerning the first originall and inuention of the vine, for euery one of them almost hath his seuerall opinion. But as concerning my selfe I thinke that the vine was brought forth of the earth as other grasse, herbes and trees were from the beginning of the world, and that it brought forth grapes of it selfe without any tilling or dressing, and those like vnto them which the wilde vine (called of vs *Labrusca*) doth now bring forth, but that the first fathers did not so quickly know the vse and profite of the vine. For in *America*, *Florida*, and the new found countries, there are great store of vines growing plentifully and in great abundance without any arte or industrie of men, although the vse of wine be as yet vnknowne to the inhabitants of those countries. *Plato* in his *Cratylus* saith, that wine is called in Greeke οἶνος *quasi* οἰόνους, that is to say, iudgement, consideratenes and aduisednes, because it furnisheth the intellectuall part with iudgement and aduise, because by his quicknes it restoreth the spirits, whereby it strengthneth the minde as well as the bodie, as *Musestheus* hath very well reported of it. Some likewise say that the Greekes call οἶνος *quasi* ὄννις, that is to say, profit and vtilitie, because it is infinitely profitable. The Latines call it *Vinum à vi*, by reason of the violence it offereth to the spirit of man, when it is taken out of measure. The cause likewise why the olde writers called it *Temetum* was because the immoderate vse thereof holdeth captiue and corrupteth the minde, that is to say, the vnderstanding. We will define wine to be a iuice extracted and pressed out of ripe grapes, purified and fined, contained in vessels fit for the receiuing of the same, conuenient and agreeable vnto mans life, and therefore the liquors of the grape newlie pressed out is not to be called wine, because it is not fined, neither yet doth veriuice deserue the name of wine, because it is pressed out of grapes as yet not ripe.

Why it is called Vinum.

Why Temetum.

The definition of wine.

The temperature of wine and of the liquor newly pressed out of the grapes.

The new pressed iuice of the grape is of temperature hot in the first degree, but wine is hot in the second degree, yea in the third if it be olde, it is likewise of drines proportionable to his heate. It is true that according to the regions, grounds, inclination and disposition of the yeere, and such other differences which doe alter and change his temperature very much, it falleth out to be sometimes more sometimes lesse hot. The wines that *Spaine*, *Italie*, *Languedoc*, the country of *Narbone* in *France*, *Gascoigne* and other hot countries doe bring forth, proone hot and drie in the end of the second, yea in the beginning of the third degree, especially when the constitution of the yeere falleth

out

out to be hot and drie, and when they are of a middle age. But such wines as grow in grounds about *Paris* or other countries which draw towarde the westerne or northren quarter, doe scarcely fall out to proove hot in the beginning of the second degree, no not in a hot and drie yeere, and though they be growne to a middle age, as not having passed the age of the first yeere. For when the yeeres fall out cold and moist, all these kinds of wines for the most part growing in these countries become greene and rawe, and for the same cause called greene wines, and those so weake, that hardly may they be iudged to be hot in the first degree, and the yeere expired and gone about, their heate being likewise expired and spent, they either become altogether sower, or hauing lost their smell and taste proue to be naught and corrupted. Whereupon that which the olde writers haue deliuered concerning the temperature and qualities of olde wines cannot bee proued true of such wines as growe in these countries, wherein the greatest part of *French* wines within three or sixe monethes, or at the furthest by the ende of the yeere, growe to the full top and perfection of their goodnes: whereas on the contrarie, such as grow in hot countries, and become themselues more hot, will not be at the best, before the fifth, sixth, yea before the tenth yeere: which if it be so, you must thinke that the sinewes and other senses of the body, doe receiue most harme by olde wines which growe in hot and dry countries: and that they are the lesse offended and hurt of the olde wines which growe in this our French soile which is more colde. In this countrie new wine being sufficiently boyled vp and fined, as it is more pleasant to the taste, so it is more hot, cleane contrary to that which groweth in hot countries. *Dioscorides* writeth that olde wine for as much as it is hotter, doth hurt them very much which feele some weakenes in some of their inward parts: but we cannot say the like of our wine when it is old, but rather of our wine when it is new, for the same reasons. Wherefore it followeth, that the opinion of *Dioscorides* and diuers other physicians, touching the heate and temperature of old wines, is to be vnderstoode of wines that growe in countries that are more hot, and not of such wines as (if they be daintie and delicate wines) will attaine the height of their goodnes and summe of their perfection in sixe or eight moneths, or at the furthest by the end of the yeere, in such sort as that the same being ended, they waxe sower: yea, if they be right noble wines they be well forward vpon and towarde their perfection in the beginning of the seconde yeere, or somewhat after. The force and naturall heate of the delicatest French wines is gone after the first yeere is once past: but in a noble wine it fadeth and falleth away by little and little, not before the second yeere be past. The wines of Gascoigne and Anion, growing in a hot and drie season, draw very neere vnto the nature and

Olde wines are heater then the new.

New wine heater then old in France.

temperature of the wines whereof old writers haue spoken: because the greatest part of them may bee keept vnto the thirde yeere. The wines of *Orleance* are at the best the second yeere, and it staieth with them to the end, but when the second yeere endeth, they beginne to loose their goodnes.

Now if the case stande thus in hot countries, it is better to abstaine from old wines, then from new which are not yet altogether fined, for their old wines do heate out of measure; but the new wines stirre not vp any heate that may molest and trouble, and yet they also be verie hurtfull, because they digest very hardly, and beget many obstructions. Wherefore in countries that are more hot, newe wines may be drunke without any preiudice to the health, being of a thinne substance and well fined, because they haue but a weake heate. But in these our countries which are cold and moist, old wines may be vsed, as also the new which are of a thinne substance, well purged and fined. Notwithstanding our countrie olde wines, in as much as after some long time they loose their heate, and thereby heat the lesse, are not so hurtfull vnto the head as the new, or those which are of a middle age.

The iuice of the grapes not hauing yet wrought.

The iuice thereof newly pressed from the grape (in as much as it is rawe, windie, and of hard digestion, if therewithall it do not ouerturne the stomacke and prouoke fluxe of the belly) doth stay a long time in the stomacke and places thereabout, swelling and blowing vp the same, and therein begetting rebellious obstructions hardly taken away and remooued, as also it causeth troublesome dreames, and cold and durable diseases.

New wines or the iuice of grapes which haue latelie wrought vp.

New wines which are not as yet throughly digested, are in temperature and facultie very like vnto the new pressed liquor of grapes, for euen they are so farre off from perfection, as that they also become of hard digestion, and which is more, doe not easily passe through the bowels and veines, or prouoke vrine any thing at all, being the great and soueraigne helpes, which are to be looked for to come from wine. Yea furthermore, they oftentimes hang and lie long in the body, and become very subiect to soure in the stomack, if there be but some smal quantitie thereof taken more then is conuenient.

The benefite of wine.

Wine which is well and sufficiently digested and wrought, and thereby purified & fined from all such excrements and lees, as either the new pressed liquor is woont to cast vp, or the same after further digestion is woont to settle downe to the bottome, hath his vertues and properties all quite contrarie, vnto the vices and inconueniences which accompanie the raw liquor and newly concocted wines. For it is concocted easily and caried through the bowels and veines quickly, it bringeth downe and asswageth the fulnes and swellings rising about the principall parts of windie or distending causes as crudities and such like: it deliuereth the wombe or matrix from such obstructions,

as

as the naturall excrements thereof are woont to breed therein; it increaſeth the ſtrength of all the inſtrumentall parts: it maketh way for the euacuation of all manner of excrements, and ſo prouoketh ſweat, but principally vrine: it cauſeth ſleepe and cureth cold poiſons: it ſtrengthneth the ſtomacke more then all the reſt of the parts of the body, as being firſt receiued and intertained into the ſame, and heereupon it becommeth a great friend to digeſtion, prouoketh appetite, ſuccoureth and relieueth the hart by ſpeciall propertie, thereby ſpeedily repairing ſuch naturall and vitall ſpirites, as haue beene waſted by ſodaine euacuation, watchings, or other occaſions: it nouriſheth alſo, preſerueth, ſuſtaineth, and ſtrengthneth naturall heate, whereas it beginneth to faile. Heerby it worketh vpon the vnderſtanding, awaking and rouſing it vp: cheereth and incourageth the faint and languiſhing, and recreateth and reioiceth the ſpirits, in regarde whereof *Homer* ſaith, that the gods haue giuen wine to men, for the driuing away of their cares and troubles. And *Socrates* a gueſt at *Platoes* feaſt, praiſeth the moderate vſe of wine in feaſts and banquets, becauſe (as he ſaith) it quickneth a man to that which is good: and maketh the minde more readie to execute his offices and duties. Laſtly, wine maketh the colour more liuely and cherrie-like, and is founde a moſt excellent, ſpeedie, and ſingular remedie againſt all ſwounings and faintings which happen through exceſſiue euacuation, or crudities moleſting and troubling the vpper mouth of the ſtomacke. And in as much as it attenuateth, concocteth and diſcuſſeth crude and cold humours, and flatuoſities abounding in flegmaticke and melancholicke perſons, it becommeth a moſt excellent drinke, not onely for flegmaticke and melancholike ones, but alſo for all ſuch as are of a colde and moiſt diſpoſition of bodie, but eſpecially for old folkes, and principally in ſommer, in ſuch countries as are giuen to be colde.

The annoiances, hurts, and diſcommodities of wine.

And yet notwithſtanding that wine ſurpaſſe in excellencie and goodnes all other ſorts of drinkes, it worketh many annoiances by reaſon of his quantitie, qualitie, or vaporouſnes. The moſt notorious and common annoiance that the vaporouſnes of the wine doth cauſe, is drunkennes: which as *Athenæus* recordeth, maketh men ſots and ſenſeleſſe, and yet ſo talkatiue & pratling, as that they cannot hold their peace, neither yet conceale any thing they know: whereupon the prouerbe groweth, that wine goeth barefoot: becauſe the drunkard lieth open & naked on euery ſide, & couereth or hideth things no more thē the ſteele-glaſſe, for which cauſe the Poet *Æſchylus* hath written that the pictures of mens bodies are commonly to be ſeene in braſſe: but the ſhape and faſhion of the minde in wine; And *Plato* affirmeth that the manners & diſpoſition of euery man is knowne by wine. The Poet

The hurts and inconueniences that wine worketh.

Drunkennes.

Wine goeth barefoote.

Theognis

Theognis doth likewise aduertise vs, that as golde is proued in the fire, so the vnderstanding part of man by wine, in these verses:

Quale sit admotis explorant ignibus aurum:
Mens hominis vinum sæpe sit anne probat.

Notwithstanding, when the braine is full of flegme, the immoderate vse of wine doth not so much make such men to be giuen to much talke, as to feele a great heauines in their heads, and to fall into deepe and sound sleepe. Ancient writers, as saith *Plutarch*, consecrated the disease called the Lethargie vnto *Dionysius*, because that such as spoile themselues with drinking of wine, for the most part fall into such kind of blockishnes, feeling such a drowsie heauines in the heade, forgetting to remember what they shoulde doe, and suffering themselues to fall right downe like dead men: For wine (as *Aristotle* obserueth) fitteth the seuerall natures of diuers humours, and applieth it selfe thereunto, howsoeuer that when it maketh drunken, it drieth the vnderstanding from her accustomed estate, corrupteth the memorie, and disturbeth all the senses. Notwithstanding, it maketh not all drunkardes in all points alike, for some it maketh lumpish and drowsie, as such (as I haue saide before) as haue their braines repleate with flegme: others merrie and iocund, as those which are sanguine: manie to be giuen to contentions, and much prattle, as such as are subiect to yellow choler: othersome to be giuen to picke quarrels, do wrongs and worke much harme, and those are such as are subiect to blacke choler. And againe, other some mute and dreaming, as those which are subiect to a cold melancholicke humour. Furthermore, such as become foolish and senseless by hauing drunke too much wine, their braine being filled with great quantitie of blood and spirite, doe feele a heate throughout their whole body, but chiefly in their head, except they be such as waxe cold and benummed through their folly, as in whom the naturall heate is not quickned and kindled, but rather smoothered and choaked by reason of the excessiue quantitie of wine they haue taken; no otherwise then as the fire is quenched when there is too much wood heaped vpon it: and the flame of the lampe put out when there is too much oyle in the lampe. For as a little deale of fire is choaked through a great heape of wood; euen so naturall heat is often times strangled vpon the sudden by the immoderate drinking of wine. But and if it be yet so drunke immoderately, as that it cannot extinguish and suddenly destroy the naturall heat, at the least by snubbing and checking of naturall heate, hurting and infeebling his actions, as also in diminishing the strength of the body by surcharging of it with heauie loades of superfluities: accidentally it cooleth in such sort, as that it bringeth to nothing and quite vndoeth the prouocations and acts of lust, which of it selfe and by his owne nature it might otherwise maruellouslie prouoke. And

Wine fitteth the dispositions of the drinkers.

hereupon

hereupon it is that *Aristotle* saith, that the seede of drunkards becommeth dead and fruitlesse, and their children blockheaded groutnolles. Wherefore euen as wine (when as by his feruent vapours it assaileth the head and filleth the braine) prouoketh drunkennes and foolishnes: so when the saide vapours are thickned somewhat and congealed into a serous and watersh substance, by the coldnes of the head, if they be not discussed and spent by the power and force of nature, the excrement which shall be thereby ingendred (although that the drunken fit being passed ouer, the party come againe to the enioying of his former estate and seeme to be well) if it remaine long time in the braine, and being fast setled therein, grow further and gather more vnto it, doth in the ende stirre vp many diseases of the head, as hardnes of hearing, deafnes, noyses in the eares, blindenes, the falling sicknes, conuulsions, palsies, Apoplexies, and many other such like, of all which it is not otherwise to be accounted the cause and originall, then by way of accident, as also of that sudden strangling disease, which it causeth not but verie seldome. On the other side, if this excrement gathered in the braine by the immoderate vse of wine, happen to fall downe vpon the inferiour parts, it will breede many destillations & catarrhes, hoarsenes, rheumes, coughes, gouts, difficultie of breathing, and many other symptomes, verie hard to be cured. Yea and by his vaporousnes, how soberly, and in how moderate quantitie soeuer it be drunke, it becommeth noysome and hurtfull to such as haue a weake braine, and their sinewes and ioints infirme and feeble: for vnto such people it becommeth so egregious an aduersarie as that if one troubled with the gowte, should at the same time that this paine is vpon him, taste but some fewe drops thereof washing his mouth onely therewithall, he shall presently feele his paines increased, and falling into a far greater rage. Yea which is more, such excrement ingendred in the head, getteth there such a kinde of enimitie and aduerse qualitie, and that so at iarre and maliciously bent against the iointes, as that it rusheth it selfe in his destillations, rather vpon the iointes then vpon any other parts, and so causeth gowtes and ioint aches. Finally this excrement being of a subtile and sharpe substance, falleth and penetrateth easily into the lungs, as also corrupteth and exulcerateth them. There are also other most dangerous annoyances which wine of it selfe and by his very nature causeth. For in as much as it is of a hot and drie temperature, if it be not drunke moderately and well delaied, by the long vse thereof in hot and drie bodies, it is woont to ouer heate and drie their noble partes, to ingender great store of cholericke humours, which standing without remooue and motion, must needes breede manie maladies and diseases.

That drunkards their seed and nature is not apt for generation.

From hence spring out agues both continuall and intermittent, inflammations of the inward parts, as the liuer, spleene, and lungs, the pleurisie,

pleurisie, passion of the reines, and such other inflammations of manie other parts, which haue not as yet any proper name assigned them. Hence likewise grow all itches, tetters, wilde fires, flying fires, cankers, and all sorts of vlcers. Those therefore that are prone and apt to fall into such inconueniences of diseases, or which are alreadie through the ill ordering of their life fallen into the same, must altogether abstaine the drinking of wine, or at the least drinke but a very little, yea though it should be very weake and well delaied with water. The olde writers, and amongst others *Cicero* in his third booke of the nature of the gods, thought it good, that seeing wine doth seldome profit, and hurt very often, that it were better not to permit it at all to be vsed of those which are sicke, rather then vnder a conceited hope of some doubtfull health, to expose and lay them open to manifest danger by the vse thereof. Notwithstanding we daily finde, that the vse of wine is very commodious and profitable for cold and moist complexions being such as are troubled with colde and moist diseases. Wherefore the wise and well aduised Physition may tolerate the vse thereof, when he knoweth that there is neede for the concocting of some cold diseases, and shall deeme it altogether in hot diseases: yea and oftentimes also in cold diseases, as in such whose conioyned and next cause he findeth to be nourished and maintained by some primitiue and antecedent cause that is hot.

That it is not good for such as are in health to vse pure and vnmixt wine.

That vndelaied wine is not wholsome for such as be in health.

The learned of ancient time haue alwaies permitted the moderate vse of wine being delayed with water, when it should be vsed of them which were whole, but haue alwaies reiected and disallowed pure and vndelaied wine, as also surfetting, and that in their feasts and bankets. For *Hesiodus* commandeth that there should be three thirds of water mixed with one fourth part of wine, and this not to be vsed commonly, but at some solemne feasts and bankets. *Athenæus* writeth that the Grecians vsed to drinke two glasse of wine, delaied with fiue glasses of water, or one glasse of wine delaied with three glasses of water. And in very truth our ancient predecessors did put and mingle wine amongst water, and not water amongst wine: for they put but a very little quantitie of wine into their water as *Theophrastus* reporteth. Which custome and vse of sobrietie must be followed and imitated by the decrees and appointment of Physitions. And as for the quantitie of wine to be drunken, the poet *Ebulus* bringeth in *Dionysius* speaking to that end in this sort.

What quantitie of water is to be put to wine.

Tres tantùm pateras, quibus est mens sana propino:
Quarum quæ fuerit prima, salubris erit.
Proxima delicias facturæ est, tertia somnum:
Luxus erit positum transiliisse modum.

This

This decree and ordinance hath beene approoued by them which haue forbidden by their lawes, that the Romane prieſtes ſhould not drinke any more then three glaſſes at a meale.

And as concerning age, wine is hurtfull vnto yong children, as alſo to them which are growne vp to greater yeeres: becauſe that wine by his very much drines deſtroieth and ouerthroweth their hot and moiſt conſtitution, which *Hippocrates* commandeth to be maintained by things that are moiſt. And that it is ſo, we ſee that ſuch children as vſe to drinke wine howſoeuer it be delaied (their liuer being dried and ouer heated, by the continuall vſe of the ſaid wine) doe fall for the moſt part into a long and laſting fluxe of the bellie, and in the end into an irrecouerable hecticke feauer, which the common people call a withering and pining away, and out of which there is not one of a hundred that eſcapeth. For this cauſe *Galen* was altogether againſt the giuing of children any taſte of wine, as alſo any others, who like children are of a hot and moiſt temperature & conſtitution, becauſe that by his vaporouſnes it filleth the braine, and doth infinite hurt and miſchiefe. *Plato* in his precepts of ordering a common wealth, commandeth children to be kept from wine till they be fifteene yeeres olde, and his reaſon is, for that fire muſt not be added vnto fire: from fifteene vnto fortie he permitteth the moderate vſe thereof: and after this age he aduiſeth to drinke much and that very good, for the mitigating and qualifying of the diſcommodious, troubleſome and noyſome occurrences which may happen in the life of man: and this his opinion is not altogether to be reiected. For as wine is altogether enemie vnto children: ſo it maketh recompence in the good it doth vnto olde perſons. *Plinie* ſaith that wine hindreth thoſe which prepare themſelues, to doe, ſpeake or enterpriſe any good thing: and this was the cauſe why *Plato* forbad the vſe of wine to ſage and learned men, except it were in their feaſtes or ſacrifices. The Romanes for ſundrie reaſons did likewiſe forbid the vſe of wine to women and ſeruants. We reade in hiſtories that the vertues of many famous and great perſonages haue bin obſcured & eclipſed by the vſe of wine. Of this we haue *Lyſander* captaine of the Lacedemonians for a witnes, who was a prudent, wiſe and good diſpoſer of all his matters and affaires, ſaue that of the vſe of wine; *Antiochus* the great, *Demetrius* lying for a pledge and hoſtage at Rome, *Alexander* of Macedonie, *Dionyſius*, the yoonger, the tyrant, *Zenocrates* the philoſopher, *Anacreon* and *Alcæus* the *Lyricke* poets, and *Ariſtophanes* the Comedian, *Ennius*, *Marcus Antonius Triumuir*, *Cato Vticenſis*, and ſuch others. For this cauſe the *Locri* inhabiting the promontorie *Zephirium* in Greece (as *Athenæus* recordeth) thought it to be an offence woorthie death for to drinke wine. Of the ſame opinion at this day are the Sarazins, mooued thereto as well by *Mahomets* law, as alſo by the imitating of the ancient cuſtome of the Gentils

For what ages wine is moſt fit.

and

and Arabians. Let vs then conclude that wine not onely in exceſſiue quantitie and by reaſon of his vaporouſneſſe doth cauſe all the annoyances alreadie ſet downe, but that alſo in reſpect of his heate and drynes, it is moſt pernicious vnto hot and drie natures, as alſo vnto hot and moiſt ones, if it be not well delaied; eſpecially if it be continually vſed, though it be taken in neuer ſo moderate a quantitie. And yet notwithſtanding more or leſſe, according to age, cuſtome and manner of liuing, the ſeaſon of the yeere and conſtitution of the aire: becauſe that in olde folke and all ſuch as in whom crude flegme and melancholike iuice doth abound, his heat and drines is in ſuch ſort rebated, that for the moſt part it is vſed of them very ſafely and ſecurely both as a well nouriſhing, and likewiſe as a good phyſicall helpe, eſpecially in winter and cold countries. You muſt therefore in all ſorts of natures, ſo temper all his noiſome qualities by the mingling of water, as that it may be taken with the leaſt hurt, that poſſibly may be. When as therefore the wine is mixt with the water, the partes both of the one and the other are broken and parted as it were into ſmall inuiſible portions, whereupon there ariſeth betwixt them both a mutuall doing and ſuffering, and their qualities ſo confounded and becomming one (notwithſtanding their former contrarietie) as that into how much the leſſe partes the diuiſion is made, by ſo much the more apt and eaſie they proone to be mingled and made one. Whoſoeuer therefore ſhall mingle wine with water, or water with wine, muſt firſt ſtirre them a long time, and then before he drinke them, let them ſettle and reſt a while. Becauſe for certaintie the contrarie qualities of the wine and water will be ſo much the more repreſſed, corrected, rebated and vnited, by how much they are the longer time and the more exactly mingled together. Although that (if we will examine the things a little neere) we ſhall finde that euen wine delaied, ceaſeth not to offend and doe harme, if it be taken in ouer great quantitie, or at vnſeaſonable times, eſpecially of ſuch as are of a hot and dry diſpoſition, as we ſhall declare hereafter. But this is inough which hath beene ſaid of wine in generall: now let vs examine all the particular differences of the ſame.

That wine is hurtfull vnto hot and drie natures, and good vnto moiſt ones.

The differences of wine.

The differences of wine.

In wine we are to conſider the colour, relliſh, ſmell, faculrie and conſiſtence, for from theſe are taken and gathered the principall differences of wine. As concerning the colour, ſome is white, ſome of a light, ſome of a ſad yellow, ſome betwixt red and white, like to the colour of honie: other ſome of a deepe red, and others of a pleaſanter red, blacke, or darke ſhadowed.

White wine generally is of a thinner ſubſtance thē the red, it is eaſily concocted & digeſted, it pierſeth ſpeedily through the whole body, worketh

worketh more vpon the veines, but nourisheth lesse. That sort of white wine which is thinne, hot and ful of wine, is concocted and distributed more speedily then any of the rest, purging the blood by vrine: but it offendeth the head most of all, especially French white wine. Water by reason of his coldnes, and red or darke shadowed wine by reason of his thicknes doe slowly passe away by vrine. The contrarie is found in white wine, especially such as is of a thinne substance and which is hot. That which is of a deepe yellow, or somewhat inclining to a yellow hath his vertues, approching very neere to those of the white wine.

Red wine, or darke coloured.

Red wine is wont to be more slow of concoction then all the rest, as also to be distributed throughout the whole bodie, or carried away by vrine, because it is of a grosser substance then any of the rest, but yet to recompence these discommodities withall, it nourisheth more, and offendeth the head lesse. The lighter red wine holdeth the meane and middle catch of all the rest. White wine which is of a thin and waterie substance without any verdure or sharpnes of taste, such as we haue great store of here in our countrie, is likewise of an easie digestion, and quickly passing and distributed through the bodie, and yet notwithstanding hurteth not the head, neither increaseth any great store of heate, in so much as that this kinde of white wine is more wholesome and safe both for the sound and sicke, then the white wine which is thinne and full of wine in taste, especially in persons that are fat and full bodied, because it nourisheth the least of all the rest. *Galen* is of iudgment, that red and thicke wines are turned without any great paine into blood, and so next vnto them the blacke or deepe red and grosse wines, if so be they be accompanied with some small smatch of sweetnes: and next vnto these which are of a light red, those which are of a deepe red, thicke substance and astringent facultie, not for that they can be digested more easily, or distributed more speedily, then white or yellow wines, but because that being once concocted in the stomacke, and sent vnto the liuer, they are easily changed and turned into blood, notwithstanding they seeme not the least remooued and differing from the nature of the same. For white and yellow wines of all other are woont to be the speedilest concocted in the stomacke, and to be conueied vnto the liuer: but they yeeld lesse store of blood then those which are thicke and red, and so do fat lesse. Wherefore yellow wine or the redlike wine being of a thin and pearsing substance, by how much it approcheth the neerer vnto the faculties of thin white wine, by so much it begetteth the thinner and more fluent blood, and therewithall hot if it be hot, or temperate if it be waterish and weake, such as the Grecians vse to call *Oligophorum*, which signifieth a wine admitting but small quantitie of water to be mixed therewith: yea a reasonable colde blood, if it bee yet somewhat greene and vnripe. But the deepe red wine which is harsh and rough,

rough, whereas for his thicknes it is profitable to comfort the loose and wearish stomacke, but nourisheth not much: so in like manner it increaseth and redoubleth the obstructions of the liuer, spleene, and reines, as also it maketh a thicke, feculent and melancholicke blood, and so withall begetteth manie melancholike diseases. The red wine that is somewhat cleere and thin, seemeth to hold of both, and so standeth as a meane betwixt them both. Wherefore *Dioscorides* following the opinion of *Hippocrates* hath rightly saide, that deepe redde wines were thicke, and of hard concoction and digestion: For all thick wines, whether they be of a deepe or light red, do nourish (to speake the truth) aboundantly, and fat the body, but they put the stomacke to more paine in concocting of them, then those which are somewhat cleare and of a thinne substance. Furthermore, they being of hard digestion and distribution, and not easily passing away by vrine, through the long and continuall vse of them, they ingender flatuous swelling and windines in the bellie and bowels. Wherefore yellow and white wines, that are of a subtile substance and very ripe, are to be better accounted of, and esteemed as more wholesome for all such as haue neede, or desire to be heated, as old folkes, flegmatike and melancholike persons that be colde of nature, as also for them that leade their liues in idlenes, in colde countries, and cold seasons, as in winter, heaping vp great store of superfluities and rawe humors in the veines. For they are likewise more profitable for the furtherance of concoction to be made in the stomacke, liuer, and veines, then those which are waterish or sweete: but very many times they offende and hurt the head and sinewes, and make a full braine: for this cause they are enimies and contrarie to such as are hot by nature, or haue a moist braine, or their sinewes and ioynts weake and subiect to destillations: for vnto such bodies the wines that are a little red and somwhat astringent are farre more meete and conuenient, because they be not so fuming, and therefore doe not charge the head so heauily. But as for deepe red wines, they are most fit and conuenient for diggers and deluers, husbandmen, dressers of vines and others which liue a toilesome and painefull life. Wherefore white wines, yellow, red, or claret, and of those onely such as are of a subtile substance, delicate and watrie, (called of the Greekes ὀλιγόφορα, which is to say, admitting but small store of water to be mingled with them) are harmelesse to all and to be vsed with all safetie and securitie.

The white and yellow, or redlike wines which are of a thinne and subtile substance, together with the claret, weake, waterie, rawe, and greenish, being of a cold and moist temperature, (such as are very vsuall and common in the grounds about Paris) do nourish the body very little, and are harder to be digested, then those which will beare but a little water, but they coole and moisten more then the rest, and

where

where as they nouriſh but a little, they are ſaide on the otherſide to make the body leane. They bring not any detriment or harme vnto the head, liuer, reines, or bladder, but being long vſed, they hurt the ſtomacke, bowels, matrix, and ſpleene very much: and which is more, are profeſſed enimies to all ſuch as are colde and moiſt by nature, and eſpecially vnto old folkes. Contrariwiſe they are ſomewhat profitable for hot and drie natures, & if naturall heate be ſtrong, they paſſe away, and are euacuated eaſily by vrine, and this is a thing that is common to all greene wines which are of a ſubtill ſubſtance. The like iudgement is to be had of diſeaſes, for as they are tolerated with all ſecuritie in hot natures, ſo in like manner they prolong and increaſe colde diſeaſes. And thus ſufficiently as it ſeemeth vn to me, concerning the nature, qualitie, and vſe of wine, gatheredfrom the colour thereof.

As concerning the reliſh. Some wines are ſweete: ſome ſharpe: ſome bitter: ſome rough and harſh: ſome ſower and tarte, and both of them aſtringent: others of a mixt nature, betwixt ſweete and rough: others greene or greeniſh, and theſe are very comm on and vſuall in the grounds about and belonging to Paris.

In generall, all ſweete wines, whether they be white or red, doe nouriſh more then other, heate indifferently, prouoke thirſt, ſwell and ſtop through the much vſe thereof the principall parts, but the liuer and the ſpleene more then all the reſt, eſpecially if they be groſſe and thicke, for looke how much the thicker they be, ſo much the more vnholeſome they are. Sweete wine (ſaith *Hippocrates*) doth leſſe burthen and charge the head, then that which is ſtrong and full of wine, it leſſe offendeth the vnderſtanding alſo, yea it looſeth the belly, but it is not good for ſuch as abounde with cholericke humours, for that it prouoketh thirſt and windineſſe: true it is that it is good for ſuch as are much troubled with the cough, becauſe it raiſeth vp flegme the more eaſily in all ſuch, except they be ſubiect to thirſt and drine ſſe. *Sweet wines.*

Sweete white wine is of a thinner ſubſtance, then ſweete red wine. It helpeth ſpetting more then any other, ſo that it bee not too groſſe and thicke: for it concocteth rawe flegme in the breſt, it ſmootheth and maketh plaine the roughnes of the inward parts, and in that reſpect is profitable for the lungs, reines, or bladder being rugged or rough: but in the meane time it hurteth the liuer, becauſe that as I haue heere while ſaide it ſwelleth and puffeth it vp, and cauſeth obſtructions therein. It cauſeth thirſt likewiſe in hot and drie natures, becauſe it maketh obſtructions, and is eaſily turned into cholericke matter, as all other things are which are ſweete. Notwithſtanding, it procureth drunkennes leſſe then any other, in as much as it offendeth the head but a little. *Dioſcorides* hath ſpoken very rightly thereof, ſaying, that ſuch ſweete wine is of thicke ſubſtance, that it paſſeth not *Sweet white wine.*

so easily through the body, and that therefore it nourisheth more then that which is of a thinne consistence and substance. Hee saith further, that it swelleth vp the stomacke, and like the liquor of grapes before it haue wrought, it looseth and troubleth the belly and inwarde parts. And this must be vnderstood of sweete wine, which is not come yet to his full ripenesse: and not of that which is thinne, cleare, ripe, and alreadie throughly concocted. Which kind of sweet white wines are sent hither in great aboundance from the countrie of *Anion*, and they hold their sweetenes two or three yeeres.

Such sweete white wines are not so hurtfull as those which are not ripe, or which are thicke: they prouoke vrine sufficiently, loosen the belly, and moisten. Wherefore you must diligently and wisely discerne and distinguish the sweete wine which is crude and vnconcocted, from that which is alreadie ripe and fit for to be vsed.

All sweete white wines doe nourish abundantly, but yet more or lesse, according to the proportion of their thicknes & grossenesse, and for this cause such as haue neede of restoratiues must vse sweete wines, especially if their reines, liuer, and spleene stande sound and free from all infirmitie. For when the principall parts bee obstructed, and the veins full of grosse blood, then wine that is of a subtile substãce is most needefull and profitable: when the veines are replete with colde and grosse bloud, then sharpe, strong, and mightie wines are more conuenient: If the veines be full of hot and thicke bloud, the wine that is sharpe and olde is not good, but rather a claret or white wine that is very watery, yea, and somewhat greenish if the stomacke will beare it, and the soile of the countrie permit it.

Galen's iudgement of white wine.

Galen affirmeth that no white wine heateth greatly, and that such as heateth much, cannot be sweet. And yet notwithstanding there are brought vnto vs out of hot countries many white wines that are very hot. And we haue likewise sweete wines partly growing in our owne countrie of France, as at *Longiumeau*, and *Tonnerrois*, called white beaten wines: partly brought from the countrie of *Anion*, excellent good, and very hot, which in taste resemble the sauour and relish of a Hyppocras made of white wine, and will holde and continue sound and perfect good, three, fower, yea sixe yeeres. In Greece their white wines are not founde to be very pleasant & sweet, as in this our countrie there are not to be founde any red wines very pleasant, except vpon their new pressing out. Notwithstanding the countrey of *Bordelois* doth furnish vs with sufficient quantitie of red wines, that are very sweete, but they are all of them of a thicke substance, and their iuice or liquor breedeth very many obstructions.

Rough and harsh wines.

Harsh and course wines do procure vrine more then the sweete, but lesse then such as are of a middle kinde betwixt both, and yet againe, those which are tart and sower, doe also prouoke vrine more

weakely

weakely then those which are of a middle temper. The rough and course wine doth corroborate the stomacke and principall parts by his astringent faculties, prouided that the stomacke be furnished with sufficient strength and force of heate, for otherwise in a colde and weake stomacke it prooueth for the most part to be hardly concocted and digested. Of all other wines it least hurteth the head, but therewithall it prooueth to be the slowest in distributing it selfe abroad into the veines and substance of the bodie: for which reasons it falleth out to bee vnfit to bee vsed in swoonings, sodaine faintings, and all other feebleneſſe, looseneſſe, and languishing of the strength, as also where there are any notorious obstructions in the principall partes. But which more is, it bindeth the belly, or else looseth it not sufficiently.

Greene wines.

We haue spoken of greenish white wines, whereunto the reddish greene wine hath like qualities, especiallie if it bee of a thinne substance and waterie, and yet more if it be thinne, waterie, and pale.

Generally the greene or raspe wine, in as much as it containeth more water then wine, nourisheth the body but a little, is of hard digestion, & so it moueth windineſſe and wringings in the belly, because it is of a colde temperature. Hence it commeth that old folkes, colde and moist natures, and such as haue weake stomackes receiue damage by it: and next vnto these, such women as haue not their termes aright, and are subiect to pale and warth colours. Notwithstanding it passeth away speedily by vrine, because it is thinne and annoieth not the head: and for this reason it is very profitable for all hot and moist natures, as for yoong folkes, which haue a boiling and burning bloode in them, if their stomacke be in good state, especially in sommer time: for which respect, being delaied with a sufficient quantitie of water, it will serue very fitly, (in like manner as the wine called of the Greekes *Oligophorum*) in all such agues as wherein wine may be permitted, saue onely that it is somewhat hard of digestion, and causeth many obstructions. Such greene wines, as together with their greeneſſe are astringent or sowre, are without comparison more hurtfull then any other enery waie, and in all respects, because they hardly ripen, and concoct, ingender obstructions, and passe very slowly either by vrine or stoole. Notwithstanding, they become ripe in time, if they be let alone in cellars till the rawe and crude parts thereof be ouercome by their owne proper and naturall heate. But it shall not seeme to exceede the boundes of reason, if we discourse somewhat more freely of the verdure of our wines, to the end we may be able to discerne and finde out that which is in wines by way of purchase, from that which is naturally in them. *Galen* writeth that the astringent qualitie in wines is separated and remaining apart from their verdure, as their goodneſſe is from their badneſſe: besides, it is very likely, that in hot and drie

countries, there are not any greene wines growing naturally, but in this our countries of France, there are many greenish wines pressed out from grapes that are not yet ripe: but especially in cold and moist yeeres, some which are very thinne and waterie: others more thicke and grosse, and by that meanes either astringent, or else rough and harsh: strong and mightie wines if they bee neuer so little tainted with greenenesse, presently they become sowre, & altogether vnmeete to be drunke. But such as being pressed out from grapes, scarce halfe ripe, differ not much from the greenenesse or sharpnesse of common veriuice, if they be not concocted by little and little through a strong and forcible heate, contained in their crude and rawe matter, and so in the ende become ripe, their greenenesse being by little and little diminished: and such are not passing of a yeeres continuance, seruing rather for the rude and homely people, then for daintie and delicate personages. For certaine all greenenesse in wine is a fault in those wines wherein it is: but yet that is the woorst of all the rest which hapneth vnto wines sometimes good and commendable, either by being kept too long, or else by hauing beene ill kept, or otherwise by some other occasion: lesse dispraiseable and hurtfull without comparison is that which hapneth in our French wines, which by the weakenesse of the heate of the sunne, comming short of their sufficient concoction, become greene from their first originall and growth, as they which are greene, by reason of the greene and vnripe grapes, from whence they are pressed. For such greenenesse as hapneth vnto wines once good and commendable, is hurtfull vnto all men, and cannot be redressed, thereby making such wines vnfit to be imployed about any other vse then either for medicine or sauces: whereas that which is borne and ingrafted into such greene wines, if it be not suppressed and digested by naturall heate, becommeth onely hurtfull to colde and moist constitutions and old folkes: but not vnto strong, lustie, and hot natures, neither vnto them which are accustomed to trauaile, and to auoide idlenes. You shall find many harsh, rough, and sower wines which are also greene: and in like manner you shall finde somethat are greene and yet not rough and course. Such as are rough and greene, through their vehement astringencie, do close, shut vp, drie and dul the throat, toong, and other partes of the mouth: whereas such as are simply greene, doe not the like, but coole them onely. The rough and harsh wines in as much as they are raw and crude, and cannot be concocted and digested of their naturall heate that is but weake; yet they close and binde the stomacke, and by such occasion, stay the fluxe of the bellie. Wines that are simply greene, doe not the like, if they be not harsh, rough and astringment withall: and they doe rather annoy the stomacke, and all the membranous and nernous partes, by reason of their cooling propertie and qualitie, which being situate in a thinne

and

and subtile matter, and therefore apt to pearse deepely into the parts, and by their qualities prouoking and disquieting the substance of the said parts, doth corrupt and dissolue the laudable temperature, force, and constitution of the said stomacke, and of the said membranous and sinewie parts. Whereupon it ensueth that such greene wines doe for the most part cause crudities, wringings, and the fluxe of the bellie, manifolde obstructions of the liuer & spleen, besides the disease called the Hypochondriake melancholie. *Galen* denieth that wines which are hard and greene doe heate at all, and that the sower, rough and harsh relish doth actually consist in a meane matter, participating both of the waterie and earthie elements: but that the hard, greene and sower relish doth consist in an earthie & drie substance, which doth not manifestly participate of the water or any moisture. Whereby it may manifestly appeere, that neither the one nor the other relish hath any heat ruling in it, but colde, and that in the tart, harsh and rough relish accompanied with moisture, but in the sower with drines. But for as much as wines are seldom consisting of one only simple & pure relish, & that all wines (of what taste or relish so euer they be) are in temperature hot and drie, you must vnderstand that sower and harsh wines are accounted cold or else not hot, not simply but by comparison, because indeede, they heate lesse then other wines, and that not quickly and so soone as they be drunke, but in the end and after some continuance of time: for otherwise the opinion of *Galen* were not to be receiued, seeing that we obserue and see euery day, that all sortes of wines of what taste or relish soeuer they be, be they hard or harsh, doe heate manifestly and make men drunke sooner or later, if they be receiued into a hot and strong stomacke, for their heate as a thing buried in crude and raw matter, although it be a long time first and with great difficultie, breaketh foorth at the last, manifesting it selfe in the end, and bringing foorth the fruits of his maturitie: and this we may finde in our French wines, which nourish, maintaine, recreate, yea and make drunke the husbandmen, vine dressers and other persons of poore handicrafts vsing to drinke the same. But let this suffice which hath beene said of the naturall taste and relish of wines: and now let vs search out the causes of the sowrenes or tartnes, incident to good and commendable wines. Some thinke that wines grow sowre through heate, because that daintie, weake and feeble wines are changed and turne sower in the spring time and sommer, and in winter retaine their naturall qualities intire and sound. This opinion is confirmed because that weake wines being stirred and tumbled in forcible sort, or carried far, or laid in cellars that are open vpon the south or easterne quarter doe quickly become sower. And contrarily such as are not tossed to & fro, or remooued, but kept in cellars lying vpon the north, do not sowre at all: as if it were by the cold that their vertues and good qua-

The cause of sowrenes in wines.

lities were preserued : and by the heate, that they were changed and corrupted. So as the like in all points doth befall wines which are weake and wateriſh, to that which happeneth vnto a burning candle and to ſmall and weake ſparkes of fire, which if you lay open in the hot ſunne, or before any great and vehement flame, you ſhall ſee them languiſh, yea waxe darke, and altogether to fade away and goe out. It is then through heate, that all the weakeſt wines turne ſower, and that by hauing their weake heate ſpent and ouercome, by an outward and accidentall heate which is more ſtrong, cauſing the ſame to fade and for the moſt part vaniſh quite away. For a weake nature cannot indure, either any ſtrong heate or vehement motion : but fainting vnder them, it becommeth waſted and ſpent, and in fine periſheth. But contrariwiſe wines which haue their heate ſtrong, and conſiſt of ſuch matter as is not eaſie or apt to be waſted and ſpent, being remoued, rolled, tranſported, or els laid open to the ſouth ſunne, or kept in any hot place, doe not onely not ſower quickly and in a ſhort time, but rather become a great deale the more ripe, and are made more readie and better to be drunke. For that which befalleth through long continuance of time to ſtrong, mightie, and noble wines, which are ſhut vp and laide in colde caues vnder the earth, by the means, power, vertue and efficacie of their owne and naturall heate, which concocteth, digeſteth and ripeneth by little and little their crude and rawe matter : the ſame is effected and wrought in a ſhort time in wines which are heated by arte, that is to ſay, by ſtirring and rowling ; and by the heat of the ſunne or of ſome fine ſubtill fire, which doth concoct and digeſt the moſt crude and rawe matter that they can bee founde to haue. For as the induring of the heate of the ſunne, and the vndergoing of vehement exerciſes maketh ſtronger and more able the bodies of men that are hot and luſtie, but on the contrary doth ouerthrow, weaken, diſſolue and coole weake bodies : euen ſo hot wines are ſooner ripe, concocted and digeſted, by heate or mooning either of the ſunne, or of ſome hot fire made neere vnto them : but thoſe which are more weake and waterie, if you heate them ouermuch, doe take great dammage and harme, and are weakned more by the working of ſuch vehement heat, either of the ſunne, ſtirring, or fire which corrupteth and ſpendeth at once and in a moment, ſome part & portion of their weake and feeble heat, which afterward in like manner by little & little will be ouercome and waſted, and therupon ſuch wines weakned and made vnſauorie. It is the meane and middle heat therefore that all things receiue profit by : ſeeing the immoderate and extreame is no leſſe harmefull then colde. Wherefore after that the weake heate of wine ſhall for the moſt part become waſted and ſpent, by the outwarde heate of the aire compaſſing it round about, it groweth ſowre, and ſo likewiſe it is woont to fall out, by the maliciouſnes

of

of ſtrong and pearcing colde breaking the hart of the weake heate in the wine, and thereby killing the ſame. For when the ſaide heate is quite ouercome and baniſhed, ſo as that the wine looſeth his fragrant odor and pleaſant ſent of wine, it is not ſaide to ſowre, and therefore not called vineger, but indeede is called by the name not of wine, but of decaied and ſpent wine, which the Latines call *Vappa*. Furthermore, whereas amongſt waterie, weake, and feeble wines, there are ſome rawe and greeniſh ones, which we haue declared alreadie to be enimies vnto colde and moiſt natures: and other which are neither raw nor greeniſh but delicate ones and throughly ripe, but therewithall of a thinne and ſubtile ſubſtance, and which for their eaſines to be concocted and ſpeedines in being diſtributed become very good and profitable both for ſounde and ſicke, and are called of the Greekes *Oligophora*, becauſe they will not admit the mingling of any great quantitie of water with them: the firſt may without any iniury offered vnto their ſtrength abide to be ſtirred and carried to and fro, eſpecially if with this naturall greennes, there be ioined ſome harſhnes and roughnes. But the ſecond cannot indure to be remooued or carried to and fro: the reaſon is, the heat of the firſt is hid and lieth in a crude and rawe matter, whereof it ſtandeth it vpon as much as lieth in it, to acquite and rid it ſelfe, a readie helpe whereunto is the mooning and ſtirring of the ſame, becauſe heereby it is inabled the ſooner to ſhew foorth it ſelfe, and to manifeſt his force in more powerfull and cheerefull manner then before, becauſe the crude and raw matter wherein it lay, as it were couered and hid, is become refined and concocted in proceſſe of time. Contrariwiſe, the weake heate of the ſecond ſort, which conſiſteth in a thinne matter or ſubſtance, and that alreadie concocted, is ſpent and ouerthrowne with the leaſt motion and heat, and therefore doth very eaſily euaporate and breath out all his force and ſtrength. It ſeemeth that the opinion of *Galen* and other ancient writers, affirming that no greene wine doth heate, muſt be vnderſtoode of this ſecond ſort of wine called of the Græcians *Oligophora*, for that it is poſſible that the olde writers neuer knewe, neither euer heard tell that any greeniſh wines were naturally growing in places and countries that are hot and ſcorching. Certainly there is great difference betwixt that tartneſſe or ſowreneſſe which is an accidentall vice or fault in wines, and that greenenes or ſharpnes which is a natural taſt and reliſh in them, preſſed out either from grapes naturally greene, or elſe from grapes which haue not as yet growne to their full maturitie and ripeneſſe. For the tartneſſe of wines beſides the great ſharpenes and acrimonie therin, being ſuch as is in vineger, whereby it diſquieteth and offendeth the ſtomacke, membranes, and all the ſinewes is likewiſe of that nature, as that it cannot by any skill or cunning bee ſubdued and corrected in ſuch manner as that the wine once tainted therewith,

That there is great difference betwixt ſowrenes and greenenes in wines.

therewith, can at any time be restored vnto his former goodnes, and made such as may bee drunke without the preiudice and hazarde of mans health. But on the contrarie, the greenenes which continueth in wines as bred in them, besides that it is alwaies free from the foresaide sharpnesse and acrimonie, is founde not to continue anie long time, in as much as the raw and colde matter, wherein the heate of greene wine consisteth, is concocted by little and little, and thereupon this heate (thus as it were buried in this crude matter) doth by little and little growe strong, and sheweth foorth his force more effectually, so that the saide greennes is by degrees diminished and wrought out, and the wine made a conuenient and profitable drinke for the vse of men: yea, and that also euen where this greenenes through the weakenes and imbecillitie of heate cannot any white be wrought out and taken away, for so wee finde it, seeing that greene wines are not refrained, but ordinarily drunke and vsed.

Dioscorides was of iudgement, that sowre and rough wines caused headach and drunkennes, whereas our harsh and rough wines, the rougher they are, do offend & annoie the head so much the lesse. And for a certainetie, all manner of drinke by how much it is the more odoriferous, and of a thinne and subtile substance, so much the more it disquieteth and disturbeth the braine with his vapours, and ministreth larger matter for the nourishment of rheumes and distillations. Notwithstanding, if sower and rough wines do happen once to cause drunkennes, then such drunkennes falleth out to bee of the woorst sort, & most rebellious and hard to be ouercome. So then all our sowrish, harsh, and rough wines, such as are those of *Burgundie*, as they are nothing so odoriferous, so neither doe they cause any whit like so manie exhalations and vapours, and therefore also do they lesse offende the heade, and procure drunkennes then any others: And so as that *Galen* hath therefore testified of them, that they ought to be well accounted of and esteemed profitable and fit to be vsed of such as haue the goute, as also of all others which are subiect to the distillations of the braine.

What wines are to be called bastards.

Such wines are called mungrell or bastard wines, (which betwixt the sweete and astringent ones) haue neither manifest sweetnes, nor manifest astriction, but indeede participate and conteine in them both the qualities.

Of the consistence of wine.

The consistence of wine.

As concerning the consistence of wine, some is of a thinne, subtile, and cleere substance, and othersome of a thicke and grosse: and some of a meane and middle consistence betwixt both. Of those which are of a thinne and subtile substance, some are weake and waterish (which the Græcians call ὀλιγόφορα, that is to say, not admitting the

the mixture of any quantitie of water, of which wee will speake more amplie heereafter, being (as it were) like vnto water in thinnes and colour, and hauing little or no sent in them, neither yet any manifest heate. They nourish but a very little, for there is but a very little of their substance turned into bloud. But they cause great store of vrine and agree better then any other wines, with all sorts of natures if we may beleeue *Galen*. There are other weake, watерish, and greenish wines, verie ordinarie in this countrie, which are hurtfull vnto olde men and all other colde constitutions, as hauing in them verie small store of heate: and yet sometime profitable vnto hot constitutions, as in sommer, according to our former aduertisement. There are others that are very good, but hot and strong, of an easie concoction, and speedilie distributed, but nothing lesse vaporous then white wines, whereupon they trouble the braine, and make men drunken, and so prooue hurtfull to such as are rheumatike and subiect to distillations: Such wines are brought hither out of *Gascoignie*. very well pleasing princes, and men of great estate, all of them being of a yellow colour, either deeper or lighter. The wines of *Ay*, as they are inferiour to them of *Gascoignie* in strength: so they are better, and without comparision more wholesome.

The grosse and thicke wines, some of them are simplie such; and consist in a mediocritie, and othersome are very grosse and thicke. We haue heeretofore declared that grosse wines are of a more hard concoction, and slow digestion then other wines are; but being once cohcocted and digested, they yeeld a more firme and solide nourishment vnto the bodie. And of them more then the rest, such as are very grosse and thicke, which for certaine are hardest to be concocted and digested of all others. These sorts of wine, for that they ingender manie rebellious and obstinate obstructions, are not fit to be vsed but of dressers of vineyards, and such other as leade a toilesome life, as wee haue declared before. Such wines as are indifferent thinne, and indifferent thicke, are profitable for many purposes, and the rather in that they charge not the head as the strong wines doe, and those which are of subtill substance: neither yet ingender obstructions, as those which are thicke and grosse doe. The wine called of the Græcians *Oligophorum*, is the holesomest of all others.

Wine smelleth well, or els nothing at all: the odoriferous wines are verie apt and commodious for the begetting of good humours, and to recreate and fetch againe the powers of the body, but they assaile and charge the head, especially if it be of a subtile substance, and of a reddish or yellowish colour, or of a deepe yellow: they are also more hot then the other sortes of wines. For that which is such doth helpe very much for the making of concoction easie, and for the begetting of fine and subtill blood, but it filleth the head full of vapours

The sauoure or smell of wine.

and

and heate, and greatly offendeth the sinewes and vnderstanding. Whereupon it prooueth very apt to cause headache, and a world of rheume. The wine that hath small or no smell, no not any more then water, is called watrish. Such vtter depriuation and want of smell in wine, is a mightie note, and most certaine marke that the same is but a weake and cold wine: as the strong and mightie smell of the same, is a very notable signe of his force and strength. Such wine as is neither of an ill smell, neither yet without smell, but hath a certaine stinging and vnpleasant sent, which it hath gotten either of the soile, or of the vessell, or by some other occasion; is not good for any body. For as nothing (as *Columella* testifieth) draweth to it strange and vnnaturall sents more speedily then wine: in like sort nothing imparteth or communicateth his hurtfull qualities sooner to the heart and noble parts then wine when it is drunke.

The vertues of wine.

Amongst wines some are generous and noble wines, and therefore said to be full of wine, contrarie to those which are watersh, and admitting the mixture of much water: these heate much, hurt the sinewes, make a full braine, stirre vp frensies, mightily increase the heate of agues, and to be breefe, they are not delaied with a great quantitie of water, and doe good but to a few. There are other which are weake

Weake wines.

and for this cause called *Oligophora* and waterie: these wines are of two sorts, some greenish which haue a sensible cooling facultie, fitting cholericke stomackes and hot countries, if so be that a strong stomacke can beare them, and of these we haue spoken before: others which are waterie and of a thin substance, not retaining any smell, but agreeing with all natures, be the stomacke neuer so weake, and especially with those which are often tormented with the megrim or long continued headach: they comfort concoction, prouoke vrine and sweate, and offend the head nothing at all: more harmelesse then any other sort of wine, they may be permitted to such as are sicke of agues, for that they cannot be said to be of any manifest qualitie, as other wines may. For they are neither sower, nor astringent, neither yet sweete or sharpe, nor yeelding any kinde of smell. Of these kindes of wine, some (as *Galen* saith) grow in euery countrie and coast, but much more in this of France then in any other, the greatest part whereof doe participate a certaine greenenesse, especially when the yeeres fall out colde and moist. Such wines are called of the Grecians Ολιγοφορα. They are not any way noisome or hurtfull to the head, but very profitable, because (as *Galen* saith) they asswage and take away headach, rising of the cruditie of the stomacke: that is to say, when the stomacke being weakened, and as it were relaxed by the eating of some hurtfull victailes, or by the drinking of some such like water, is made the receptacle of some offending humour, flowing thither from the whole bodie. Which offensiue humour so contained in the stomacke becom-

meth

meth corrupt, and from that corruption ſendeth vp burnt and aduſt fumes vnto the braine, which cauſe like paine in the head, to that which commeth of faſting: and from theſe annoiances the head is deliuered by the vſe of this wine, which by and by tempereth theſe putrified fumes, eſpecially if the wine haue any aſtringencie in it, whereby the ſtomacke may be fortified and ſtrengthened. For ſuch wines doe by and by driue downeward that which is hurtfull in the ſtomacke, carrying it along with it ſelfe and caſting it forth: and therfore very auailable for ſuch as liue a loitering and ſitting life, and apply themſelues wholy vnto the reading and ſtudying of good authors.

The differences of wines, according to the properties of the countries.

It remaineth now that we briefly diſcourſe of the wines which we vſe in *Paris*, and thoſe ſuch as are either growne there, or brought thither out of other countries & regions. The French wines offer themſelues in the firſt ranke, which growing in the groundes and borders neere about *Paris*, and the whole Ile of France, and other places adioyning thereunto, are amongſt all others, and aboue all others beſt agreeing with ſtudents, citizens of townes: and to be briefe with all ſuch as liue a quiet, idle, and reſtfull life, eſpecially thoſe which are made in well ſeaſoned yeeres, or ſuch as ſhewe foorth their ſeuerall qualities euerie one in his proper and due ſeaſon. For ſuch wines doe not heate, burne, and dry the inward parts of the bodie, as the wines doe which are brought vs from *Gaſcoigne*, *Spaine*, and other countries more hot, which by reaſon of exceſſiue heate and too great drineſſe, doe burne the liuer and ſpleene in ſuch as drinke them. Such wines do not make a replete, heauie, or offended head with multitude of vapours as other wines of *Orleance* doe. In like manner ſuch wines doe not load the body with ſuperfluouſnes of ſerous excrements as doe the crude and greeniſh wines, which grow in theſe groundes in cold and moiſt yeeres, or which are brought vs hither from other cold regions and countries. Such wines likewiſe ingender no obſtructions, neither doe they gather anie quantitie of melancholicke humour, as doe the thick and red wines, which are ſent vs by ſea from *Burdeaux*. Theſe wines when they be through ripe, they are of a very pleaſant taſt, eſpecially ſuch as are yellow, claret and white, which are of a hot and drie temperature as other wines, but not aboue the firſt degree or the beginning of the ſecond: one the contrarie the wines of *Spaine*, *Gaſcoigne*, and others ſuch like are hot and drie in the end of the third degree. Wherefore theſe our French and natiue wines ought to be preferred before all ſtrange and forraine ones, ſeeing they burne and heate the bowels and inward parts ouermuch, and that as well for the vſe of ſuch as are in health, as of thoſe that being ſicke are yet permit-

ted

ted their wine. Amongst these our French wines some are white, othersome are of a deepe yellowe commonlie called clarets or reddish wines, which are the most wholsome of all, so that they be not accompanied with any sowernes and harshnes, for rough and harsh wines, and others which are greene, if they become not ripe and mellow in time, by the concocting of their cruditie and greennes, they stand for things not fit to be vsed of any but rude & rusticall fellowes, which liue by toiling their bodies with great labour and trauell. The rest are all red more or lesse. But of all other French wines, there is very small store of sad and light red coloured ones.

White claret wines being bright, cleere, and through ripe or mellow, in as much as they are of a subtile substance are easily concocted, digested and distributed, they prouoke vrine, nourish the bodie but a little, but they reioice the spirite, and are for the same cause taken, longed after and desired of all. Some of them are readie to be drunke the second or third moneth: othersome not before the seuenth or eight moneth. All of them begin to fade and loose their goodnes in the beginning of the second yeere. The red, although they be bright and cleere, are not of so subtile a substance as the former, and therefore they nourish more, and are more fit for such as liue hardly, then for such as liue delicately and nicely: and what although they cannot be so easily concocted and digested, nor so speedily distributed, neither yet cause such abundance of vrine, as those which are yellow, claret or white: yet trauell, often exercises and labour doth ouercome all these inconueniences, yea and whatsoeuer greater that such red wines may ingender and breede. Amongst them, those which participate and haue any sowernes or astriction, become not mellow before the sommer heate, whereupon it followeth, that the second yeere, their crude and raw parts being concocted and digested, they growe to be more excellent then they were in the first.

The deepe red and vermillion coloured are for the most part harsh and rough, and so the most vnpleasant and vnwholesome of all other: for that they are woont to be ill concocted and digested, and slowly distributed, as also to ingender many obstructions, and beget a grosse and melancholicke blood. And for these causes are not conuenient but for such as labour & leade a very toilesome life, in whose bodies they being once concocted and digested, doe nourish very much, and make them more strong and lustie to goe about and finish their worke, and therewithall corroborate their stomacke.

Of white French wines, those are most accounted of, which are cleere and bright as rocke water, of a subtile substance, neither sweet nor greene; such doe nourish the bodie a great deale lesse then the yellow and claret wines, but in recompence thereof they are more easily concocted, digested, distributed and carried more speedily and readily

readily through all the veines. True it is that they are accompanied with this inconuenience, namely that they doe more assault the head, (and therefore are to be accounted greater enimies vnto goutie persons, such as haue weake braines, and are subiect to rheumes and diseases of the ioints, and such likewise as haue weake ioints) then the red which are not yet come to their liuely hood and maturitie, which strengthen & corroborate the mouth of the stomack by reason of some easie astringencie that is in them. Such as in the first moneths become somewhat sweete, if they be kept any time, in the end grow so concocted and ripe, that hauing left their sweetenes, they prooue strong, mightie and most excellent wines.

Greene wines whether they be white or red, (such as we oftentimes see in these countries, especially in cold and moist yeeres) if they containe any strong heate as it were buried in their crude and rawe parts, if they be kept any time, are woont to concoct themselues, and attaine to such a degree of ripenes, as that they are found good, well contenting the taste and pleasant vpon the toong; such as those are which are not simply greene, but together with their greeneneſſe doe taste somewhat rough and sower: the other become spent, faded, and decaied in the beginning of sommer, by reason of the euaporating and waste of their weake and feeble heate. Wherefore you must drinke such wines as are greenish and waterie, not hauing any sharpeneſſe or sowrenes in them, in the beginning of sommer, that so you may be sure that the great sommer heate shall not cause them to fade vtterly and quite fall away, by the spending of their feeble heate caused through the vehemencie of the sommer heate: but those which are greene, rough and harsh, hauing a strong heate couched and lying in grosse and thicke matter, may be kept very securely vnto autumne or harueſt time. Such as are onely and simply greene, are good and fit for seruants drinke, and other such folke as liue hardly and in great labour, as also for all such as feele a fire and extreame heate in the liuer, and other inward parts: for such wines in idle and delicate persons, as also all such as are of a colde temperature, or are growne into old age, doe not onely not become well concocted and digested: but withall ingender a masse of many crudities, and much flatuousnes, become slowly distributed, procure many obstructions, offende the stomacke, entrailes, and matrix: notwithstanding they sometimes appease the paines of the reines, and become soueraigne for the weake heade. And thus much in generall and summarily of the nature, temperature, qualities, and differences of French wines. For the diuersitie which is found in them by reason of seuerall soiles, townes, villages, and great or small boroughs, where they grow, doth in such sort alter and change yeerely through the variableneſſe of the constitutions of the yeeres, as that it woulde bee harde, yea impossible to lay them downe in a certaine

taine and assured description. Notwithstanding the most excellent of and ouer all the rest, are the French wines of *Coussye*, appointed and ordinarily taken for the kings vse. Then those of *Seure*, both of them being red or claret, noble, strong, and mightie wines, most proper and fit for such as are altogether cast downe, and in whome nature is (as it were) wholie spent, falling thereby into many faintings and swounes, whether they bee fallen heereinto by excessiue and insatiable vse of women, or through any other notable and immoderate euacuation. The wines of *Vannes*, *Argentoile*, and *Montmatre*, and all other wines which grow in gravelly or sandie groundes about *Paris*, are the more healthfull. For all these wines in as much as they are of a thinne and subtill substance, without all greene or manifest harsh taste, (especially in hot and well tempered yeeres) keeping their proper and naturall temperature, are easily concocted and digested, speedily and quickly distributed through the veines: and which yet notwithstanding do not much pester the head, and that because they are not very strong, and therefore do not heate much.

The wines of *Burgundie*, which are sent vs from *Sens*, *Auxerres*, *Tonnerre*, *Ioigny*, and *Chablie*, are generally all of them red: manie of them, yea the greatest part of them are in their first monethes astringent and somewhat rough, and thereby do make more solide, binde, comfort and corroborate a lanke and loose stomacke, and so they nothing annoy the braine by any great store of vapours or fumes carried vp from them: by which reason they proue the most wholesome and conuenient of all other for such as haue the goute, and are subiect to haue the distillations of the head falling vpon the inferiour parts. Notwithstanding if you drinke them before they become to their full and perfect ripenesse, you shall well perceiue them somewhat the harder to be digested, and to be more slowly distributed then the French claret wines are.

Wherefore I would aduise men, not to vse them in the beginning of the yeere, but rather in the latter ende, if so bee they bee subiect to the obstructions of the liuer, spleene, and *Mesenterium*, or such as liue idlie, or yet such as are delicately giuen, and haue but little naturall heate within them, as forsooth being the time wherein they abounde with most harshnesse and astringencie: which yet may euen then be very well vsed of them which are accustomed to trauaile and haue a strong and good stomacke. Likewise if you let them ripen and loose by little and little their astringencie and harshnesse, you shall find them as good and pleasant as the French wines: This is the cause why good housholders do lay them in cellars, and reserue them diligently to the end of the first yeere, or to the beginning of the second to sende them into forraine countries by sea: which being so transported proue better and more excellent then they did in France, or whiles they laie

couched

couched vpon their cantling, as men call it, because the carrying and transporting of them, increaseth their naturall heate, as we haue before declared, and causeth it by such motion to growe more ripe and concocted. Notwithstanding, many of those *Burgundian* wines in hot and drie yeeres, are in some countries founde good the first yeere.

Amongst the *Burgundian* wines those of *Beaune* are most highly commended, for they are so good as that I dare bee bolde to preferre them before the wines of *Orleance* and *Ay*, which are so much esteemed of in *Paris*, because they are of a subtile substance, of the colour of a partridges eie, not giuen to fume or fill the head full of vapours, and thereby lesse aflailing the head, and hurting the braine, then those of *Orleance*. Likewise the common verse made of the wines of *Beaune* hath beene alwaies receiued for true and currant.

Vinum Belnense, super omnia vina recense.

Such as take a very good taste of those wines, do compare and match them with the wines of the kings yarde at *Coussy*, whose plants when they were yoong, were otherwise brought from Greece, in such sort as that the wines of *Coussy* and *Beaune* come very neere vnto the goodnes and perfection of the Greekish wines. Some also doe compare the wines of *Beaune* to the wines that grow in the yard of the king of *Nauarre*, which is some fiue leagues from *Vendosme* called *Prepaton*, and this name was giuen it because the plants therein were chosen and taken out of the best in all places. The wine is a claret, of the colour of a partridges eie, of a thinne substance, not fuming or being vaporous, of a pleasant taste, and declicat to drinke, if there be any wine in the worlde so qualified. All these three sorts of wine, of *Coussy*, *Beaune*, and *Prepaton*, are the most excellent that are to bee founde in all France, and that because both in good and euill yeeres they are founde and tried to bee better then any other, and readier to bee drunke vpon. Amongst the wines of *Beaune*, the wines of *Dijon* must be reckoned, and they are those which grow in the kings vineyard at *Chenoue*, *Fontaine*, *Plombiere*, and *Tolent*. True it is, that before a man iudge of the goodnes and qualities of wines, hee must euery yeere consider the estate and constitution of the seasons of euery yeere, as also take a diligent taste of the wines, thereby to giue the more assured iudgement: because it falleth out that sometimes the French wines, sometimes the *Burgongnie* wines, and other some yeeres the wines of *Orleance* doe prooue most excellent, and sometimes the wines of *Anion* prooue better then all the rest. Yea, and as of the number, and to be reckned vp amongst the rest, are the wines of *Ay* and *Isancy*, and doe for the most part hold the first and principall place for their goodnes and perfection, wherein they excell all other wines, and are in all good or euill yeeres founde better then any other, whether they bee French,

Wines of Coussy.

Wines of Prepaton.

Wines of Dijon.

Bourgongnie,

Bourgongnie or *Anion* wines. The wines of *Ay* are claret and yellowish subtile, fine, and in taste very pleasing vnto the palate, and therefore eagerly sought after, for the vse of kings, Princes, and great lordes, being yet therewithall such wines as the Greekes call *Oligophora*, and will not admit the mixture of much water. The wines of *Isancy* are of a middle consistence, and red of colour: when they are come to their ripenes they proove strong and noble wines, in so much as that you may iustly compare them in goodnes with the wines of *Nerac*, notwithstanding they bee so highly esteemed of, and had in request for great personages.

The wines of *Orleance* are set in the first ranke and cheefe place for goodnes and perfection, amongst all the wines of France: Such are red, for the most part, of a middle consistence betwixt thicke and thinne, of a good taste, strong, and profitable for the stomacke and inward parts. They heate more without comparison, and do more nourish the bodie then any French wines, a fewe excepted, as the wines of *Coussy*, and *Seure*. But in the meane time they fill the head and hurt the braine, more then any other, if you continue the vse of them any long time, especially in such as haue a weake braine, and are subiect to cause manifold distillations, as also in those which are subiect to inflammations of the lungs, and disposed by their bodily constitution to fall into pleurisies: yea these wines are worse then any other for goutie folke, as also for such as are troubled with agues, and others which haue their principall and inward parts of a hot and drie constitution, and to them that are troubled with the diseases of the skinne, as the itch, leprosie, benummednes, tettars, wilde fire, scabs, and others such like. But on the contrarie, they are most apt for, and best agreeing with natures and diseases that are colde, and mooued of colde causes, in swounes and faintnes comming of aboundant & excessiue euacuation, by too much vse of women, watching, or other such like causes, and in like manner of them which languish vpon colde and long diseases. And thus much of that which we can iudge to bee in the wines of *Orleance*.

The diuersities of the wines of Orleance.

For as in other countries and soiles, so likewise in the groundes about *Orleance*, the earth doth naturally ingender diuers qualities and faculties in wine. For amongst orhers such as are yellowish, claret, and bright cleare, are accounted the excellentest and best of all: such are they which grow and are gathered neere vnto *Orleance*, in the boroughes of *Sainctay*, S. *Hillaries* chapple, S. *Mesmain* the long, of the *Loyre*, or at *Checy*. Those which grow at the village of *S. de Bouc*, are in good sooth all of them right noble and excellent wines, but somewhat of a more grosse and reddish consistence, which is the cause that they come not to their best till about Easter. The weakest and feeblest are those of *Liuet*, S *Gy* and *Nigray*, which yet are more healthfull

Wines of Sainctay, Saint Hillaries chappell, S. Mesmain and S. de Louc.

healthfull for such as liue idlie and follow their studie; then the wines which are stronger. At *Paris* wee account for very precious those which are brought vs from *Messay*, which although they bee farre behinde in goodnesse and perfection to the best wines of *Orleance*, because they are of a thicke consistence, and cost not much: notwithstanding seeing that by transportation and cariage, they become thinner and more ripe, they are the better accounted of, of the marchants.

Wines of Messay, of Orleance.

Such as grow neere the abbay of Neighbours, are cosen Germans and much alike to the wines of *Messay*.

Orleance wines of the grounds of the abbay of Neighbours.

The white wines of *Orleance* do surrender and partly giue ouer the praise vnto French white wines, which is the cause that they are transported but as little as may be out of the countrie.

White wines of Orleance.

The wines of *Lourye* whih do taste somewhat sweete, are accounted the chiefe of all the rest in that place, as likewise those of *Rebechi*. The wines of *Anion*, such of them as are good, are (in a manner) all of them white and sweete, and for the most part temperate, or hot and drie, when the temperature of the yeere falleth out hot and drie, strong, noble, and mightie; in such sort as that amongst all French wines they keepe the first place for goodnesse. All the while they are sweete, thicke, and vnconcocted, they swell the stomacke & the flanks, stop the veines, swell the noble parts, and prouoke thirst, especially in cholericke natures, and sometimes also they loosen the belly. But when as through their working and boiling vp, they haue cast out all their drosse and dregs, and that they are become sufficiently ripe, concocted, and digested, that is to say, in their middle age, which they attaine vnto the second yeere: as then they become faire, bright, and cleere, as also very pleasant, so hauing lost their ill qualities mentioned before, they get such qualities, powers, and vertues, as are altogether contrarie vnto those which they had at such time as they were sweete, and of a grosse consistence. For they become easily concocted, quickly piercing, sufficiently prouoking vrine, and causing to spit aboundantly. When the yeere falleth colde and rainie, the most part of the wines of *Anion* become rawe and greenish, as by experience we plainly sawe in the yeeres 1576. and 1577.

When the yeere is hot and drie, the wines growing in *Anion* are strong and mightie, and keepe their vertues and qualities intire and whole till they be sixe or seuen yeeres old. But when the yeere falleth out colde and moist, they prooue to be of cleane contrarie qualities.

The wines of high *Normandie*, (I meane not those which are gathered and beaten downe with poles) do somewhat resemble the French wines, when the yeeres fall seasonable and keepe their naturall temperature: such for the most part are of a yellowe colour, but not con-

Wines of high Normandie.

tinuing so any long time, they by and by loose their force; which is the cause that they are easilie digested and quickly distributed and carried along all the veines, without annoying the braine any whit, in as much as they be not strong or mightie, but oligophorous. But when the yeeres fall out colde and moist, the greatest part of them will not keepe well because they be greene, and that in such sort as that their greenenesse cannot be concocted and digested by reason of the weakenesse of their heat, & therefore it behooueth to drinke them in the beginning of the first yeere. The wines which growe in *Compiegne* and other parts of *Picardie*, are of the same consistence, qualitie, and vertue that those of *Normandie* are, and therefore deserue not to be much set by or desired, but when others are wasting.

Wines of Compiegne.

Wines of Nerac.

The countries of *Guyenne* sende vs varietie of wines. The best of thē are those which grow about *Nerac*, which come very neere to the goodnesse of the French wines of *Coussy*, which by reason of their russet colour, are called in the countrie russet wines. In the number whereof are contained the red wines, or sad, and light red: they nourish sufficient abundantly, but in that they make obstructions and increase great masses of melancholike humours, (especially those which are sweete) they must not be vsed but of them which liue in toile and trauaile. Those which are of a thinne and subtile substance, whether they be white, claret, or of a light yellowe, for as much as they haue a very pleasant taste, and are easily concocted, and quickly distributed, they are desired, and much required at the tables of great men.

Let vs conclude then, that amongst all the wines which we vse at *Paris*: as concerning the red, the best are those of *Coussy*, *Senre*, *Vanues*, and *Meudon*: and as concerning the white, those of *Argenteuell*, and then those of *Ay*, *Isancy*, and *Beaune* in *Bourgongnie*, being well ripened. Next those of *Orleance*. As concerning white, the wines of *Longiumeau*, *Palesiau*, *Massy*, *Pont d' Anthony*, then those of *Barsurabe*, *Anion*, and others which are brought vs from *Arbois*, *Gascoigny*, and *Languedoc*. The wines of the grounds neere vnto *Paris*, as of *Villeiuifue*, *Vitry*, and *Iury*, which are white: of *Fontenay* and *Montreuill*, which are reddish: are not to be much set by, because they are greenish, and of an vnpleasant taste. The wines of *Gascoignie* are without comparison more hot and drie then the wines of *Orleance*, and yet they be not so vaporous, neither yet assaile the head so mightily, as I haue prooued that the wines of *Orleance* do.

The wines which Greece, Languedoc, and Spaine doe sende vs, or rather which the delicacie and voluptuousnesse of our French throates cause to be fetched from beyond the sea, such as are sacks, muscadels of *Frontignan*, malmesies, bastards (which seeme to me to be so called because they are oftentimes adulterated and falsified with hony, as we see wine hydromell to be prepared) and Corsicke wines so much vsed

of

o fthe Romaines, are very pernicious vnto vs, if we vſe them as our common drinke. Notwithſtanding we prooue them very ſingular good in cold diſeaſes cauſed of cold humours, without the hot diſtemperature of the liuer, or of any other noble part, but chiefly and principally malmeſey, which we daily note and obſerue to be very ſoueraigne in the crudities of the ſtomacke and colicks, by reaſon of the ſingular force and vertue it hath in concocting of crude and rawe matter, and in diſſoluing of winde and flatuouſnes. But howſoeuer forraine wines, which are fetched from far countries may ſeeme pleaſant vnto our taſte, yet indeede the truth is that we are not to vſe them except it be with as great aduiſe and iudgement as may bee, becauſe that beſides their manifeſt outward qualities, they haue alſo cloſe and hidden ones, which indeed may become familiar and well agreeing through ſome ſympathie, with the inhabitants of thoſe countries, where the ſaid wines grow: but vnto vs they are enemies, by an antipathie or contrarietie which is betwixt them and vs, which are of a ſoile and countrie far vnlike. Which point if we regarde not, we cannot but for the moſt part offend againſt the rules of arte, and commit infinite faults in preſcribing and laying downe ſuch diet, and order of gouernment, as ſhall be for the direction of other mens liues.

Some doe make and compound ſpiced wines which ſomewhat reſemble the foreſaid forraine wines, and that not ſo much for the neceſſitie of life or health, as for pleaſure and the delighting of the ſwallow: of which ſort are the claret, the preparing whereof we haue ſet downe before, and hippoeras, ſo called, not that *Hippocrates* did euer inuent it or vſe it, but (of the mixture and temperature according whereunto the ſaid wine is compounded and made) it is ſo called of the Greeke verbe κρατηρίζω, which ſignifieth to temper. Men ought ſeldome to vſe theſe wines, becauſe that by their vnwoonted heate and great vaporouſneſſe they procure many troubleſome diſeaſes, as the ſquinancie, ſtrangurie, apoplexie, palſie and other ſuch like: notwithſtanding ſuch as feele a certaine coldnes & weakenes in their ſtomacke, may vſe them, not as their common drinke, but ſometimes only, as a remedie or medicine.

And thus in briefe you haue what I thought good to deliuer concerning the qualities and vertues as well of ſuch wines as grow in France, as alſo of them which are brought vs frō ſtrange countries: by the reading of this ſleight diſcourſe the reader which is carefull of his health, may learne to make choiſe of ſuch wine as is fitteſt for his owne drinking, as he ſhall perceiue to be agreeable and profitable, not onely for his nature and diſpoſition, but alſo for his health. As for example, he that hath a very hot and drie liuer, his lungs ſubiect to inflammation, and readie to receiue ſharpe deſtillations from the braine, and his braine very moiſt, ſhall not vſe hot and drie wines, ſuch as are thoſe of

Languedoc, *Gascoignie* and *Orleance*: but he shall content himselfe with some small French wine, somewhat greenish, and which beareth but small store of water. He likewise which hath a cold stomacke, and is subiect to cold and windie diseases, shall vse the wine that is good and haue nothing to doe with the small and greene wines, and for this purpose shall make his aduantage of this our discourse, which will instruct and teach him the diuersitie and qualities of wines.

The end of the sixth booke.

THE SEVENTH BOOKE OF THE COVNTRIE FARME.

The Warren.

The first Chapter.

Of the situation of the warren.

Hitherto we haue as briefly as possibly we could run through whatsoeuer thing belonging to the tilling and dressing of the earth, as gardens, meadowes, arable grounds and vines: now it is requisite, that folowing the order before propoũded, we speake of the warren, of wood, timber trees, parks for wild beasts, breeding of herons and of hunting.

The profit of the warren.

We will begin therefore to describe the warren, the profit whereof is not inferiour to that of the pullaine, pigeons, & other small cattell, which are bred & fed about our countrie farm, but chiefly in respect of the selling of conies, which the good housholder may doe yeerely, and that some yeeres betwixt fourescore and a hundred dosen, beside all those which the Lord of the farme shall stand in neede daily to vse, either for eating in his house, or for to giue away and gratifie his frinds withall. Againe the indeuour, care and paine about a warren is nothing so great, as that which is required in the ordering of other small cattell: for conies stand not in neede to haue any speciall and set gouernour, to take care continually to house, handle, make cleane, heale them when they are sicke, or to dresse them their meate, because that of themselues they builde earthes and little holes to hide and repose themselues in: and feeding they looke not for any thing but that

which

which the earth of his owne accord, without any tilling doth beare and bring forth for them.

Wherefore for the moſt profit of your countrie farme, you muſt prouide and prepare a warren in ſuch place, as hath before beene ſpoken of, that is to ſay, betwixt your corne fields, vineyards and grounds bearing timber trees, if peraduenture you haue not the benefite of ſome vnder wood neere vnto your houſe, where the conies may ſettle themſelues and make their abode. Notwithſtanding in as much as the hunting and taking of conies, which haue their couerts and boroughes in ſuch vnder woodes, is ſomewhat more harde and difficult then that of the warren: and becauſe alſo that conies liuing in ſmall woods multiplie nothing ſo much as thoſe in the warren, and that eſpecially by reaſon of foxes, woolues, and other fielde beaſtes, whereunto they are oftentimes made a pray by being deuoured of them: it will bee better, and for your further both eaſe and profit, to make a warren apart by it ſelfe.

You muſt then for the making thereof, reſerue ſome fiue or ſixe acres of fine duſtie, or ſandie ground, ſuch as is not fat, ſtrong or cloſe, in a high place lying open vpon the ſunne; and not in a mariſh or watrie ground: for together with that, the conie hateth aboue all things moiſture and colde, yet for the conueniencie of her making of her earthes, it is requiſite that ſhe be in a place, where ſhe may dig with eaſe for the making of her bed & couert. This peece of ground ſhall be compaſſed & beſet about after the manner of a parke, with reaſonable high wals to keepe out foxes, woolues, & other wilde beaſts, that they may not iniury or make war vpon this little beaſt. Within this conigre you muſt plant great ſtore of brambles, mulberrie trees and ſloe trees, ſtrawberrie plants, wilde pine trees, hurtle berrie buſhes, gooſe berrie buſhes, mirtle trees and great ſtore of iuniper, for the conie loueth the iuniper berrie aboue all other things: and as concerning herbes, you muſt ſowe (if ſo be the earth bring not forth ſome of it ſelfe) great ſtore of ſowthiſtle, groundſwell, ſuccorie, colewoorts, lettuſes, clary, taragon, thiſtles, turneps, cich peaſe, and other ſuch like for the feeding of theſe little beaſtes. As for the drawing of ſome ſmall brooke, or beſtowing of any water conduit vpon them, you neede not trouble your ſelfe, ſeeing the conie hateth moiſture more then any thing elſe. Neither yet doe you trouble your ſelfe to prepare them any other lodging, then the holes which they ſhall dig and worke out for themſelues.

The ſecond Chapter.

That there muſt a clapper be made for the better ſtoring and planting of your warren.

AND yet it is not inough to haue made and finiſhed the things that are to be done rounde about the warren, as to haue fenced

it, with whatsoeuer is necessarie for the preseruing and nourishing of conies; but you must also store and plant it: for no more then arable ground beareth fruit, except there be seede cast into it; nor the vine any grapes, except it be diligently planted and dressed: so neither thinke you that your warren, be it neuer so neatly and necessarily appointed and trimmed vp, can breede and feede conies, except you first put them there. Wherefore for your storing of your warren, it is requisite that you should cast vp a clapper, wherein you may put your males and females to kindle euerie moneth: for to buie so manie as should be needefull would be too costly and chargeable for the farmer or housholder: seeing also that it commeth to passe oftentimes, that after he hath solde many vnto the vittailers, or for that the foxes haue eaten vp some great number, the warren remaineth quite spoiled, and destitute of conies, in so much as that hee must be compelled to store it againe. It is better therefore, in respect of the greater commoditie and lesse charges, to make a clapper in some corner of your court or kitchin garden, which may be foure square, narrow, & fenced in with bords, or plaistered wals: indeed it were better to be prouided in the warren, for so the yoong ones might more commodiously out of the clapper passe into the warren at some one side of the clapper, which should be crosse wrought with lattise worke, and shoulde haue the holes thereof left so wide, as that the yoong ones might passe out and in vnto their dams.

Whether therefore the clapper bee prouided in the warren, or else where, you must build certaine small lodgings paued with boords, and these must haue holes in them like to those which the conies make themselus in the earth, and euery one seuerall from another, for the conies to betake themselues into: and it will be inough for to allowe in such places one male to eight or tenne females: and yet therewithall to keepe the bucke close shut vp in his lodging, for feare he should hurt & wrong the yoong ones, for the male conie (contrarie to the nature of all other manner of bucks) deuoureth the yoong ones. It is very true, that so soone as it is espied, that the Doe hath kindled, she must incontinently bee put into some other hole with the male, that so he may bucke her: for this is a most certaine thing, that so soone as the Doe is emptie and deliuered of her yoong ones, euen so soone she is full againe of yoong, in such sorte, as that she bringeth foorth yoong euery moneth in the yeere: yea and being great with yoong, she letteth not to take the bucke, and to continue a seconde burden, which she bringeth foorth afterward in due time. So as that this fruitefulnesse in conies hath become so admirable vnto many, as that some haue vpon too slender grounds thought and beleeued that the bucke shoulde conceiue and become great with yoong as well as the Doe: which is very false and altogether contrarie to all naturall

course

course in the action of generation, seeing that by natures course it is ordained that the female onely amongst beasts should conceiue and ingender, and not the male.

After that the yoong ones are growne somewhat great, and become able to leaue their dams: you shall carrie them into the warren for to store it therewith, and so let them grow wilde: otherwise if you keepe them shut vp, and fast inclosed in the clapper with their dams, they will become tame, and alwaies continue as it were slumbring and heauy, like vnto those which are continually shut vp in clappers made for the purpose: and so will haue a grosser and more vnpleasant flesh.

And yet notwithstanding, you must beware not to put abroad into your warren, the olde clapper conies, either males or females: for seeing they haue not had their free swing to runne abroad as those of the warren, and haue not learned to saue themselues from dangers and violences offred them by foxes and other such wilde beasts, they woulde bee by and by deuoured, so that thereupon it seemes better to conteine and continue them still in their accustomed clapper.

Conies in the clapper are to bee fedde with colewoorts, lettuses, groundsell, clarie, succorie, sowthistle, terragon, thistles, cich pease, oates, barlie and bran mingled together, and other such like things, as we haue spoken of heeretofore. In some countries they feede them with mans bloud, such as is to bee come by when sicke persons are let blood: but such maner of feeding of them is starke naught, and maketh their flesh vnsauorie in eating, and very preiudiciall vnto health.

The third Chapter.

How the conies in a warren ought to be handled and ordered.

ALthough the hauing of a clapper be very necessarie for the storing of a warren againe and againe, (as we haue saide before) notwithstanding for neede, one may leaue off all vse of the clapper, and so without any further charge or expences, content himselfe with putting a certaine number of conies both males and females into his warren, of them to haue sufficient store by increase of yoong ones. True it is that they are not so fruitefull, nor of such plentifull increase, and therefore the warren will not bee so soone stored by them, for they being accustomed to the warren, become more sauage and strange, but lesse giuen to ingender: & thereupon it commeth that the Does of the warren bring foorth yoong ones, onely thrise or fower times a yeere, and those that are kept in house clappers, once euerie moneth: but howsoeuer it be, if you finde it more for your profite to furnish your warren with store after this latter manner, it will be suffi-

cient for sixe dosen of Does to put in nine buckes, hauing more regard and consideration still vnto the Does then to the bucks, to spare them, if at any time you would take any.

Their feeding shall be no otherwise then hath alreadie been mentioned: and yet notwithstanding besides that manner of feeding, if you woulde haue great store of conies in your warren, and that they should be so sufficiently fed, as that they shoulde become fat, it will be good to sowe an acre of ground or two with barlie or oates, not for to make any further harueft of them, then that which they shall leaue vneaten. You must haue a speciall care that they feede vpon good nourishment: because their flesh (in like manner as the flesh of partridges) doth retaine the smell and sauour of that whereupon they feede: as for example, of iuniper, if their warren be full of iuniper, and so semblablie of other things.

If you see any conie hole stopt with haie, or straw, or such other like thing, do not vnstop it, but content your selfe onely to obserue it and to gesse that there are yoong ones within, which the dam nourisheth: for this is the manner of the Do, that from the time that she hath kindled, whether it bee in a house, clapper, or in a warren, she shutteth and stoppeth vp her hole with haie, strawe, or some other grasse, such as she can gather together, & to no other end but that the bucke may not finde her yoong ones, or go into her hole, where if he should once come, he would eate vp all her yoong ones: this thing being assuredly & vndoubtedly conceiued of the Doe, whether she be in her hole, or else go forth to feed, she stoppeth her earth; & if so be that at her returne she finde the mouth of her hole neuer so little vnstopt, she her selfe will by and by kill her yoong ones, hauing taken opinion, that the bucke is gone in thither. And this is the cause why good hunters will neuer put their ferret into any earth, whose mouth they see stopt, for feare of disquieting the dam, and causing of her to kill her yoong ones: true it is that she doth not keepe her hole euermore shut, for at such time as she knoweth her yoong ones to be growne great, and become strong inough to seeke their meate, & to run with others, she beginneth to make a little hole for thē to issue & goe out at.

Furthermore, you must not thinke that conies either males or females, doe at any time forget their earth, bee it neuer so farre off: for howsoeuer some say that conies haue no memorie, notwithstanding they are alwaies mindfull of their hole, be they straied or wandered neuer so far from the same. And this is the reason likewise why some say that a good conie will neuer die out of her earth. You must likewise coniecture that the conie is taught by nature to be afraid of the foxe, as the sheepe of the woolfe, which is another case besides his wilde and strange nature, why, when he goeth out of his hole, his minde runneth vpon nothing but running, thereby forgetting to thinke vpon

A good conie dieth alwaies in her earth.

other

other conies holes, and so of the Does, and of the eating of her yoong ones : for although he be mindefull of his owne earth, yet he taketh no care, neither casteth any whit about, howe he may finde out or fall vpon that which belongeth to another: likewise the Doe to take from him all occasion of any whit regarding hers ; is woont to stop the mouth thereof as hath beene saide.

The fourth Chapter.

Of the difference betwixt the warren and clapper conie.

THE warren conie hath a redder and thinner haire, a swifter and slenderer bodie, she is also more watchfull and wilde, hauing a pleasanter flesh, and lesse ingendring melancholie then the clapper conie: for the clapper conie lacking libertie, cannot runne nor exercise her body, & so becommeth more familiar and tame, more grosse, fuller of haire, more heauy and drowsie, and therefore lesse pleasant : againe, if it happen by chance that she come into the warren amongst wilde ones, she is by & by deuoured of foxes or other beasts, enemie vnto her, hauing neuer beene acquainted with the assaults & enimities of the saide beasts before. As concerning other matters both of thē are better to be eaten yoong & small, then when they are great. Their braine is good to asswage the paine that yoong children doe indure in the breeding of their teeth : notwithstanding such as would preserue their memorie must beware and eate as little thereof as they can possibly, because it furthereth forgetfulnesse. The fat of conies is much more commended then any other part, because it is better then any other helpes to make liniments of for the reines which are greeued with the grauell or the stone.

The vertues and speciall properties of conies.

Of Wood.

The fifth Chapter.

What is to be considered before a man goe about to plant a wood.

TO order and cause a new wood to be planted, you must knowe the ground wherein you would plant any thing, as whether it be fat or leane, whether it be of a reasonable depth of earth or no : and likewise if it be subiect to waters : because that some trees by nature loue the water, as the aller and others of the same nature : and according to the nature and propertie of the ground you must applie your selfe to fit it with such, as it may nourish most, both for your profit and pleasure.

The aller.

You

You must see and set downe first and before all other things that the ground be of such goodnes as is requisite : and you must likewise vnderstand that two of the noblest trees and esteemed woorth most siluer, are the oake and the chesnut tree, and that for two principall reasons : the one because they beare such fruites as whereof mixed with a little barlie or oates, one may make bread in the time of famine : the other because it is not in the nature of any tree to affoord so good timber as the said two, the oke and chesnut tree do, being either of them considered in his proper qualitie.

The oake.
The chesnut-tree.

The elme.
Elmes are barren and beare no fruit.

The third excellent sort of trees is the elme : and notwithstanding it be the inferiour to the other, because it beareth no fruit, and for that the leafe thereof is nothing so pleasant in respect as the leaues of the oke and the chesnut tree : yet the tree is woorth the having, euen for that it may be headded after the manner of willowes, and cut euery fower yeeres to make props and fagots : but the chesnut tree is a great deale better, more neate and fine, and bearing more fruite then other trees which are of his nature : neither doth it stand in need of so good and fat a ground as doth the oke, and againe the caterpillers and such other vermine do not haunt and fall vpon it, as they doe vpon the oke and elme. And further when the locusts come, which is euerie three yeere, as I my selfe haue seene, they eate not the leaues of the chesnut tree, because they finde leaues vpon the okes : for the yeere of the locusts doth hinder some wood more then of a yeeres growth, whereas besides that priuilege the chesnut tree doth ordinarily grow more in one yeere then the oke doth in two.

Chesnut trees.

Locusts euerie three yeeres.

It is very true that the elme groweth easily and plentifully, after that it hath taken with the ground. And who so would for varietie sake mingle diuers sorts of trees of diuers natures, as maple, beech, aspe, and such other kindes of wood, may do it, but the moe okes and chesnut trees a man groweth, the better he doth.

The sixth Chapter.

Of the seating and disposing of a wood for growing of high and great timber trees.

HE that hath a faire plot of eight or tenne acres of ground, and would make it shew faire and beautifull the first yeere, and that by bringing the wood into some shape and commendable forme, with hope of further delight and pleasure from the same in time to come, must for the first yeere wall it about or else ditch it so well, and plant it with hedges of quickset, as that no cattell may possibly be able to enter thereinto. And if the said plot should come to be ditched, then I am freely contented to vtter my opinion at some other time, concerning the fashion that they are to be made after, as also

how

how when they are made they must be planted or set with quickset.

But presuppose that the said square plot is inclosed with a wall, and that the said square hath fower sides, that is to say, two of length and two of bredth, mine aduise is that all the sides of the said wall shoulde be couered and cloathed with greenenesse, and with fower sorts of trees, and sixe foote thicke and large, seeing that nature reioyceth in varietie, that so both the walles may be kept from being seene, and there may be a walke betwixt two greenes.

The said coverts shall be made according to the good liking of the Lord, as for example, one of the sides if it should so seeme good vnto him, euen the south side with hasell and white hawthorne, because these are the first leaues that doe first put foorth in the spring time, as those also wherein the nightingale doth make her neast: another of the sides with barberie trees, which are beautifull and serue for many vses, spreading themselues in comely sort, when they meete with a good ground. The third side being that whereupon the sunne beateth at his rising, with tame osiers, which may serue in husbandry, and therewithall also make a faire shewe: And the fourth side with yoong peare tree plants, with some white thorne plants amongst, as at the end of euerie fower foote square, which are more greene then any other sorts of trees, and they wil be of vse for to graft many faire grafts vpon, and good store of great medlars.

The alleys about the saide wood must be twelue foot broad, and vpon the edges of all the said alleyes, as well on those that are toward the wall, as on the other there must be planted elmes euerie one foure fadome from another, hauing their heads cut off, and their bodies remaining a seuen foote high or thereabout, to giue some grace and comelinesse vnto the said alleyes: because that if a man should walke in the faireſt place in the world, if there be no sweetnesse to be found in it, it prooueth tedious and irkesome. For this cause if it please the Lord of the farme to plant along the said alleyes certaine fruit trees, as also wallnut trees, and those such as may suite euery season of the yeere he may doe it. *Alleys.* *Fruit-trees.*

Further it may seeme that all the saide trees should be set from foure feete to foure feete, and that by the leuell of a line euery waie, as well to please the sight of the eie, as also for that sometimes men are desirous to make alleyes within the wood, and then if the draughts be straight, it is more easie for to make them.

The seuenth Chapter.

Of the manner of planting trees in woods of high and tall growth.

AND for to plant the saide trees well, you must presently make ditches in manner of furrowes, as you are woont to doe in the planting

planting of vines, wherein they must be planted, to the end the earth may feede it selfe in the aire, and that it may battle and grow fat, with the raine and snow which shall fall during winter vpon them vnto the end of December, or vnto the beginning of Ianuarie.

These trenches are not to be made aboue two foote deepe: but they must be well handled in the bottome, and that by laying the good earth vpon one side of the furrow, and that which is lesse woorth vpon the other, and not to cast it abroad, to the end that if the bottome should proue bad ground, or otherwise to be ouer deepe, then there might be cast into the said furrow or trench some of that good earth which shall be on the side, to the end that the rootes of the tree may not busie themselues in searching a bad bottome, in steede of stretching foorth themselues in largnesse, and you must so leaue the trenches and furrowes all winter long, for the receiuing of the raine water when it commeth: and they must be so wide, as that one may turne a yard euery way round within.

The time to plant trees. The said trees must be planted in December, if it be possible, and that the times be fauourable, as when it freezeth not: for great frosts are great enemies to the good proceeding of this worke.

You should rather cast to plant trees that are alreadie growne vp, then to deale with the sowing of acornes or chesnuts, because it requireth great care and industrie to make the said seede to grow: and as concerning the seede it selfe, that of the chesnut groweth sooner then that of the acorne. And when as you goe about to sow them, it must be done with leauing a foote distance betwixt one and another with the largest, and in the end of great frosts: because that during the saide frosts, the mowles doe eate the chesnuts in the ground.

As concerning the planting of trees alreadie growne, they must be taken vp with as many rootes as they can possibly, and after they be taken vp, if there be any of their rootes broken, to cut the same: & those which are not broke to cut their ends for to refresh them, the length of three or foure fingers, more or lesse, as the rootes may beare it. You must make choise of a yoong plant, that hath a liuely and cleane bark, not rough and ouergrowen with mosse, a good and handsome roote, a straight shanke, and long without scars or frets: & before you plant it, it will be good to cast into the furrow some good earth, taken from the side of the said trench, to the thicknes of a finger or two, and vpon that to set the tree which you are about to plant, then couering the rootes with earth, to swaie vpon them gently with your hands, that so there may not anie aire staie about them, and in filling vp the said furrowes, you must prouide that they haue some sloping of earth, both on the one side and on the other, in manner of a gutter, to the ende that if it raine, the raine and moisture may runne away the more easily.

And to the end that the planted trees may grow the better, you must

must lay their longest rootes all along the trench, on the one side, and on the other: and if by hap it fall out that there be long ones on euerie side, so as that they cannot easily be laid along in the furrow, you must inlarge the furrowe a little in the place, where such rootes require it to be enlarged, to the end that the said roots may not touch the firme and fast earth, but may bee buried and wrapt in soft earth that hath beene mooued and stirred.

You must likewise cut off by the toppe of the shanke all the trees you plant: that is to say, such as you plant to make high and tall timber trees, or which you minde to set along by the sides of the alleis till you haue not left aboue the length of fiue or sixe foote to stand out of the earth, to the end they may the soonest beare a great shewe of woode: but the trees which you are purposed to plant for lowe and small wood, must be cut, that there be not left aboue a foote and a halfe, for it will be sufficient if they haue the length of fower inches out of the grounde; neither is there any danger in mingling chesnut trees with oakes, except a man be purposed to plant one woode with oakes onely, and another with chesnut trees: and as concerning the thickneſſe of the said trees it needeth no deepe aduise, for they may be either of the thickneſſe of a chesnut, tennise ball, or some other such like, but rather the care is that they be well and newly taken vp, and planted the same day they bee taken vp, or at the farthest the day following.

The woode thus planted must be twise laboured and tilled, once in the end of Aprill, and the second time at the end of Iulie, after the fall of some great raine vpon thunder: and if the caterpiller shall fall vpon it within the yeere, it must be clensed and freed from them.

The eighth Chapter.

Of the time when woode is to be tilled and husbanded.

IT is heere to bee noted that the chiefe and principall furtherance and comfort that can be giuen to trees, either reclaimed or wilde, is the labour bestowed vpon them in due and conuenient time, for the more they are husbanded and tilled, so much the more doe they growe and prosper in greatnesse: wherefore dressing and labour is verie necessarie for all yoong plants of all sorts of trees; as well small as great, and especially the foure first yeeres, they must bee husbanded throughly and plied with two seuerall dressings euery yeere as vines are, that is to say towardes the midst of Aprill, when they begin to put foorth their buds, and towards the end of Iune, and this must be done in moist and rainie weather, and not when drying windes or heate doth raigne, because the ground then stirred would doe nothing but turne to dust, which woulde destroie the yoong springs, and cause them

That dressing of the earth is necessarie for yoong plants.

Such dreſſing of the earth in dry weather is not good.

them die: againe the ſaid earth dreſſed at ſuch time doth more eaſilie conueigh the drineſſe of the drie earth turned downe, vnto the rootes of the trees, which is very contrarie vnto them; ſeeing that moiſture is the thing that is required for the nouriſhment of plants: and againe if the ground be moiſt, it ioyneth it ſelfe cloſe vnto the rootes, and lendeth vnto them of his moiſture. The other reaſon is, for that the earth being newly opened, by his lying open, giueth paſſage for the water, raine, or dew, to enter more eaſily vnto the ſaid rootes.

To pull vp weedes by the roote.

The principall labour to be made about all trees, is to roote out all weedes, ſeeing they are giuen to growe euery where in all groundes, and which, if they bee ſuffered to growe vp, ſucke, purloine, and carrie away the ſappe and ſubſtance of the earth in ſuch ſort, as that there is not lefte ſufficient vertue and power to nouriſh the rootes of the late planted trees well and in good order, and this is perceiued by the labour made in dreſſing of vine and gardens, the which the more they are husbanded and tilled, ſo much the more fruite, and yoong ſprings they put foorth, and become ſo much the more beautifull and faire. So it will be the chiefe worke after you haue planted trees, to cauſe them to be ſo dreſſed in ſeaſons that are moiſt, & that twiſe at the leaſt: and that will cauſe them to grow greater of wood, greater of boughes, and to yeeld double profite.

The third dreſſing of trees.

The growth of plants commeth by heate and moiſture.

And if extraordinarily the ſommer prooue rainie, ſo as that your plants become ouergrowne with much weedes, it ſhall bee left to the diſcretion of the husbandmã, if he ſee that his plants be not cleane, to beſtowe a third dreſſing vpon them, to the ende that the weedes may not ſmoother the bud, and deuoure the ſubſtance of the earth: for all plants come of heate and moiſture: and if they be ſuffered to be intangled with weeds they will be ſmoothered and in danger to be loſt.

The ninth Chapter.

That wood diligently dreſſed and husbanded, doth profite more then that which is not ſo dreſſed and husbanded.

I Know that there are many trees which are daily ſeene to growe without ſuch great paines taking and induſtrie, freely receiuing their naturall nouriſhment without aide or aſſiſtance, and that by reaſon of the fruitfulneſſe either of the grounde, or of the countrie: and yet if ſome one doe ſo eſcape, a hundred die for it: and this I ſaie for their ſakes, who hauing once planted, woulde bee loth to looſe their paines, and doe conceiue that all or the greateſt part, doe thriue and proſper: which conceite is notwithſtanding like to deceiue them, if they proceede not to dreſſe and husband them in conuenient ſort, after they haue beene well planted, as is aboue declared.

Wherefore

Wherefore I haue applied my ſelfe to trie the iſſue of tilling of them according to arte and knowledge, as alſo of leauing them vntilled: and I finde that although the tree which groweth in the deſert do grow vp ſometimes vnto a perfect growth, notwithſtanding it groweth not in ſo ſhort time, and the greateſt part of it dieth: and that that which is well tilled and planted, doth growe twiſe ſo much, and that not one of ten of them is loſt, but that all proſper, of what ſort of wilde trees ſoeuer they be. *The experience of dreſſing trees and of letting of them goe vndreſſed.*

But ſome may replie, that labour is chargeable and coſteth much, but in as much as it laſteth not alwaies, being to continue not paſt foure or fiue yeeres at the moſt, much like vnto the yoong plant of a vine, it will be founde that the coſt will not be great, ſeeing eſpecially that after ſuch coſt, it is freed from any more for euer. For after that woode is once growne vp to ſuch height as that weedes cannot ouergrowe nor ouercrowe it, (which will bee in foure or fiue yeeres if it bee husbanded) then it ſmoothereth the weedes that growe vnder it, and keepeth away from them both the ſunne and the aire with his ſhadow, in ſuch ſort as that they die, and are not able to ouerſhadow or doe anie hurt vnto the wood.

The tenth Chapter.

Of remouing, lopping, pruning, and making cleane of woode.

THat your plant may growe the better, it is likewiſe requiſite to remoue trees from a high, drie and bad ſoile, into an other ground that is more moiſt and fat, if it maie be: by this meanes in finding a better ſoile, the tree will take more eaſilie: and there is no doubt, but the better the ground is and the better that the plant is ordered, the ſooner it will grow, become bigger, beare greater boughs and leaues rather then leſſe, as may be ſeene in old forreſts which are ſituate in fertile and fat countries; or in thoſe which grow in ſandie and bad grounds, as in *Solonge* where woods continue verie ſmall and vntimelie. *Wood of Solongne.*

Woods planted and ordered (as is aboue ſaid) the firſt, ſecond, and third yeere, muſt not be touched with any edge toole: and yet notwithſtanding towardes the third and fourth yeeres, and thoſe that follow, if you perceiue your wood ſo thicke ſet and ſpred, as that it riſeth not neither groweth high as it ought, you may cull out and cut away the ſmall ſprigs and little boughes as you ſhall find them, ſeeing they are good for nothing, and leaue behind you ſome three or foure of the principall branches ſo ſtripped of their ſmall twigs as your owne diſcretion ſhall beſt direct you. This pruning of them would be towards the moneth of March after that the colde is paſſed and gone,

that

that so the frost may not hurt the boughes that are cut and newly lopped, and you may continue thus to prune them vnto the middest of Aprill, at what time they begin to bud and put foorth, but then it must be done gently, holding the shanke of the tree fast and firme without moouing or shaking of the roots. And this pruning may be done euerie yeere, if you will, and by this meanes you may cause a newe spring of small woods to growe, and to put foorth eight or ten branches, fit for to be plantes for high and tall trees, by cutting awaie the side ones, and leauing three or foure of the faireſt branches growing from the foote of the saide small woode, so cut downe, according as you shall thinke good, so that you make choise of such as growe vp high and straight: and if they be not altogether strong inough to hold vp themselues, you may helpe them with some prettie small props or stickes, the better to holde them vp.

The eleuenth Chapter.

Of the manner of sowing acornes for the growing of oakes.

Whereof wild trees do grow.

ALl sorts of wilde trees growe of remooued plants, hauing good rootes, or of branches, or of the seedes and fruites which they beare, and whereby they renue themselues. Of the remooued plant there hath alreadie inough beene saide, as that it is more profitable, and of a more speedie and certaine growth: and therefore the sooner able to bestowe pastime vpon his master.

The second way to growe trees, is to growe them of branches writhen and buried in the earth, gathered in such sort as that they may put foorth rootes, and take againe, as *Columella* hath very well set downe at large: notwithstanding this way is long in taking roote, and putting foorth; and not to be practised but where there are no plants to be come by. Wherefore I will not meddle with it in this place, because it is not done without difficultie and vncertaintie, and for that the pleasure thereof is long before it be reaped: as also for that in this our countrie of France there are many vnderwoodes and strong hedges, where are to be gathered very easily, and that in great quantitie, plants of all sorts of wilde trees.

The thirde way is to sowe them of seede, as of acornes, beech maste, and of the seede that is in the leaues of elmes, for they bring foorth such trees as those whereupon they themselues did growe: and such seedes may bee sowen in little furrowes made with a hacke or grubbing axe, and those not aboue foure or fiue fingers deepe, and therein to couer them againe very lightly with broken mould: or else they may be sowne with the plough, as beanes and all other kindes of graine are: or with a debbell, by which name they call a little sticke of

halfe

halfe a foote long, and a finger or inch thicke. And of the three waies, the beſt is to plant or ſowe the acorne or other ſeede with the dibble, euery one halfe a foote from an other, or a foote euery one from an other, by a ſtraight line, or after the manner vſed in grounds broken vp with the hacke, making a ſmall open place in the earth, and therein putting the acorne in the like diſtance of halfe a foote all along the furrowe: notwithſtanding it is not needefull to plant them ſo neere euery manner of way: for the earth woulde not bee able to beare ſo much fruite as woulde growe, and ſo it muſt either be tranſplanted, or elſe it would prooue out of courſe like a misborne thing. Wherfore you may leaue betwixt euery two furrowes and plants, fowre, fiue, or ſixe foote diſtance ſidewaies: and againe, if all proſper not, the woorſt and moſt ill fauouredly growne may be pulled vp.

And euen as ſmall and great woode is to be dreſſed and husbanded, ſo alſo muſt their ſeede be ordered, but not after the like fort: for the mattocke woulde pul vp the ſeede, and therefore they muſt bee vnderdigd very deftly, & the weeds weeded out all along the furrows where the ſeedes are ſet, to the ende that the weedes do not ſmoother them, and that they doe not blinde them, taking away their aire, ſun, and ſubſtance of the earth, whereof euery yoong ſeede and plant ſtandeth greatly in neede, as to bee holpen thereby to gather roote and life, which is as yet in them verie yong and tender. By which meanes you ſee that paines and labour taken about acornes and other ſeedes of trees, cauſeth them to growe and proſper ſo, as that they get the better of other plants, which in continuance might ouergrow them: but if they remaine as forſaken thinges without husbanding, they will bee choked vp of weedes, and the greateſt part of them die: and thoſe which ſhall eſcape, will be but of lowe growth, and appeere like an vntimely birth, lacking helpe and dreſſing, except through long continuance of time they preuaile, and then they which planted or ſowed them, ſhall not reape any pleaſure by them, but their heires onely.

And in all ſuch ſortes of planting and ſowing of wilde ſeedes, it is neceſſarie to fence a place ſowed or planted, ſo well and ſufficiently with ditches, hedges, or walles, as that no beaſt, horſe, or other may enter or get in: as alſo that thereby the woode may be kept from being handled or cut downe by paſſengers: for if the ſprig bee brouſed or broken, the tree remaineth all parched and readie for to drie.

According to this maner of planting of acornes, or cheſnuts they may very well and conueniently bee ſet and planted amongſt the plants of trees, and rootes that are planted farre inough off one from an other, for ſo they may haue roome betwixt two plantes, being diſtant the quantitie of nine or tenne foote, or thereabout, ſeeing it is meete and conuenient to nouriſh trees, and to deſtroie weedes.

By this meanes the acornes and chesnuts, or any other thing planted with the dibble, or sowen in furrowes, is dressed amongst the rest, and made to inioy sufficient scope betwixt two plants, there to take their full growth, vntill they become like high, or very neere with the trees planted or cut, neither doe they coste any thing extraordinarily for their dressing, because the whole ground is to bee dressed, because of the other plants that are in it. And in as much as it is oftentimes found in countries that there are neither vnderwoodes, woodes, bushes, nor hedges whereout one may get a plant growing from rootes, I haue thought good to intreate a little of the meanes of making it growe of seede. Like as is woont to bee done with fruite trees, and those which are taken from their nurceries, to be transplanted into gardens: so may you do with wilde trees, which after that they are growne to a sufficient thicknes, & come to beare seede, may be otherwhere either grafted or planted, as you shall wish or desire. For which cause heere shall bee put downe a treatise and chapter thereof, seeing the former intreateth of the intermingling of seede with plants, for to helpe out the storing of woodes which are alwaies to continue.

The twelfth Chapter.

Of the waie to make wilde trees growe of seede, to bee remoued afterward into some other place.

IT is certaine (as hath beene said before) that euery tree groweth either of a plant, or of some great fruit, or of a writhen branch: & for that there are many places where one cannot come by plants easily, it is to be attempted to make the saide plant to growe of seede, as is practised in the nurceries of tame and garden trees, by dressing and dunging some halfe acre of good ground, and then to sow it with such seede as that the trees beare, whereof you would haue plants.

That is to say, with acornes, if you woulde store you selfe with oakes: or with chesnuts if you desire chesnuts trees: or with the graine and seede which groweth in elme leaues, if you woulde haue elme plants. The saide graines and seedes must be sowen in a fat, fertile, well dunged, and somewhat moist grounde, and that reasonably thicke, therein couering the saide seedes two fingers thicke, and causing them to be well watered afterwardes, and couered with bright strawe, to the end that this fruit of yong trees sprouting out of the seede, be not eaten and broken by birdes: but when they begin to growe, the strawe must be taken away, and the weedes growing amongst them weeded out with the hande.

For which cause the quarters wherin the said seeds are to be sowen, must be made long and narrow, that so the weedes may easily be puld

vp

vp out of euerie place, without treading vpon the quarters, and that the ſaid weedes may be gathered gently, to auoide the doing of hurt vnto the rootes of the yoong trees: and oftentimes they muſt be watred at night after ſunne ſet, and in the morning before ſunne riſe.

And after they bee growne three foote high, you muſt remoone them into ſome other grounde before they take any ſtronger roote, and ſet them good two foote diſtant one from an other till they haue got a competent thickneſſe, ſuch as is before deſcribed, and dreſſe and cleanſe them from all weedes, and water them in the time of drought. Thus you ſhall reare plants of all ſorts, and of all manner of wilde trees, to remoone afterwarde into ſuch places as you will, and ſuch trees will growe very well being tranſplanted, as are of like age and ſort: for ſo the one of them cannot hurt or iniurie another.

This is to be practiſed in places where no plants of trees can bee founde in ſufficient ſtore: for otherwiſe in countries furniſhed with vnderwoodes, and woods, there are inough to be founde without taking this plant, and tedious protract of time: wherefore this article will be of vſe, where there is neither vnderwoode, woode, nor plant to become by in hedges or buſhes, and not in this countrie, where there are many to be gotten, and thoſe verie good.

The thirteenth Chapter.

Of the pleaſure that commeth of the planting of wilde woodes, as alſo of the profit comming of the ſame.

AMongſt the things required for the making of a place of perfect beauty, *Cato* in his booke of husbandrie ſaith, that it is needefull to haue nine principall things. The firſt is a vine, yeelding great quantitie of wine: the ſecond a garden, full of little riuers: the third a willow grone and oziar plot: the fourth a great riuer: the fifth a meadow: the ſixth a great champion ground: the ſeuenth coppies of vnderwood: the eight plentie of buſhes and a warren: and the ninth a forreſt of great trees or okes to beare acornes. Now amongſt all theſe ſeuerall points of perfect beautie we may ſee that the principall is water and wood: becauſe that hauing water one may eaſily make meadowes, garden plots, oziar yardes, and willow plots all along the waters and riuers: and hauing woods, one may make vnderwoods, warrens, buſhes, and high great trees alſo, if it be lopt and pruned vnderneath, to make it ſhoote vp and grow on high. And he muſt not leaue aboue three or foure branches at the moſt, and then they will become tall and high by and by, becauſe that the roote is disburdened of all the reſt of his boughes by hauing them cut downe: in like ſort the ground ſendeth all ſuch nouriſhment vnto theſe three or foure bran-

Nine things requiſite for the making of a beautifull place.

ches, as it had imploied in the nourishment of many branches of small wood, and offoordeth growth vnto the straighteſt and faireſt branches, which are left behinde to come to perfection : thus in a small time they become tall and great trees and beare acornes. So in like manner there is not that wood of high and great growth cut downe in good and seasonable time, which putteth not foorth small wood and bushes, if cattell and beasts be carefully kept out.

Woods haue in them three commodities.

Whereupon I will conclude that in planting of woods, there are three things principally requisite to the making of a beautifull place, that is to say, little wood, great wood, bushes and a warren. For it is the like reason to plant the one and the other : for of the one the other is made, as is aforesaid : wherefore in respect of the pleasure, profit, and beautie of the place, it is meete and conuenient to plant woods.

The pleasures and pastimes that the wilde woods afford.

But the chiefe pleasure and pastime which commeth by wilde woods, is, that being ioyned to your house and champion habitation, (which is the place, where it must be seated or planted) it is pleasant to the sight: for by his diuersity of greeneneſſe, it maruellously delighteth, and with great contentment recreateth the sight.

The second pleasure or pastime is, that the woods (beeing neere vnto your lodging) are alwaies full of all sorts of pretie birds, which sing sommer and winter all the day long, and the most part of the night, as nightingales and such other like, whereby their songs become ioifull and delightsome to the eare, and so there is a pleasure and great contentment to the eare euen to them in the house if it be neere vnto.

Another pleasure is, that in the said woods there are alwaies great store of wood coists, popingiaies, stares, cranes & other sorts of birds, which make you pastime to see them flie : and there may also pleasure be reaped in taking of them with little engines, as, with a call, nets, the tonnell, or other such like.

The fourth is, that in the woods are to be had conies, hares, squirrels, and other sorts of small beasts pleasant to behold, and of great seruice for prouision of vittaile.

The fifth is, that in hot seasons you may purchase a coole aire within the said woods, as those which will couer and defend you from the iniurie and vexation of the sunne, and contrariwise cooling you whether the heate will or no : and therein you haue also to behold a comfortable greeneneſſe, both vpon the boughes and ground, which keepeth his grasse greene through the cooleneſſe and shadow of the trees.

The sixth is, that in winter being in the said woods, you are out of the iniurie and force of the winds and great cold, because they breake them off : and further in these woods you are solitarie, and may vse your leasure, in reading, writing or meditating vpon your affaires, without being disquieted or distracted, or drawne to cast your sight abroad

abroad ouer any far distant place or countrie, in as much as the sight cannot pearse through the boughes or bushes.

Besides the said pleasures, there commeth much profit thereof, as well for the feeding of cattell, and that in the shadow, and with store of grasse at commandement at all times: as also in respect of the oke mast, beech mast, chesnuts and other fruites which the trees beare, which serue for the fatting of hogs, and are very necessarie for other beasts: and for that also you may vpon certaine yeeres make fall of your woods, to make fagots, fire wood, stakes to hedge in garden plots, and other inclosures, as also rods for vines to run vpon: and if there bee cut downe any chesnut trees, or hasels, you may (besides the things alreadie named) make your profit of hopes and boordes for wine vessels, in such sort as that these your woods shall not onely doe you pleasure but profit also, if so be you be so disposed to make your vse of it. *The profit of woods.*

By this meanes you may coniecture that the ground which is imploied in bearing of wood, is not any thing inferiour in profit vnto others which are imploied in bearing of corne and vines. *The profit of ground imploied about the bearing of wood*

It is very true that the commaundment or vse and profit of it, are longer time in purchasing, and more hardly come by, then that of corne and vines, but it recompenseth it with the double in the end: for the first charges once defraied, nature bringeth foorth both the greater and the smaller wood without the helpe of man, and without any labour, which happeneth not in corne grounds and vineyardes, seeing they beare not except they be continually husbanded and tilled. Wherefore the ground imploied in beech mast, and wood yeeldeth as much profit as any other, and will stand the house in as great stead, seeing it cannot be any way held or inhabited without wood.

I haue heere beene the more willing to declare and lay downe in breefe the pleasure and profit that commeth of woods, to the ende that they which take paines in those courses, may not thinke that they haue lost their time and cost bestowed thereupon, and that they may not be ashamed at the first blow of their trauell and long attendance, seeing that afterward both the pleasure and the profit doth abide and continue without any further cost, and that to them & their posterity.

Wherefore my counsell and aduise vnto the good husband and master of the family is, that hee applie himselfe to such planting of woods betimes, that so he may the sooner enioy the pleasures thereof, and that in so doing hee cast them so, as that they may growe as neere vnto his lodging and house where he meaneth to dwell, as possibly may bee, for his further both profit and pleasure: for if no good else should come thereof, yet they would serue to breake the raging and blustering windes annoying the house, if they bee well placed, and so conueniently as a man may be able to dispose them.

The fourteenth Chapter.

A treatise of the nature, properties, and differences of wilde trees, and what ground they delight most in.

SEeing it hath beene deliuered and laid downe heere aboue what time and manner is to be obserued in the planting of all wilde trees, and in giuing them such tillage, as may easily and in short time procure their growth: it hath seemed good vnto me, to write some little thing of the nature and sorts of trees which are planted and found ordinarily in the woods and forrests of France: and to declare briefly what manner of ground they delight in, and in what soile they prooue greatest and most profitable, to the end that the planters of them be not frustrated of their paines and purpose, and that that which requireth a drie and hot soile, be not planted in a moist and low soile: as also that the trees which delight in a moist and low countrie, be not planted in mountaines and drie countries, for this falleth out oftentimes to be the cause that such as bestow their cost in planting doe misse of their intent, and that the plant being in a ground cleane contrarie vnto it, doth not come to any profit. For which cause I will heere in a word expresse my minde concerning that point, not with any purpose to describe or comprise all the natures, vertues, and properties of trees, neither yet to speake of all kindes of trees: but onely to describe and declare the places and grounds wherein they prosper and grow most; as also to make knowne the diuersitie that is amongst trees of one and the same sort, and of one and the same name, as which are most fit to be planted, and best for to make shadowes to walke or sit in.

I know that there are diuers sorts of trees that growe both in the Easterne, Northerne, and Southerne parts of the worlde, whereof wee are almost altogether ignorant, and which in respect of the diuersitie of the regions doe not growe at al in this climate, and of these I minde not to speake at all, because my purpose is onely in briefe to lay downe that which is necessarie to be knowne about the planting of common trees, such as are ordinarily to be found in our owne forrests, & not of strange and forreine ones, the tronble about which would bee more then the pleasure. And as for such as are desirous to attaine the perfect knowledge of all manner of trees growing in any part of the worlde, and their vertues, properties, natures, and seedes, may see the same at large in *Theophrastus*, in his fourth booke of the historie of plants, and in the thirde booke where hee particularly intreateth of the kindes of wilde and sauage trees. For hee particularly runneth through the nature, force, vertue, seede, and manner of planting of

euerie

euerie wilde tree, as well those of the east, north, and south, as those of the west: but it shall bee sufficient for vs at this time to declare the nature of fiue or sixe sorts of trees which commonly growe in the countries heereby, and of their kinds, and what ground euery one delighteth in. Now therefore to begin.

There are two sortes of trees in generall: the one is called water trees, or trees delighting to grow in or neere vnto the brinkes of waters, in medowes, and in lowe and watrie places: the other land trees, or trees delighting to growe vpon the firme and solide lande, and where the waters by inundations or ouerflowings vse not to come. But first we will speake of the trees liuing in or about water. *Trees louing to liue neere the water.*

The fifteenth Chapter.

Of the aller, poplar, birch, willow, and other trees haunting the water.

THere are fowre or fiue sorts of trees, which of their owne nature grow neere vnto waters: & which except they haue great store of moisture, do hardly prosper or grow at all: of which amongst the rest, the aller is one that most coueteth the water: for the aller is of that nature as that it woulde bee halfe couered in water, and at the least the most part of this rootes must of necessitie bee within and stande lower then the water, for otherwise they woulde not take, in so much, as that trees of such nature, ought to bee planted in moist meadowes, and neere vnto the brookes running along by the said medowes, or in marshes, for in such groundes they take and growe exceeding well. This tree is apt to take in moist places, because it is a white woode, conteining much pith, and putting foorth great store of boughes in a short time, by reason of the moistnes of the waters wherewith it is nourished and fed.

The saide aller trees may bee planted two manner of waies, as namely either of branches gathered from great allers, or of liue roots digged vp in moist places, togither with the earth, and set againe in the like grounde, and that in such sort, as that the halfe of the saide rootes bee lower then the water, and the vppert part couered with earth the depth of one finger, and in the meane time before they bee planted, they must haue all their branches cut off too, within a fingers length of the roote, and it will put foorth againe many yoong shoots, after the manner of hasell trees. You may reade more of the aller tree in the fourth booke.

There is another sort of water woode, which hereabout is commonly called white woode, of this kinde are the poplar, birch, and other sorts of woode which growe close by the water side, and vpon the bankes of ditches, springes, and little brookes, and it is a common *White wood.*

practise in Italie to lay their conueiances and pipes to carrie their water from riuers throughout their grounds of those woodes. And these kindes of trees may be easily planted of yoong roots along by the water and riuer side, both most conueniently and profitablie: especially the white poplar, otherwise called the aspe tree, whose leaues are apt to shake with euerie small winde. Where rootes cannot be got, there may in their steede be taken faire and strong plantes, such as are vsed in the planting of willowes: the birch doth somewhat resemble the white poplar in his barke, and the beech tree in his leafe, but it craueth a colder and moister soile then the poplar. And this is the cause why it groweth so plentifully in colde countries.

The other sort of water woode is the willow, which as we finde by proofe, groweth nothing well except it be in a moist and watrie countrie, and neere ioyning to waters. The manner of planting of willowes is commonly by setting of willowe plantes, and those such as are of a good thicknes and strength, as namely as great as one may gripe: for looke how much the stronger and thicker they bee, so much the moe shootes will they put foorth, and so much the stronger. This tree differeth much from the aller: for the aller will haue his roots all within water, but the willow woulde stand higher, and spread his roots along into the grounde that is wet and moist, and neere vnto water, without hauing his rootes altogither in the water, according whereunto it is continually seene that willowes planted vpon causeies and bankes hauing some ditch of water ioyning thereunto, and that in such sort as that their rootes may reach but to the brinkes and edges of the water, proue fairer, taller, and more plentifull, then those which grow in waterish medowes, because that for the most part their rootes stand moist in water. You may reade of the Holme tree in the fourth booke.

I saie not that willowes, allers, poplars, and such white wood will not growe in high places: notwithstanding that it is their nature to growe neere to water, and do prosper best in such places, and if they be planted in high places, and farre from water, they are hardly nourished, and put foorth verie little in growth, in so much as that a hundred such trees as are planted in waterie countries, will yeelde more woode then a thousand planted in a drie countrie, notwithstanding all the indeuour and husbandrie that can be vsed, yea, and they will perish and die a great deale sooner.

This I saie because it is easie to make them grow, and to husband them in a high or hilly place, by watering and dressing of them in conuenient sort, which labours, as they are not performed without great cost, so if they happen to bee neglected, it prooueth to be the losse and spoile of the trees, whereas if they be planted in some place that is fit for them, and neere vnto water, according as their nature requireth,

requireth, they will prosper without the toile or industrie of man vsed therein. Notwithstanding for as much as the first yeeres after they be planted, they haue much to doe to shoote and nourish their roots and such branches as are alreadie put foorth, it will be best to free them of all such twigs as they shall put foorth the first yeere, to the ende they may more easilie feede their rootes, as also that thereby the force of windes, which woulde take such holde of offall, may not shake and loosen those which are alreadie fast, for vpon such causes trees do manie times die, be they neuer so well planted.

I know that it is not alwayes required that such paines shoulde be taken (especially about those which are orderly and conueniently planted) in planting or pruning of them. Notwithstanding I say thus much for them, which go about the making of close alleies for walkes and shades, that they may cause them to grow much in a short time, for this they shall effect by planting of them in furrowes, and not one of them perish. And as for their paine and labour, they shall haue the pleasure thereof in shorter time, and larger manner.

Trees must be well and surelie planted at the first.

Heerewithall it must be noted, that whensoeuer you set or plant any such trees, you must so do it, as that it needenot a second dooing: for if any of them shoulde die, it woulde be the harder to set others in their places, so as that they would thriue, because the shadowe of the other which liue, would cause the same to die, seeing it is vsually seene that the elder and stronger ones doe oppresse the weaker, keeping them vnder, and causing them to miscarrie. Wherefore the greater care is to be vsed in the first planting of them, and the more paine to be taken with them, seeing the sequele is a thing that is so hard to bee redressed.

The time to plant willowes, alders, &c.

The time to plant willowes, allers, poplars, and other such woods, is alwayes founde best in the beginning of Februarie, or at the latter ende of Ianuarie, when the great colde is paste, being otherwise apt to hurt such plants as are new set, as hath alreadie beene said.

As concerning the properties of these trees thus delighting in watrie grounds: the leaues & flowers of the white poplar, although they be a little hot, do notwithstanding make a very cooling ointment called *Populeum*, good to take away the heate of inflammations, as also the milke out of woomens brests that are newly delinered.

Birch tree yeeldeth twigs which serue to make rods for the punishing of theeues withall, as also to make baskets, little maunds, beesomes, and couerings for earthen bottles. Of the stocke is made charcole seruing for the melting of mettal. And of the rinde are made links to giue light in the nigt season, for to such end doe countrie people vse them. The iuice of the leaues mixt amongst the runnet of a calfe, doth keepe cheese from wormes and rottennes: if you pearce the stocke of the birch tree, there will come foorth a water, which being drunke

drunke a long time, is of power to breake the stone of the reines and bladder, being taken in a gargarisme, it drieth the vlcers of the mouth: and being vsed in lotions, it clenseth and taketh away the filthines and infections of the skin.

The sixteenth Chapter.

Of ashes, elmes, and maple trees.

Ash trees. THe ash doth naturally craue a lowe and wateriſh countrie, and therefore do growe more plentifully in such places, then in high grounds: and therefore for the most part they must be planted in such lowe and watrie grounds, though not altogither so lowe & watrie as the willowe, poplar, and aller doe craue: howbeit notwithstanding they may be planted in indifferent grounds, & elmes will growe well therein. Their proper nature is to delight in moist valleies, for therein they prosper wel and growe vp to a great height, with streightnes, and beautifulnes of timber. Notwithstanding this is a common woode which may be planted in all sorts of groundes, howsoeuer that it like better in fat and moist groundes, then in those, which are but indifferent: but they much dislike the drie, rough, stiffe, and grauellie groundes, if they be not mingled with moisture.

Elmes of three sortes. There are three sortes of elmes, the one is of those which haue a small little leafe and a blacke stalke: the second hath a large leafe, and a reasonable white stalke: the third of them hath a very large leafe, and the stalk as it were al white: those which are to be chosen for planting are those two latter, for they are of greater growth, and are woont to prosper better: besides that, they are fairer, and put foorth moe boughes, making therby a greater shadow.

Male and female elmes. Of these three sortes there are both males and females: wee call those females, which beare most fruite, and the thicker seede: and the males wee call those which are lesser, and beare their fruite of seede, in the middest of the leaues, and that in such sort, as that they seeme to beare neither fruite nor seede. And for this cause there are many that write of husbandrie, affirming the saide tree to beare no fruit or seede, and that it groweth either of a plant or shoote. And of this opinion was *Tremelius*. Notwithstanding, it is certaine, euerie leafe beareth his fruite contained in the middest thereof, and thereof will elmes grow, being sowen in due time. And of this opinion is *Columella*, and experience it selfe doth shew it: he maketh two differing sorts of elmes, calling the one sort the faireſt & tallest elmes of France: & the other sort Italian elmes. And as concerning those faireſt elmes, if they be to bee found, they must be plãted, because they grow vp the sooner that way, and put forth much larger boughes. *Theophrastus* and some other writers doe make them selfe differing, according to the country wherein they

Columella.

Theophrastus.

they growe. I haue beene the more willing to deſcribe them according to their kinde of leafe and woode, that you may the more eaſilie knowe them. I woulde haue you to looke backe into the fourth booke.

Amongſt theſe ſorts of trees we may place the maple trees (called of the Latines *Aceres*,) becauſe in their nature they ſomewhat reſemble the elme: they craue the like grounde, namely a fat and moiſt grounde, they growe (as the elmes doe) in all arable groundes, they put foorth in a ſhort time great branches, and but little greeneneſſe. This tree hath a very white body, beareth ſmall leaues like the leaues of three leaued graſſe, and doth not breede or gather any great ſtore of vermine.

The aſh is contrarily inclined, for thereon breedeth oftentimes ſuch aboundance of vermine, as that thereby all their leaues are eaten and bored full of little holes. Of this ſort of trees as well elmes as aſhes and maples, the beſt are thoſe which grow ſooneſt, and ſpread out the largeſt boughes in a ſhort time. *The aſh.*

As concerning the properties of theſe three kindes of trees, wee haue ſpoken in the thirde booke, in the chapter of balmes, howe there is made a ſingular balme of the little fruite that is founde incloſed in the leaues of one of the ſorts of elmes: furthermore, the water which is founde incloſed in this little fruite, maketh the face neate and ſhining if it bee waſhed therewith: againe double linnen clothes being wet in this iuice or water, and applied to children which are burſten, becommeth a ſingular remedie for them. The ſame iuice put into a glaſſe bottle, and buried in the earth or dung, for the ſpace of fiue and twentie daies, being well ſtopt, and hauing the bottome ſet vpon a heape of ſalt, prooueth ſingular good to cure greene wounds, if they be dreſſed with tents ſteeped in the ſaid iuice. *The vertues of the elme.*

The maple tree in this countrie amongſt other things is had in requeſt, becauſe of the boughes thereof there are made bowes, and that becauſe they are ſtuffe and hard to bende. *Shooting bows.*

The aſh tree hath a ſingular vertue againſt the venome of ſerpents, for it is ſuch an enimie, and ſo contrarie vnto them, as that they dare not drawe neere, or approch vnto the ſhadowe thereof: and againe as hath beene prooued of many, if you make as it were a circle of the leaues or boughes of the aſh tree, and put within the ſame a ſerpent by the one ſide thereof, and a burning fire one the other ſide, the adder will rather aduenture to paſſe through the fire, then ouer the aſh tree leaues: for this cauſe nature, as one carefull of the good of mankind, hath prouided that the aſh ſhoulde flouriſh before that adders and vipers doe vſe to come out of their holes in the ſpring time: as alſo that it ſhould not fall his leaues in autumne, till they haue taken vp their winter reſting place. Wherefore if it happen that any horſe,

cow,

cow, or other beasts of the farmers should be bitten by some serpent or other venemous beasts: there cannot be found a more soueraigne remedie, then to stampe the tendereſt leaues that are to be found vpon the ash, and straining out the iuice to giue it the beast to drinke: and afterward to lay vpon the greeued part the drosse of the stamped leaues: this is likewise a good remedie for men that are bitten of any adder or viper. The decoction of the rinde of the ash tree taken, is singular good to open the obstructions of the spleene, and to drawe out great store of water from such as haue the dropsie, as also to make fat folks leane.

The seauenteenth Chapter.

Of chesnut trees.

THE chesnut tree is a strong and mightie tree, much like vnto the oke. It is a fast wood & good to build withall, as also to vnderprop vines, & make other works, which are made of oke. It groweth of the seed of the chesnut, which is sowen after the manner of the acorne, & so it groweth and putteth foorth his shoots both sooner and more effectually, and taketh commonly in all grounds, yea euen in the sandie or grauelly grounds, but yet it shunneth the groundes that lie open to the pearching heate of the sunne, affecting altogether the little hils and mountaines that are colde and lie vpon the North. The seede or fruit thereof (called the chesnut) is sometimes spoiled and that after the same manner that the acorne is, as by too much drinesse, which maketh it that it cannot bud or blossome, or by to great store of water, putrifiyng both the chesnut and acorne, before it can spring out of the earth, or else by cattell, moules, field mice, and such sorts of vermine which eate or wound the chesnut and acorne within the ground. The nature of the yoong plants of chesnut trees, and okes are much alike, and the manner of dressing them also: and if you would haue them to put foorth store of boughes, you must cut them after they haue beene planted three or fower yeeres, and not before, and that in the beginning of the spring time, for so you shall make them put foorth twise as much. And yet it is not without danger to vse any edgetoole in cutting them, for thereby they oftentimes die. So then if there put foorth any branches or sprigs along the stem, in the first, second, or third yeere, you may at the beginning of such their putting foorth crop them off, and breake them away with your hande whiles they are yoong and tender, and not to take any knife vnto them, and then you shall doe best.

The

The eighteenth Chapter.

Of the oke and the differences thereof, hornbeame, beech, linden tree and others.

THE oke is a tree bearing moſt fruit, and affoording the moſt commoditie of any tree growing in France. And for this cauſe it hath beene accuſtomed to preſerue and keepe ſtore of theſe kindes of trees in olde woodes and forreſts, as being moſt neceſſary and profitable. Some doe make three ſorts of this kinde of tree, and of euery ſort a male and a female: for notwithſtanding that the common people call them all by the common name of oke, yet the Latins attribute to euery ſort his ſeuerall and proper name, calling one ſort thereof *Robur*, another *Quercus*, and the third *Ilex*.

The different names of the oake are Robur, Quercus, Ilex.

The firſt of theſe ſorts is a kinde of oke which is very thicke and ſtrong, hauing a body that is very thicke below, & full of knots, & very mightie, hauing great roots and ſpreading far and wide in the ground: and at the top of the body or bole which is but ſhort, it beareth many and great quantitie of boughes that are alſo thicke, ſpread abroad and long, taking great roome: and for that cauſe are planted the one from another a great diſtance, that ſo they may haue roome for their boughes to ſpread. The wood growing vpon this ſort of okes is fitter to make fire wood of, then timber to build withall, becauſe it hath but a ſhort bole, and riſeth not vp to any great height or ſquareneſſe, hauing his boughes therewithall very crooked and writhen. There are many forreſts to be ſeene, wherein this kinde of okes doth growe, as namely thoſe whoſe okes are thicke and ſhort, ſtanding far aſunder, and yet ſpreading on a great bredth aboue.

The other ſort of okes hath both a reaſonable thicke & long body, as namely of the height of foure or fiue good fadomes: as alſo foure or fiue reaſonable tall & ſtraight boughes growing thereupon, but not ſpread foorth into any great breadth, as neither the bodie is ſo well couered and ſhadowed therewith as the former. And this ſort of okes is good for beames of howſes, and great peeces of timber, to be put in buildings, as alſo for to ſaw and cleaue, becauſe it is not knottie and hard as the former. And of this ſort there are to be ſeene many forreſts planted in France, and they are more thicke and cloſer growne with timber, then the others which I am about to ſpeake of, becauſe the boughes of theſe doe riſe more ſtraight vp, and take not vp ſo much roome.

The third ſort of okes hath a ſmall bodie but very ſtraight, and growing to the height of ſeuen or eight fadoms without any boughes, and at the top of their ſaid bodies, bearing but ſmall ſtore of boughes and wood, in ſuch ſort, as that all the wood is in the bole, ſeeming to be onely a noſegay at the top. And this kinde of wood ſtandeth very

neere

neere the foote one of another, rising vp equally and alike vnto a great height & straightnesse, and the forrests furnished with this kinde, are very profitable to make all sorts of buildings, whether it be to make the ioyces thereof, or any of the other sorts of long and middle timber, as those required for wals or roofes. And of this kind of woode there are many forrests in this countrie.

All these three sorts of wood doe beare a great leafe, and that euery one like vnto another, saue that they are some of them large and great, some but indifferent, and the thirde sort small and little. Againe, they beare some of them acornes that are more long and thicke, othersome acornes that are more thicke and short: and againe other some of them acornes that are smaller and longer.

The male and female of oakes. Theophrastus.

Furthermore, there is not any of these three sorts which consisteth not of male and female. The female is commonly called that (as *Theophrastus* saith) which beareth the most and strongest fruite: whereupon it followeth, that if those are to be called the females which beare most store of fruite; wee must needes call those males, which beare least fruite. When they beare fruite, or when they beare none, the barren are called the males, and the fruitefull the females. *Theophrastus* putteth an other difference betwixt those which are fruiteleſſe, but I meane not to write any thing thereof at this present, purposing to bee briefe, and to referre such as are desirous to see the same to *Theophrastus* his thirde booke of the historie of plants, vnder the title of the oake, as also in like manner for all other sorts of trees, which I spare to speake of, that so I may not exceede my former purpose and intent.

The barren is called the male and the fruitfull the female.

That the life of an oake containeth a 100 yeeres of growth, a 100 yeeres of standing in a stay, and a 100 to perish and die in.

All these sorts of oakes are of great continuance and length of life, in so much as that some allot vnto them, to liue three hundred yeeres: that is to say, one hundred to growe, one hundred to stande at a staie, and one hundred to decline and fall away: which may easily be seene in the olde and ancient forrests.

The horse at his full growth at fiue, and a man at fiue and twentie.

And whereas the oke is long in comming to his growth and long in dying, it is no maruell, if the elme, the ash, the maple, and other woods set in the like and no better ground, doe put foorth their boughes and branches more speedily and mightily then the oake: for the nature of those trees is to grow vp soone to their perfection, & so to die and fade soone; and the nature of the oake is to grow by leasure, to flourish a long time, and to be long before it die: now nature will not be ouer chased, as may be seene in a horse, which commeth to his growth in fiue yeeres, and man not before he be fiue and twentie: and so the whole continuance of the one, is more durable then that of the other. This I speake in respect of such, as by and by looke to haue wood to become growne according as they can wish: giuing them to knowe, that to answere their hastie desire it will bee best for them to

plant

plant aſhes, elmes and maple onely, ſeeing they are giuen to ſpring mightily & in a ſhort time, putting forth more boughes in ſix yeeres then the oke in ten. Whereas they which deſire to haue a more pleaſant, profitable and durable wood, though it be longer in comming to perfection, muſt plant okes, cheſnut trees, horne beames, and beech trees, for they are reaſonably long in growing, and of like durablenes, and put forth but ſmall ſtore of ſhootes, like as the oke, in ſuch ſort as that they become trees of one and the ſame ſort and growth, and to be planted after one manner and at one time, as hath beene ſaid before. It is very true that the oke delighteth in a fat, good and drie ground, euen as the hornebeame and beech tree doe: notwithſtanding the hornebeame and beech will growe more eaſily in a ſtonie grounde or countrie, although that euery ſort of trees whatſoeuer, bee giuen to grow the better, by how much the ground is better, wherein they are planted. But ſome doe naturally delight in and craue a good ground, as for example the oke, if you would haue it to proſper well: for and if you plant it in an indifferent ground, it will proſper but indifferently: and if it be ſet in a hard and barren ſoile, it hardly proſpereth, and doth nothing but burne away with the heate of the ſunne, and yet hornebeames and beeches doe grow in grounds that are but indifferent: yea, they may be ſeene to proſper well in hard and ſtonie grounds.

The pits are in good ſeaſon opened, and all the ſaid trees more conueniently planted in the moneth of Februarie, when the ſtrength of winter is well broken, as alwayes hath beene ſaid.

The hornebeame tree (called of the Latines *Carpinus*) groweth in the ſame ground and after the ſame faſhion that the maple doth. The wood of this tree hath in times paſt beene vſed to helue husbandmens tooles, and to make yokes for oxen: but now it is made matter for the fire, being a wood that hath leaſt moiſture, but more drines, and which maketh the beſt coale. *Hornbeame.*

The beech (called of the Latines *Fagus*) as it reſembleth the hornbeame very neere; ſo it craueth the like ſoile and dreſſing for the making of it to thriue and grow well: it is true that therefore it is worthie to be had in requeſt, bicauſe it bringeth foorth his fruit which is called beech maſt, and that of no leſſe profit then the acorne, at the leaſt the ſquirrels, turtle doues, cranes and ſuch other birds doe fat themſelues thereupon. The men of ancient time did make their wine veſſels, fats, and drinking veſſel of the rinde of this tree. *Beech.*

The linden tree groweth very well in hillie and high mounted places, ſo that they be notwithſtanding moiſt and ſomewhat wateriſh: The wood thereof is fit to make coffers and boxes: and the rinde to make cradles or baskers to lay yoong children in. *The lynden tree.*

The corke tree craueth the like ſoile with the aſh and the oke, it is no where to be found in all the forreſts of France, but in great ſtore *The cork-tree.*

in

in the countrie of *Bearne* and *Foix*: this is a thing woorth the noting in this tree, namely, that it may haue his barke pilled off without dooing of any iniurie vnto the same, and this is ordinarily imploied about the making of hiues for bees, and for the soles of slippers and pantofles, vsually worne during the colde time of winter.

The yew tree. The yew tree (which the Latines call *Taxus*) is very common in our forrests: it groweth well vpon mountaines and rockes. The wood thereof is good to make coffers, footestooles, bowes, arrowes, dartes, and other such like stately ioyners workes of, because it hath diuers veines, and is not subiect to bee eaten of wormes. Some there are which report that it is deadly to eate or sleepe vnder the shadowe of it, and that if a man eate of the fruite thereof, it casteth him into an ague and bloudie fluxe.

And seeing I haue resolued to be briefe, and not to passe beyond my bounds, it shall bee sufficient to haue made this short rehearsall, commending such as are desirous to see further into this skill and knowledge, to such bookes of husbandrie as throughlie intreate of al the parts of the same, seeing they are to be had euerie where, and seeing that in them such things are to be attained to the full, as I for breuitie sake haue omitted and left vntoucht.

As concerning the vertues and properties of the foresaide trees, the oke hath many thinges, and those of great commendation. The leaues, his nuts (which are called gals) his misseltoe (as being called the misseltoe of the oke.) The tender leaues thereof which are but as yet budding and putting foorth may be distilled, and the water thereof is singular against the fluxes of the liuer, to breake the stone, and to staie the whites of women. The greater sort of gals or apples, haue this propertie in them, namely to presage and foretell three things, that is to say, war, dearth, pestilence: for if you open them which are whole, you shall finde therein either a little flie, or a little spider, or a little worme: if the flie flie away, it betokeneth that there will be warre: if the little worme doe creepe, it is a signe of dearth that yeere: and if the spider doe runne to and fro, it prognosticateth an infinite number of pestilent diseases. The oke apples dried and made into powder, doe speedily staie all manner of fluxe of the belly. The misseltoe of the oke taken inwardly, doth greatly asswage the torments of such as are taken with the falling sicknes.

The stone. *The whites of women.* *Presages.* *Falling sicknes.*

The beech tree is much vsed to make baskets and maundes of for to gather grapes in. And heereof likewise men in olde time were wont to make vessels to sacrifice in vnto their gods. The leaues of the beech tree chawd, do heale the chaps of the lips, & the frettings of the gums. The fruite of the beech tree, which is called beech mast, dried and made into ashes, being mixt with liniments, is of great force & power against the stone and grauell.

Chaps of the lips. *The grauell.* *The stone.*

Of

Of the parke for the keeping of wilde beasts.

The nineteenth Chapter.

Of the situation of the parkes, and of the manner of ordering the wilde beasts therein.

TO the ende we may not leaue any thing out of this description of a countrie farme, whereof the farmer or lorde of the soile may make any profit, or else take any pleasure, my aduise and counsaile is, that according as the places and groundes may conueniently affoorde, there be parkes made neere vnto the farme, therein to breede and keepe hares, wilde goates, or fallowe deere, wilde swine, and such other like wilde beasts, to the ende that the lorde and master of the place may now and then recreate himselfe therewith, and take his sport in seeing the saide wilde beasts hunted; as also that if hee bee disposed to make any great feast or banket, he may therein bee sure to finde as in his kitchin or larder house for to make readie meate of, besides the benefite which the good husband may make yeerely thereof by selling of them. *The profit of the parke.*

The parke woulde be seated (if it bee possible) within a woode of high and tall timber trees, in a place compassed about, and well fenced with wals made of rough stone and lyme, or else of brickes and earth-lome, or else with pales made of oke planks. You must foresee that there bee some little brooke or spring water running along by the place, or for want of spring water and naturall streames, you must prepare ditches and pools walled and daubed in such sort as that they may receiue and keepe the raine water. *The situation of the parke.*

It is meete also that there shoulde be great store of grasse ground in the place, and trees bearing fruite: amongst all other trees there is speciall account made of acornes, wilde apples, wilde peares, strawe-berrie trees, and other such like, for the feeding of these wilde beasts. Notwithstanding the good farmer must not content himselfe with the prouision which the ground bringeth forth of it selfe: but at such times as the earth is barren, and when there is nothing to feede vpon in the forrests: they must haue giuen vnto them of the harueste fruits: and be fedde with barly, pure wheate, beanes, the drosse of the wine presse, and whatsoeuer else is good cheape. *Prouision of foode for wilde beasts.*

And to the ende that these wilde cattell may the better knowe, that there is such prouision of meate for them, there must be amongst them some tame ones, and such as haue bene trained vp in the house, for they will follow any whither, and draw the other after them, & so bring them to the place of prouision for their feeding. And this order

must not onely be obserued in winter, but also when they bee great with yoong, and when they haue calued, that so they may feede them the better. And to that end there must regard be had to see when they haue fawned, that there may be corne giuen them.

The wild bore would not be let growe elder then the age of fower yeeres, for hee groweth vnto this time, but afterward paireth and becommeth leane by reason of olde age: wherefore it is meete that hee should be solde whiles he is in his beautie and prime.

A stag may be kept a long time, for he is yoong a great time, and liueth a great while.

But as concerning small beasts, as hares, they must not be put in a parke fenced onely with posts and pales: for seeing they are small, they will easilie passe through the gaping and open spaces, and hauing got through, runne away. Their parkes therefore must be walled about, & their feeding of fourage or maslin corne, succories, lettuses, cich-pease, barlie steeped in raine water: for leuerets are not greatly in loue with drie corne. As for conies we haue spoken of them in the treatise of the warren.

Of the heronrie.

The twentieth Chapter.

Of the situation of the heronrie, and of the ordering of the heronshewes.

WE haue intreated in the first booke of certaine strange and wilde birdes, as peacockes, turkeies, fesants and small hens, and haue saide that it is a curious and difficult thing to breede and bring them vp: and wee may say as much or more of the herne, which is called of the Latins *Ardea*, as a man would say *Ardua*: because he is giuen to flie on high: for there is nothing but charges in this birde, without any profite. True it is that princes and great states, which loue the game may take some pleasure and delight in the flight of the hauke for to take the herne, as also some good liking in swallowing the sweete morsels in eating of the herne, but especiallie of the stomacke and brest: in like manner there are some that saye, that a herne is a princely dish, and meate for a king; but all this pleasure is not come by without double costes. Let vs then put case and admit that the lorde and master of the farme bee a prince or great lorde, and that he beareth a very good will to all manner of game, and to fare daintilie; then he may so prouide as that hee may now and then haue some sport with the herne, either in taking or eating of the same: wherefore it shall not be amisse if wee speake a word or two of the heronry, to the end wee may not let slip and ouerpasse any thing in generall

rall of all that which may be neceſſarie for the beautifying and perfecting of our farme and country houſe.

To prouide therefore for a heronrie or place to breed herns in, being if you meane to haue it, not onely for pleaſure but alſo for profit vnto the lord thereof, you muſt firſt conſider that the herne is but a gueſt for a time, affecting ſolitarines, and very fantaſticall, as not giuen to ſtaie in any place, but ſuch as pleaſeth him very well: and for that cauſe it is not to be taken as an indifferent thing to place or beſtow their prouiſion for their neſting and abode in any place, but only where it is coniectured, that in paſſing along, they haue begun to reſt and ſettle themſelues, as in a place that is moſt pleaſant and delightſome to them. For the heronrie muſt in prouiding bee two manner of waies conſidered of: as firſt there muſt conſideration bee had of their foode and nouriſhment, that ſo when it ſhall pleaſe the lord of the farme to hauke the herne, or to make any great and coſtly banket, he may haue them ready at his commandement. And ſecondly to allure and draw hernes as they flie along: for the herne that is ſhut vp and made faſt in a heronrie, calleth vnto him ſuch as flie by, for they hearing the voice of the hernſhew ſo ſhut vp and made faſt, doe thereupon ſtay and make their neſts vpon the vppermoſt and higheſt part of the heronrie, whereupon it commeth, that hauing laid their egges, by and by their yoong ones are taken to be ſhut vp and made faſt in the heronrie.

What place is fitteſt for a Heronry.

Two things giuing occaſion to make choiſe of ſome certaine place for a heronry.

Let vs conclude then, that before there be any coſt made in building a place for the heronſhewes to build in, there muſt diligent care be had in diſcerning of the commodiouſneſſe & fitneſſe of the place, and that is gathered by hauing known the hern now and then to haue contented & pleaſed himſelfe therewith: for if a man ſhould go about to ſhut vp a herne in ſuch place as he taketh no delight in, he would neuer haue yong, but die out of hand. Furthermore it is requiſite that there ſhould paſſe ſome ſmal ſtreame of water through the middeſt of the heronrie, for the heronſhew is a water bird, and taketh delight and pleaſure in water, as liuing altogether vpon eeles, and other ſuch like liuing fiſhes. The building of the heronry muſt be made altogether for light, wrought with very cloſe latiſes and clouen planks, about the height of ſixe fadome from the ground, & well couered aboue, to the end that the heronſhewes flying by may make their neſts vpon the heronrie in fit and commodious ſort.

Their meat muſt be liue eeles, and other ſuch like fiſhes, ſometimes the inner parts of beaſts, as alſo the fleſh of wolues and dogs cut into ſmall gobbets: and they muſt haue giuen them to eat vntill they bee full, that ſo they may be fat againſt the time of hauking or banketting, and not for increaſe or ſtore, for there are but a few hernes that will lay egges being reſtrained of their liberty.

The food and nouriſhment the heronſhe

What place is best to flie at the heronshewe.

And yet this I will tell you by the way, that if the lord of the farme doe take any herne out of the heronrie to make him sport withall by flying him with the hauke, that then hee must beware not to doe it neere vnto the heronrie, for otherwise hee should take away the good liking both of flying and inclosed hernes from the heronrie, and so the heronshewes haunting the same in nesting time, would forsake it, and the inclosed woulde growe displeased, and fall in feare of the like danger.

The properties of the heronshew.

Although the heronshew be a royall meate, notwithstanding in as much as hee is a water birde, his flesh is full of excrementous parts, hard to be digested, & that aboue any other fowle of the riuer. There is nothing more to bee esteemed of in him for to bee eaten, then the flesh which is gathered about his stomacke or brest. Moreouer, some holde and are of opinion that his bil being steeped for some time in wine, doth make the wine forcible and able to procure sleepe, and bring the body to rest.

To procure rest and sleepe.

Of hunting.

The one and twentieth Chapter.

How that there are three sorts of hunting.

FOllowing our purposed determination, we will intreat in a word or two of hunting, not that we would wish our farmer otherwise to affect the game, then by making it sometimes his recreation, and that in the time of vacation, and surcease from his other businesses, as when he shoulde doe nothing but sleepe, or keepe holidaie at home.

Now there are three sorts of hunting, the one of fishes, the other of fowles, and the third of fowre footed beasts, as are the stagge, roe bucke, fallowe deere, wilde bore and hare. In all these the lord of the countrie farme may finde occasion to exercise himselfe, but especially in the hunting of the fower footed beastes: for fishing is more fit for the farmers seruants, as those whom it best beseemeth to busie their braines on vacant and festiuall daies, with catching fish with the angle or pots made of osiers, that so they may haue any extraordinary fare for their afternoon drinking or supper. The catching of birdes is somwhat prettie and pleasant, but yet if wee will beleeue *Plato*, a practise more fitting a seruile estate then a gouernour or commander. The hunting of fower footed beasts, as an honest exercise hath beene receiued at all times, and permitted by the lawes, especially that which was not vndertaken in the night, neither yet vpon slouthfulnes and contempt of labour: but rather for the better obtaining of a greater readines, nimblenes, cheerefulnes, and strength of bodie: but how-

The profit of hunting fower footed beasts.

soeuer

ſoeuer it is the maſter of our countrie farme, eſpecially if hee be anie great lord, may exerciſe himſelfe ſometimes, and take ſome ſport in hunting after hee hath giuen order and direction for the dooing of al his buſineſſes, as wel in the citie, as at his champion or countrie houſe.

The hunting or chaſing of the ſtag.

The two and twentieth Chapter.

What dogs are beſt for the courſe.

THE hunting of fower footed beaſts, as the ſtag, the wilde bore, the roe bucke, and the hare is performed principally with dogs, horſes, and ſtrength of bodies ſomtimes with ropes and nets, and ſometimes with toiles: but theſe two ſorts of taking of beaſts are more fit for holidaie men, milke ſops, and cowards, then for men of valour, which delight more in the taking of ſuch beaſtes, in reſpect of the exerciſe of their bodie and pleaſure, then for the filling of the bellie.

Foure ſorts of hunting dogs.

Hunting dogs which are fit for to courſe withall, are of fower ſorts, as concerning their colour, that is to ſaie, white, baie coloured, graie, and blacke.

Change: that is to ſay, the wiles and ſleights of the ſtag.

The white are the beſt, for they are of quicke ſent, ſwift, hot, & ſuch as neuer giue ouer for any continuance of heat, or breaking off, bicauſe of the feeting of the horſemen, or the cries and noiſes of men, keeping the turnes and croſſings better then any of the other ſorts of dogs, & are more to be truſted: notwithſtanding they loue to be attended with horſemen, and they do feare the water ſomewhat, eſpecially in winter when the weather is colde. Thoſe which are altogether white are the beſt, and likewiſe thoſe which are red ſpotted. The other which are blacke and durtie, graie ſpotted, drawing neere vnto a changeable colour, are but of ſmall value, and whereof there are ſome ſubiect to haue fat and tender feete.

The bay or fallow coloured dog.

The baie coloured ones haue the ſeconde place for goodnes, and are of great courage, venturing farre, and of a quicke ſent, finding out verie well the turnes and windings, almoſt of the nature of the white ones, ſaue onely that they doe not indure the heate ſo wel, neither yet the treadings of the horſemen, and yet notwithſtanding they be more ſwifte and hote, and feare neither colde nor water: they runne ſurely, and with great boldnes, commonly louing the ſtag more then anie other beaſt, but they make no account of hares. It is true that they be more head ſtrong and hard to reclaime then the white, and put men to more paine and trauel about the ſame. The beſt of the fallow ſort of dogs, are thoſe which haue a brighter haire, drawing neere vnto the colour of red, and hauing therewithall a white ſpot in the

forehead, or in the necke, in like maner those wich are all fallowe: but such as incline to a light yellow colour, being graie or blacke spotted, are nothing wooth: such as are trussed vp and haue dewclawes, are good to make bloudhounds. The white and baie dogs are not fit for any but kings, princes, and great lords, and then not for gentlemen, because they course onely the hart, and not all sorts of game.

The graie dogs.

The graie dogs doe runne well at all sortes of game, that a man woulde haue them to hunt, but they are not so swift nor so lustie as the others, especially such of them as haue their legs of a bay or fallow colour, drawing somewhat vnto a white: and yet notwithstanding they are hot and stout, not fearing water or colde, running with great courage, and neuer giuing ouer the game before they haue killed: but indeede they auoide and shunne heate, the footing of horses, & the noise of men, neither doe they delight in the hunting of anie beastes that are giuen to wiles and crosse windings: but in recompense hereof it is possible that you may see them to ouerrunne the most swift and best dogs, especially after beasts, that vse to run out right.

Blacke dogs.

The blacke dogs are strong bodied, but they haue lowe and short legs, in like manner they be nothing swift, howsouer they may bee of a quicke sent, fearing neither cold nor waters, & they delight most in coursing the rammish, and strong sented beastes, as wilde bores, foxes, and such like, because they neither haue minde, nor yet swiftnes to course and take the beasts that be swift in running. But where as it is commonly giuen out and reported, that there are good dogs of euery shape, it may bee so brought to passe, as that the hare may not make much for the arguing of the goodnes of the dogge, and that there are found of all colours good and faire dogs: for this cause it is meet and requisite that a dogge (of what haire or colour soeuer he be) to the end he may be faire and good, haue these notes and markes following. His head must bee reasonably thicke, rather long then flat nosed, his nostrils wide and great, his eares large, & of a meane thicknes, his backe crooked in compasse wise, his loines great and thicke, his lips thicke & large, his thigh round trussed, his houghes straight, and well set together, his taile thicke, neere vnto his backe, and the rest of it small and leane euen to the ende: the haire vnder his belly stiffe, his legs great, the sole of his foot dry and shaped like to the foxe his foote: his nailes thicke, his hinder parts as high as his fore parts. The male kinde must be short and crooked: but the bitch or female long.

The markes of a good hunting dog.

The signification and meaning of these signes is such: his wide nostrils doe argue his quicke sent, his vaulted backe and straigth hams doe argue his swiftnes: his taile thicke aboue and slender downe to the ende, doth signifie that he hath a strong backe, and winde at will: the stiffenes of his haire vnderneath his belly doth shew that he is willing and painfull, fearing neither water nor colde: his thicke legge,

The reasons of these markes of a good hunting dog.

foxe

foxe foote, and thicke nailes, doth signifie that he hath no fat or gouty foote, and that he hath strong lims, to runne long without griefe or annoiance.

But forasmuch as it is hard to get such hunting dogs when one would, as are both good hunters and faire withall, it will be requisite to prouide a faire bitch of a good race, strong, and of well proportioned lims, hauing great and large sides and flanks: and to procure her to be limed with a faire dog, hauing the marks that we haue spoken of before, and that at such time only (if it be possible) as when the moone is in the signes of *Gemini* and *Aquarius*, for the dogs that are gotten at such times are not so subiect to runne madde, and besides, there will be of them moe dogs than bitches. When the bitch is with whelpe, and beginneth to haue a bagging belly, she may not be set to course least her yoong ones should be kept from euer thriuing: her walke then must not be past the court or house, neuer shutting her vp in any kennell, because she is wearisome, and giuen to loath all meat. When she hath whelped (the fittest time for which is in March, Aprill, and May, rather then either in winter or in the time of great heat) and that the whelpes begin to see, they must be fed with cowes milke, sheepes milke, or goates milke, vnmixt and made warme, neither must they be taken from sucking the bitch, till they be two moneths old, and then feeding them with milke meates, bread, and all sorts of pottage, till they be ten moneths old, and all this while thus to keepe them in the kennell.

The kennell for hunting dogs.

Coursing dogs would be fed all together in one kennell, meete and conuenient for them, to the end they may know & heare one another: because that those which are fed together, they become the better acquainted, and agree better in hunting then those that are of diuers kennels and places.

The feeding and keeping of hunting dogs.

Their meat shall be bread made of a third part of wheate, a third part of barlie, and a third part of rie, because that being so mixt it keepeth them faire and fat, and cureth them of many maladies: for and if it should be made of rie only, it would make them scoure too much: if of pure wheat, it would binde them too much in their bellies, and therefore the one must be mixt with the other. There must be giuen them some flesh meate in winter, but especially vnto those that are leane, and course the stag: but to those that hunt the hare you must neuer giue anie, least they fleshing themselues vpon the greater game, they make light account of hares, which thrust themselues commonly into the midst of tame cattell, to shift off the dogs by that means, who vpon such occasion might leaue off the hare, and fall a coursing the tame cattell; but the dogs which hunt the Hart, would neuer doe it, because the stag is of a more full and strong sent than the hare, as also because their flesh is more dainty and delicate than any other. The

Flesh-meete.

best fleſh meat that can be giuen them, and which doth ſtrengthen them moſt, is horſefleſh, aſſe fleſh and mules fleſh: but as for oxen, kine and other ſuch like, their fleſh vnto them is of too eager and ſharp a ſubſtance. Their fleſh meat muſt firſt haue the hide pluckt off, that ſo they may not haue any knowledge of the beaſt, nor of his haire: good huntſmen make great account of pottage made of mutton, goats fleſh, and oxe heads for their leane dogs, which hunt the hare: and you muſt mingle ſometimes amongſt theſe pottage, a little brimſtone to heat them withall.

Pottage.

Their kennel muſt be made in ſome place ſtanding vpon the Eaſt, through the midſt whereof doth runne ſome little riuer or ſpring: the place wherein the dogs ſhall lie ſhall be builded with very white wals, and floores of boords cloſe ioined, for feare that ſpiders, fleas-wal lice, and ſuch like ſhould breed there. He that ſhall be appointed to keepe them muſt be gentle, milde and courteous, louing dogs of his natural inſtinct, and ſuch a one as will make them cleane, and dreſſe them carefullie with wiſpes of ſtraw and little bruſhes: being ready to giue them ſome pretie dainties to eat, and to draw them alongſt the green corne and meadowes, as well to giue them appetite to their meat, as alſo to learne them to run, and to cauſe them to paſſe through the flockes of ſheepe and other tame cattell, that ſo they may be accuſtomed vnto them and be made to know them.

The diſeaſes of hunting dogs For fleas and vermine.

If the dogs be ſicke, you must vſe the remedies following: for lice, fleas and other vermine, wherewith dogs are loden oftentimes, eſpecially in the times of great heat, you muſt bath them, or at the leaſt waſh them and rub them with a wiſpe, with a decoction made in large quantity, with ten good handfuls of wild creſſes, wild marierome, ſage, roſemary, rue, patience, and ſixe handfuls of ſalt, all being well boiled together to the conſumption of the herbes.

Wormes.

To driue out worms you muſt ſoke perroſin made into powder, aloes powdred, vnquencht lime, and liue brimſtone made likewiſe into powder, euen all theſe in one oxe gall, & with this licour rub the place infected with wormes.

The biting of ſerpents.

If dogs be bitten of ſerpents, you muſt cauſe them to take downe the iuice of the leaues of aſh tree incontinently: or elſe a glaſſe full of the decoction of rue, white mullein, mints & broom, whereunto muſt be added the weight of a French crowne of treacle, applying treacle in like manner vnto the bitten place.

The biting of mad dogs, or mad wolues.

When the dogs are bitten of mad dogs, they muſt foorthwith be caſt into a veſſell of ſea water nine times one after another: or for lacke of ſea water, into common water wherein haue beene diſſolued fower buſhels of ſalt: and this will preſerue them from going mad. And if it happen that you haue not prouided this remedie timely inough, but that now the dog is fallen mad: to the end that you may keepe the other

other from the same mischiefe, you shall be carefull, that the mad dog run not abroad, and therefore you shall kill him by and by, for it is but all in vaine and altogether impossible to go about to cure such madnes: the signes of such madnesse are the drawing vp of his taile at the vpper end, hanging the rest straight downe, a very blacke mouth without any froth, a heauie looke and that aside in ouerthwart and crosse manner. *Signes of madnesse.*

Against the scabs, tetters, itch & gaules of dogs, you must take three pounds of the oile of nuts, one pound and a halfe of the oile of oile lees, two pounds of old swines grease, three pounds of common hony, a pound and a halfe of vineger, and make them all boile together, to the consumption of the half of the vineger, putting thereto afterward of perrosin and common pitch, of each two pounds and a half, of new wax halfe a pound, melt all together, casting in thereto afterward the powders that follow, a pound and a halfe of brimstone, two pounds of reboiled coperas, and twelue ounces of verdegrease, making them all vp together in an ointment: but they must be washed with water and salt, before they be annointed with this ointment. *Gaules. Tetters. Itch. Scabs.*

For the wormes in dogs, you must make a drinke of the decoction wherein haue beene boiled, wormewood, southernwood, and the shauings of Harts horne: or else cause them to swallow downe pils made of Harts horne, brimstone, aloes and the iuice of wormewoood. *Wormes.*

When the dogs are tire', rub their feet with this restrictiue, made of the yelkes of egs, the iuice of pomegranats and soote finely powdred, all of it being well mingled together, and left to settle one whole day.

Dogs are often hurt of wild bores in many parts of their bodies, & then according to the places where they are hurt, they must be ordered and looked to with dressing of their wounds. If the wound be in his belly, and that the guts come foorth vnhurt, you must first put them in againe, and then afterward put into the belly in the place where the hole is a slice of larde, and so sow vp the skin aboue: but the threed must be knit of a knot and made fast at euery stitch of the needle, and withall cut off the threed at euery stitch so fastned: as much is to be performed in the wound that shall be made in other places, alwaies obseruing to put some lard into them. *Hurts giuen by wild bores.*

For wounds which dogs shall receiue, the iuice of the leaues of red colewoorts is a very soueraigne balme (being applied presently vnto the wound) healing them vp very speedily: or else take the iuice of Nicotiana, whereof we haue spoken in the second booke. *Wounds.*

Against the canker breeding in the eares of dogs, take a dramme of sope, of oile of Tartar, Sal armoniake, brimstone and verdegrease, incorporating all together with white vineger and strong water, and rub the cankered eares therewith nine mornings.

If

Taking of cold If the dogs after they haue run in froſt after raine, and ſuch other bad weather, or ſwum the riuers and lakes after the game come to take cold, preſently as ſoone as they come to their kennell they muſt be chafed and dried at a great fire, and after that their bellies rubbed and wiped with wiſpes, thereby to wipe away the dirt ſticking vnto them.

The galling or rubbing off of the skin of their feet. Oftentimes in courſing ouer the fields and rocks dogs come to haue the skin ſtriken off of their feet: for the remedying whereof it will be good firſt to waſh their feet with water and ſalt, and after to make a cataplaſme of the yelkes of egs beaten with ſtrong vineger, and the iuice of the herbe called Piloſella.

Knocks or thruſhes. If in courſing they ſhall haue taken any thruſhes vpon any part of their bodies, with the tip of the Harts horne, or with the bores tuske, you muſt applie to the place a plaiſter of the root of great comfrey, an emplaiſter of melilote and oile of roſes, as much of the one as of the other: but before you applie the plaiſter, you muſt cut the haire away from the place where the griefe is.

Againſt the difficulty of making water To cauſe dogs to piſſe, make them drinke the decoction of mallowes, hollihocks, the roots of fennell and brambles made with white wine.

The diſeaſe of the eares. If dogs haue gotten any diſeaſe in their eares, drop thereinto veriuice mingled with the water of cheruile, continuing to do ſo three or fower mornings.

You ſhall finde a larger diſcourſe of the nature, conditions, differences and diſeaſes of dogges in the firſt booke, in the chapter of the kennell.

The three and twentieth Chapter.

How yoong dogs are to be trained vp, and made fit for the game.

IT is not inough to haue a number of good and faire dogs, well marked with markes, declaring both the ſaid qualities, for they muſt ouer and aboue bee taught and trained vp for the game. Wherefore the huntſman muſt firſt bring them to vnderſtande the ſound of the horne: to ſwim and haunt the water, that ſo they may be the more ready and forward to purſue the beaſt, if ſo bee that hee ſhould ſeeke to ſaue himſelfe by any running riuer, or ſtanding lake. He muſt leade them alſo once a weeke into the fieldes: but not before the age of ſixeteene or eighteene monethes: for before ſuch age they are not throughly growne and well knit in all their members. But eſpecially he muſt well aduiſe to what kind of game he is purpoſed to vſe them, as whether to courſe the hart, or the hinde, the wild bore, or the hare: for looke what beaſts you firſt runne them at, thoſe will

will they best remember alwaies, especially if there bee care had to looke any thing well vnto them.

You must not course with them in the morning, if possibly you can auoide it, for hauing beene accustomed to the coolenes of the morning and comming afterward to the height of the day and feeling therein the heat of the sun, they will not runne any more.

You must not put on yoong dogs the first time within a toile, because the beast running altogether round, & therefore alwaies in the sight of the dogs: so when afterward they should bee brought to run out of the toile, and by that meanes become cast any great distance behind the beast: it would bee the cause of their giuing ouer and forsaking of the game.

It shall be for the better (to the ende they may bee the better trained and fitted) to put all the yoong ones together with fower or fiue old ones, at such time as you purpose to hunt with them.

The fower and twentith Chapter.

How that the Hart and the place where he haunteth and vseth to lie, woulde be knowne before yee course him.

KInges, Princes, and great Lordes (to whom and no others belongeth the coursing of the hart) haue not vsed to course the Hart, before they haue learned of their huntsman, what maner of hart he is, yoong or old, and whether hee be a faire and great one, and such a one as deserueth to bee coursed, and then afterwarde where his haunt and lodging is. *Hunting is for great states.*

The huntsman shall know the age and fairenes of the hart in respect of others, by iudgment of the forme of his foote, the largenes of his tines, his dung, gate, beatings, breakings and rubbings. *The markes of distinction betwixt hart and hart, as also of their age.*

The sole of the foote being great and large, the heele also being thicke and large, the little cleft which is in the midst of the foot, being large and open, a large leg, a thicke bone, being also short, but nothing sharp, and the tips of his clawes round & thicke, are signes of an old hart. The elder harts in their gate doe neuer ouer-reache the former foote with the hinder: for they tread short of it at the least fower fingers, but it is not so in yoong harts, for they in their gate doe ouerreach and set the hinder foote more forward then the forefoote, after the manner of the ambling mule. The hinde hath commonlie a long foote narrow and hollow, with small cutting bones. *The hinde.*

The excrement & dung of harts is not alike at al times, for some is printed, othersome writhen round, and othersome flat and broade: and if it be large, grosse and thicke, it is a signe, that they are harts of tenne tynes, that is to say, such as haue shot tenne small hornes out of the

the ſtocke. In Iune and Iulie they make their dung in thicke wreaths that are verie ſoft, and yet there are ſome of them that make it flat and brode vntill mid Iune. And from mid Iulie vnto the ende of Auguſt their dung is printed, groſſe, long and knottie, well hammered, anointed or gilded: and theſe are the marks to know harts of ten tynes from the old ones.

The cariages or largenes of his tines.

The cariages of a hart are ſaide to be when a hart paſſing through a thicke and twiggie woode, hitteth with his head againſt the boughes of trees, for ſo it commeth to paſſe, that if the hart bee tall and large, the carriages will alſo be ſomewhat large. Now the iudgement which the huntſman can gather of the cariages, cannot be but from after Iulie vntill March: for the other fower moneths, that is to ſaye, March, Aprill, May, and Iune, the harts caſt their heads, that is to ſaie, their hornes. True it is, that they begin to put foorth newe hornes by the moneth of Aprill, and as the ſunne mounteth higher, and graſſe groweth higher alſo and harder: ſo their hornes grow and waxe greater, ſo that by the midſt of Iune, their heads will be fully ſet and garniſhed with all that which they are to beare all the yeere long, prouided that they bee in a good thriuing countrie, and come not by any hurt or annoiance. You may likewiſe iudge of their age by the tynes of their hornes: for as for the firſt yeere they haue no hornes: the ſeconde yeere they haue their firſt hornes, which are called daggers: the thirde yeere, foure, ſixe, or eight tynes: the fourth yeere eight or ten tynes: the fifth yeere ten or twelue: the ſixth twelue, fourteene or ſixteene: and in the ſeuenth their hornes put foorth the greateſt number of tynes that euer they will beare, for after it they put forth no moe, but thoſe grow greater which are put foorth. Yet notwithſtanding the old Harts will alwaies be knowne by hauing the whole root of their horns large and groſſe, the bodie or ſtocke verie bright, and ſet with pearles, and ſtraight and large heades, rather open then turned compaſſe wiſe.

The time whē harts caſt their hornes.

To iudge of the age of the hart by his hornes.

The hornes of an old hart.

The gate or going of the hart.

By the going of the Hart, the huntſman ſhall bee able to iudge whether the Hart be great and long, and ſo likewiſe if hee will ſtande long in courſe before the dogs: for the Harts which haue long paces, holde out longer in courſing, then thoſe which haue ſhort paces: and they are alſo quicker, ſwifter, and longer breathed.

The beatings and breaches of the hart.

It is knowne if the Hart be tall and long legged: and likwiſe of what bulke or bignes his bodie is, by marking where he entreth into the thicke amongſt brakes and ſmall woode, which he ſhall haue let paſſe betwixt his legges: for looke at what height he hath beaten them downe with his bellie, ſo high muſt you iudge him to be on his legs. The groſſeneſſe of his body is perceiued by the two ſides of the way which he hath touched with his body: for hee will haue broken the dry boughes and branches on both ſides; ſo that thereby you

may

may gather the groſſenes and greatnes of his bodie.

As concerning the rubbinges of the Hart, by how much the elder they are, by ſo much the rather are they giuen to rub, and that vpon great trees: wherefore when the huntſman ſhall perceiue the branches of the tree to be broken downe; then hee ſhall be able to gather the height and largnes of the Harts heade, howbeit this is but a darke and obſcure marke. *The rubbing of the Hart.*

Thus and by theſe meanes it may come to paſſe that the Huntſman may collect and gather the age and largenes of the Hart, and yet notwithſtanding remaine as ignorant as euer hee was of the place where he lyeth, and from where hee may finde him in his ſecret haunt and priuie by-walks. And therefore to be aſſured throughly, it behoueth him to haue ſome one or other very good bloudhound, hauing a verie quicke and exquiſite ſent, that ſo he may the more eaſilie finde out and follow the foote of the Hart, beſides which meanes it muſt be prouided that the huntſman be not ignorant of the places in generall, which the Hart is accuſtomed to reſort vnto, although they be diuers according to the moneths of the yeere: for Harts doe change their walkes and feeding euerie moneth, according as the ſunne mounteth and aſcendeth, for which cauſe in Nouember you muſt looke to finde the Harts amongſt furze, briers, or heath, the crops & flowers whereof they loue to brouze and feede vpon, thereby to reſtore nature after they haue beene at rut. In December they haunt the inner parts, and hart of the forreſt, to purchaſe thereby the ſhielde of the woode againſt cold winds, ſnow, & the noiſomnes of froſts following raine. In Ianuarie they draw neere the corners of the forreſts, and ſeeke reliefe amongſt the greene corne fieldes, vpon rye and ſuch like. In Februarie and March becauſe they then caſt their hornes, they hide themſelues amongſt the buſhes, and ſo they continue likewiſe for all Aprill and Maie. In Iune and Iuly they apply the cutwoodes and corne, at which time they are in their prime and fulleſt fatted: then alſo they ſeeke after water, becauſe of the great heate which doth alter & change them, and drinke vp the dewe and moiſtnes of the woode, which then beginneth to waxe harde. In September and October they forſake the buſhes and goe to rut, and then they keepe no certaine place nor manner of feeding, becauſe they range after the Hindes, and followe their waies and ſteps, carying their noſes cloſe by the ground to take the ſent of them, nothing regarding or carefull to finde out by the winde, if there be any ſecretly laid to do them harme: and thus alſo they paſſe and ſpende both day and night, being ſo enraged and feruently caried away with the rut, as that they thinke that there is not any thing that can hurt them; then alſo they liue with a very ſmall, as namely of that which is within themſelues (alwaies following the ſteps and footings of the Hinde) and next principally the *The knowledge of the Hart his priuy haunt and place of retraict.* *The Hart hath a ſeuerall haunt euerie moneth.* *The rut of the Hart.*

the great red mushrums, which helpeth to bring them to the pissing of their tallowe, for which causes, they are very easily killed at such times, if the venison were good.

Thus the huntsman may haue a generall notion of the haunt of the hart, and so he shall not seeke in any other places, then where hee ordinarilie maketh his abode. And now when by the meanes aforesaid he is sure of the place, it remaineth onelie that hee learne his denne or the place of his particular resort and lodging: and for the diligent finding out of the same, hee must betake himselfe earlie to the place, which he knoweth to bee the generall haunt of harts for the present time and howre, as is before declared: and he shall lead along with him his bloudhound that is not giuen to open, to foote him withal, hauing first wet his nostrils with very good vineger, that so hee may haue the better sent. Hee may also gather some perceiuerance by the other markes before specified, that is to say, by the prints of his feete vpon the grasse, by the carriages of his head, his dung, gate, beatings, and rubbings which he may make vpon such things as he meeteth withall in his way: howbeit the huntsman in this case must be ruled according to the variablenes of the place where hee maketh search, for it is one craft and sleight to finde the lodging of the hart amongst the vnderwood, another amongst the corne fieldes, and a third kinde of skill to finde him out amongst the high woods, and they are better learned by practise in hunting and experience, then by instructions deliuered in writing: and to the ende I may not be tedious, I will say no more of this matter.

The meanes of finding out the particular place and lodging of the Hart.

The fiue and twentith Chapter.

How the Hart must be hunted.

The report of the huntsman vnto the king.

THE huntsman after diligent search, hauing gotten as well the fairenes and largenes of the hart, as also his lodging, shall come and make report vnto the king, or vnto his Lord (for wee haue said before that the hunting of the hart belongeth vnto kings, princes, and great states) of his indeuour, representing vnto him the dung of the hart which hee shall haue marked, making rehearsall withall of the markes and notes of the hart which hee hath seene: and then his Lord may make choise of & appoint the day and howre, for the hunting of the hart in the place which hath beene foretold by the huntsman.

Three sorts of dogs, as bloudhoundes, coursers, and for easement.

The day appointed, the horsemen must be readie to be gone earlie in the morning, hauing with them their guide and dogs (as well their bloodhounds and coursers, as those which are to be put on in a set and certaine place for the easing of those which had him in chase before) as also whatsoeuer other their necessary furniture. And when they are come

come to the place they ſhall make diligent ſearch to finde out where the Hart is lodged, and that both by their bloudhound that will not open, as alſo by other meanes which they may deuiſe and inuent before they make choiſe of any ſtanding for their dogs, either courſers or of eaſement.

The mute dog is he which openeth not but followeth the trace of the Hart.

The Hart being once perceiued by the horſmen, or winded by the bloudhound, they muſt place their dogs of eaſement at three or fower ſeuerall ſtands and certaine places, to the ende that they may eaſe the other dogs which are wearie with running, or haue loſt the footing of the Hart, and ſo by them giue new chaſe vnto the beaſt, and ſuch dogs of eaſement ſhall bee ſo ſet in companies, that if the firſt faile and giue ouer the chaſe, yet the latter may bee the more ſtrong, able and fierce kinde of dog, following the chaſe, not coldly a far off, and behinde as the others: but leading the way before all the reſt, and that with great ſtoutnes and courage.

Dogs of eaſement are ſuch as are reſted to runne when others are wearie.

The placing of the dogs of eaſement.

The dogs of eaſement being placed in ſtandings moſt conuenient, the courſing dogs muſt be vncoupled for to run; regard being had according to the place where the Hart was ſeene.

The horſemen tending vpon the companie of dogs, ſhall ſecond the courſing dogs, and wind their horne, the more to incourage them, caſting boughes in the way of the Hart, thereby to hinder his ſwiftnes in running, if ſo bee the huntſman haue not alreadie caſt ſome therein in his watch, at ſuch time as he made ſearch to find out the lodging of the Hart, or elſe the horſmen themſelues, before the vncoupling and letting looſe of the courſing dogs: in the meane time if it fall out that the Hart in his courſe doe happen to paſſe nere vnto the dogs of eaſement, the horſeman which keepeth the ſame muſt marke whether the Hart be epurſued with any of the companie of the courſing dogs, and then preſently to vncouple the companie of his dogs of eaſement, hallowing and whupping the dogs continually, & caſting of boughes of trees in the way where the Hart ſhoulde paſſe: but if hee perceiue that there bee not any of the companie of the courſing dogs, neither yet heare any noiſe of the men that are hunting, he muſt not vncouple any of his dogs, but onely marke the way that the Hart runneth, to make report thereof to the companie, to the ende he may know whether the ſame be the Hart in chaſe or no: becauſe that ſomtimes Harts are driuen through feare out the places where they vſe to lie, hearing the noiſe of the companie of the dogs and horſemen.

In the meane time the horſemen appointed to waite vpon the companie, muſt alwaies ſecond and keepe by the ſides of the dogs, to cauſe them the better to keepe and agree together, and to help them at a default, if at any time they happen to be out of the trace, and not to follow the right way.

They muſt alſo haue a care of the wiles and ſleights of the Hart, who

The craftines of the Hari.

who when hee seeth himselfe neere pursued by the dogs, indeuoureth and bestirreth himselfe how to acquite and rid himselfe of them, making many windings and turnes, and that in diuers manners.

The maliciousnes of the Hart.

For sometimes hee busieth himselfe about the finding out of the dennes of other beasts, hiding himselfe therein, and letting the dogs by that meanes to ouerslip him, as not being able to finde the sent of him, hauing couched his fower feete vnder his belly, and drawing his breath from the coolenes and moisture of the earth: againe hee hath this subtiltie and craft by nature, as to know that the dogs do gather more sent from his breathing and feete, then from any of the rest of the parts of his bodie: But to preuent this his craftie wilines, you must haue cast many boughes in the entrances of such thickets as the Hart is to passe by, to the end they may the better finde the last feeting and breaches, which will yeeld some neere gesse of the place, wherein hee shall be hid.

Other sometimes when the Hart seeth the dogs chasing him, and that hee cannot auoid himselfe from them, he goeth from one thicket to an other, seeking the haunts of hindes and other lesser Harts, and thrusteth himselfe into their companie, and moreouer sometimes draweth them away, and causeth them to run with him the space of a whole hower or more vpon his way, afterward casting them off, and making way for himselfe out of and far from any way. And if it happē that his wiles be found out by the exquisite sent of the dogs and wisedome of the hunters, then he casteth about into his first way, to breake off by that meanes his former traces, and thereby to mocke the dogs; then after that he entreth into some large and wide way, which hee followeth so long as his strength will endure. To auoide these sleights the horsemen must haue an eie when the Hart shall fall into company of other beasts & run away with them, to the end they may stir vp the olde dogs of the companie to pursue the Hart with greater carefulnes, keeping neere about them, to helpe and aide them: and if the Hart haue taken the broad way, to the end he may take away all sent from the dogs (for this is a most certaine thing, that all sorts of beasts doe passe through the broad waies whose earth turneth into powder) in such sort as that the way of the Hart and the places which the horne of his foote did tread vpon, become quickly filled vp againe and couered by the falling together of the dust, the horsemen must looke very carefully, and view the ground very well to see if they can perceiue any traces of the Hart, and then they shall cast the boughes out of their waie lustily, and incourage their dogs, calling vnto them in cheerefull and cherishing manner.

Againe it sometime falleth out that Harts doe run ouerthwart the burned grounds where the dogs can haue no sent, because the smell of the fire is greater then the sent of the Hart, yea and sometimes

the

the dogs doe giue ouer coursing, hauing drawne into their nostrils this euill smell, whereupon the horsemen must goe aside a little out of their way with the dogs, vntill such time as they be got past the same, and then bringing their dogs into order againe, let them incourage and cheere them forward to follow the game.

Sometime the Hart runneth a contrarie course, to that by which he is winded, to the end that his breath may be scattered and dispersed, and that it may not come to the sent of the dogs: as also that he may heare the noise of the dogs which chase him: and then the charge lieth vpon the horsemen to marke his steps and traces.

Againe there be some Harts, which in going from the rest doe make breaches, casting themselues vpon their bellies before the horsemen and shew themselues to be put foorth by the dogs, as if they were wearie, and had beene long chased: these wiles doe shewe them to be verie subtile, and long winded, able to stande a long time before the dogs, trusting in their strength: and this the horsemen must beware of, to the end they may be able to iudge of the deceitefulnes of the Harts: for somtimes they faine themselues ouer chased, when indeed they are not.

The signes and tokens of a Hart ouerchased.

The signes and tokens shewing that the Hart hath beene long chased are these: if in running before the dogs hee neither heare nor see any man, if he hang downe his head, holding his nose vnto the ground, if he stumble and stagger, reeling with his legs: afterward if he see a man vpon the sodaine he lifteth vp his head and giueth a great leape, as who say he were yet strong and lustie: furthermore if he haue in his mouth blacke and dry without any froth, and his toong drawne vp into the same: if in his gate he shut his hoofe as though he went steddie, and yet afterward on the suddaine straineth himselfe and openeth it making great slidings, suffering his bones to kisse the ground verie often, following commonly the trodden path and broad waies; likewise if he meete with a hedge he holdeth along by the side of it to see if he can find any outgate, seeing his strength faileth him to leape ouer.

The hart long chased.

Now after his long running, and manifolde shifts when he commeth weary and spent and that he cannot longer stand out, being past all hope of himselfe, he leaueth the low woods and forests, and flieth to the champion fields or vnto the corne fields & villages bordering next thereto, or else hee betaketh himselfe to some riuer or lake: whereby it falleth out oftentimes that he auoideth and freeth himselfe of the coursing dogs, for in champion places and void fieldes, the sent of the footing of the Hart is very small: and as for riuers and lakes he hath the craft, rather to take downward with the stream, then to swim vpward against the streame, to bereaue the dogges by that meanes of comming by the sent of him.

The horsemen shall see to such his escapes, and therefore if he haue taken his way into any champion ground, they shall finde out his traces by the sight of the eie, and with the blast of the horne they shall cheere vp and incourage their dogs to a new course. If the Hart haue taken the water, whether it be for the cooling of himselfe, or as the vttermost refuge he hath for the sauing of his life, the hunter shall looke at what place the Hart shall haue taken the same and there cast in good store of boughes, attending his passage: and if they see that he commeth not out of the water, they shall cause their dogs to take the water: or else (if they be afraide of causing them to take cold) they shall sende to seeke a boate: or else if they can swim, they shall put off all their clothes, and with a dagger in one hand swim vnto him to kill him: and yet they must looke that they set not vpon him but in some deepe place, because that if the Hart finde ground for his feete, he would be able to hurt one of them with his hornes: whereas in a deepe place he hath no strength.

To become to stand to the abbay.

Furthermore, there must great wisedome bee vsed in the hunting of the Hart, when hee can no longer holde out, but being out of all hope of his life, standeth still, and suffereth the dogs to barke at him, for then hee groweth dangerous, as being giuen to strike with his hornes, the first of the hunters that he can meet withall.

The beere for the Hart, and the barber for the bore.

And this is the cause why it is growne to a prouerbe. A beere for a Hart, and a barber for a wilde bore. Wherefore it standeth euerie man vpon to looke well to himselfe in comming neere vnto the Hart when he endureth the abbaie, and not to aduenture too farre, and hazard himselfe too boldly.

When the Hart is taken, he that shall haue giuen the blowe, shall foorthwith thereupon sound the retrait, to the end he may call togither his fellow hunters and the dogs: and after he hath presented the right foot of the Hart vnto the king, or vnto his lord, then to cut him vp as he shall know it meete to be done. In the meane time he must not forget to take care of the dogs, and to giue them some reliefe and sustenance of the praie they haue gotten in hunting: vnto the bloudhound, that is, vnto the dog which by his sent hath led the way to the Hart his lodging, he shall cast the head and the heart, as his right and due: vnto the rest he shall giue the necke and braine of the Hart, or which is better, he shall take bread and cut it into little lunches into a pan with cheese, and temper the same both togither with the bloud of the Hart in his greatest heate, and afterward put all this prouision foorthwith vpon the skin, stretched foorth vpon the grasle, and in the meane space euerie man shall put his horne to his mouth, and therewithall comfort and cheere vp the dogs.

Some men vse now and then (and yet after this first prouision) to make a seconde with the entrails of the Hart all whole, which the master

maſter huntſman doth caſt vnto the dogs, after they haue ended their feaſt, holding them vp on high: and whiles the dogs are eating theſe entrailes, they muſt be cheered vp with the noiſe of the hornes, ſhoutings and hallowings.

The ſixe and twentieth Chapter.

Of the profit that may be reaped by the killing of the Hart.

NOtwithſtanding that the hunting as well of the Hart, as of other wilde beaſts be vndertaken and performed by great ſtates, rather for the exerciſe of the body and recreation of the ſpirits, then for any other deſire and hope, notwithſtanding the killing of the Hart is not without great profit: and that in two reſpects. The firſt being for the making of meate thereof: and the ſecond for the medicinall helps which may be made of his parts and members.

The fleſh of the Hart.

As concerning the meate made of the Hart, his fleſh is not very pleaſant, if it bee not of that part of him which is commonly called the pizell: for to ſpeake generally according to the truth, Harts fleſh is verie hard, of an euill iuice, melancholike, hard to digeſt in the ſtomacke, and very apt and eaſie to procure many great diſeaſes. It is true that many great ladies (hauing an opinion that the fleſh of Harts being eaten often, doth free and deliuer men from all danger of agues, becauſe the beaſt himſelfe is not ſubiect at all thereunto) at their riſing euerie morning haue accuſtomed to taſte of Harts fleſh: notwithſtanding, who ſo is carefull of his health, ſhould not touch any ſuch fleſh, except it be of ſome tender fawne or yoong hinde, which are made ſeruices for the moſt part at the tables of princes and great lordes.

The medicinall helpes, which may be prepared and made of the Hart, are infinite.

The bone of the Harts heart.

Some finde a bone in the heart of the Hart (howſoeuer there be ſome that think it to be falſe) which is ſingular good againſt faintnes, or ſwouning, trembling, and beating of the heart, and other affects of the ſame, as alſo againſt the venomes, poiſons and dangers of the plague, and likewiſe againſt the hard trauell of women.

The bloud of the Hart.

The bloud of the Hart fried in a frying pan, and put in clyſters, doth heale the bloudie fluxe, and ſtaieth the fluxe of the belly; being drunke with wine, it is a ſoueraigne remedie againſt poiſons.

The priuy parts of the Hart.

The priuie member of the Hart waſhed diligently in water, and the water wherein it hath bene ſo waſhed drunken, appeaſeth foorthwith the paine of the colicke, and retention of the vrine: if it be ſteept in vineger the ſpace of fower and twentie houres, and afterward dried and made in powder, the waight of a French crowne of this powder

Fluxe of blood.

being drunke with water of plantaine, staieth the fluxe of bloud and all manner of fluxe of the belly. Likewise dried and powdred, it may be mingled with remedies which haue power to prouoke carnall copulation. It may also be made seruiceable and of good vse in the pleurisie and against the bitings of serpents, if it be taken either alone or mingled with things which are good for such diseases.

The harts horne.

The horne of the Hart burned, made in powder and drunke with hony, killeth the wormes; which is a signe that the Harts horne hath great vertue against venome, and that not much lesse then the horne of the vnicorne.

The tender hornes of a yoong Hart cut in small gobbets, and put in an earthen pot well leaded, and close stopped with claie, and afterward put in a hot fornace vntill such time as they be dried (they may also be beate to powder, putting thereto pepper and myrrhe) doe yeelde a powder which is singular good against the colicke taken in excellent wine.

The colicke.

The marrow and sewet of the hart.

The marrow and sewet of the Hart, are good to make liniments & cataplasmes for cold gouts, and tumours that are hard, and not easilie softned.

The hunting of the wild Bore.

The seuen and twentieth Chapter.

The best time to hunt the wilde Bore, and the marks of a good wilde Bore.

The hunting of the wilde bore dangerous.

THe hunting of the wilde Bore is a great deale more difficult & dangerous then that of the Hart, inasmuch as the wilde Bore doth not feare the dogs, but tarieth and staieth their comming, and which is more doth sometimes set vpon them so far as till he be amongst them, and all to the end he may teare and rent them with his teeth, whose woundes (especially those that are giuen into the chest of the body) are (as it were) incurable. Wherefore the good huntsman that maketh any accompt of his dogs, for to hunt the Hart, the Roe-bucke and hare, must neuer giue chase to the wild bore with his coursing dogs, but rather with some companie of mastiues, whose proper pray the wild bore is: or else which is better to find the meanes to take him in toiles, or to kill him with a wile and a speare as we shall further declare.

Wounds made by the wilde bore are dangerous.

To hunt wilde bores.

But howsoeuer the matter goe, yet this is to be knowne, that all Bores are not fit to be hunted, but such onely as are not past fowre yeeres old, howsoeuer they may be otherwise both faire, great and fat: for after fowre yeeres the wild bore groweth leane through oldnes of age, and forthwith looseth all his goodnes. Againe all times are not fit to hunt them in, but onely when they are in season and in the best

The best time to hunt the wilde bore.

plight,

plight, as namelie from mid September vnto December, at which time they begin to go to rut: and yet in Aprill and Maie they are more easie to be taken in toiles, then at any other time, because they sleepe more in this season then at anie other time, and the cause is for that they feed vpon strong herbes, which stirreth their blood and sendeth vapoures vp vnto their braine, whereby sleepe is brought vpon them: againe the spring time doth then restore & renew their store of blood, whereby they are brought to take great ease and rest.

The markes to know a wild bore woorth the hunting.

The huntsman therefore shall know the faireries of the bore, and that he is worth the hunting by these markes, that is to saie, by his traces, rooting, soile, and dung.

His traces.

The prints of his traces great and large: the taking of the trace before, round and grosse: the cutting of the sides of the traces vsed, but not shewing themselues cutting, the heele large, his gardes grosse and open, wherewith hee must treade vpon the ground, in the hard wheresoeuer hee goeth; all these things declare him to be a faire and great bore. In like manner the traces behinde being larger then those before, doe shew the thicknes of his haunches: the wreathes and wrinkles which are betwixt his gardes and the heele, if they make their prints vpon the grounde, doe shewe that his steps are great and long. The markes of his traces deepe and wide, doe shewe also his heauines and corpulencie. The rootings of the bore beeing deepe and large, do note the thicknes and length of his head.

The soile of the wilde bore being long, large, and great, doth note and argue the bore to bee great: or else in going from the soile, his greatnes may be known by the entrances of the thickets, by the leaues and herbes which the soile hath touched, because that at such time as he commeth out of it, he beareth dirt and mire vpon him, and therewith the leaues are bemired, as he goeth amongst them: and hence is gathered his height and breadth: or else it falleth out oftentimes that the wilde bore after hee hath beene at soile, goeth to rubbe himselfe against some one tree or other, and there hee leaueth the marke of his height.

The dung of the wilde bore being thicke and long, doth shewe the greatnes of the wilde bore, howbeit the huntsman is not to present it vnto the companie, but onely giue them the viewe of it in place as it lieth.

The eight and twentieth Chapter.

Of the wilde bore, tame swine, wilde bore and wilde sowe, and of their haunt.

The difference betwixt the wilde bores and the tame swine.

THE difference betwixt wilde bores and tame swine is this. The wilde bore in his gate doth alwaies set his hinder feet in the steps of

of his forefeet, or very neere, and doth pitch his steps rather vpon the forepart of the foote, then vpon the heele, resting notwithstanding his gardes vpon the grounde, spreading the same abroad thereupon vnto the vtter sides, the tame swine in their gate doe open the cleft of their hoofe before, pitching rather vpon the heele then vpon the forepart of their foote, and their hinder foot doth not ouer reach their forefoot: the sole of their foote is full of flesh, so that the prints of their steps can not but bee vneuen, contrarie to that of the wilde bore. In like manner the wilde bore maketh deeper rootings, because he hath a longer head, and when he commeth in fieldes that are sowen, hee willingly followeth one furrowe, nusling al along the ridge vntill he come to the end of it: which the tame hog vseth not doe, for he neither turneth vp the earth in so deepe manner, nor yet followeth on along with it as the wilde bore is accustomed to doe, but hee casteth vp one peece of ground in one place, and an other in an other further off, crossing the ridges, the one of them not reaching vnto the other. Furthermore, when the wilde bores goe vnto the corne, they beare downe the same all in a round: but so do not tame swine. The wilde bore also hath this peculiar propertie, namely, that he is neuer meazelled as the tame swine will be.

The difference betwixt the wilde bore and the wild sow.

The difference betwixt the wilde bore and the sow is this: The bore goeth wider with his hinder legs then the sow, and commonly setteth his hinder step vpon the edges of his foresteps on the outside, because of the thicknes of his hanches and stones, which cause them to go wider behinde: which the sowes doe not: for they are emptie betwixt the hanches: for which cause they tread narrower. The sow maketh not so good a heele as the bore, and hath her hoofe longer and sharper before, and more open, her steps and soles of her feet behind, more narrowe then the bores. The bore with much adoe, and hardly, will bee brought to crie when hee is killed, but the sow will not let to make you heare her aloud.

The bores haunt.

The wilde bore hath no certaine abode, and as some say, he is but a traueller, because hee doth nothing but runne from one forrest and woode to an other: and yet he taketh great delight to remaine in the countrie and place where hee was bred: in so much as that if hee bee hunted by dogs from any bush or forrest, he is still readie to run without any stay, vntill he come in the countrie from whence he first came, and where hee was bred, for there he setteth vp the rest of his safegard, and maketh it the the onelie refuge of all his force and strength: hee is also oftentimes founde in the countries where small nuts and beech maste may be come by, for hee more delighteth to feede of them then of acornes.

The

The nine and twentieth Chapter.

Of the taking of the wild bore.

AS concerning the hunting of the bore, it craueth rather many men than dogs, for there is no greater cut-throat to dogs then the wild bore: & yet there may dogs be vſed, but with ſuch diſcretion, as that the horſmen be alwaies mingled with them, & preſſing vpon the bore more valiantly and forcibly then they can: for when he ſeeth himſelfe ſet vpon with horſmen and dogs both at once, euen vpon the firſt puſh they beſetting him hard, do aſtoniſh him, & cauſe him to looſe whatſoeuer his courage, and in ſteed of wrecking his furious moode vpon the dogs he is conſtrained to rnn away and flie the country. Then alſo you muſt let ſlip ſome of your freſh dogs, or dogs of eaſement, but let them not be yoong nouices, but rather old ones, and ſuch as haue been well trained and taught, that they may ſuccour the firſt, and force the bore to a more ſpeedy flight. And you neede not feare that he ſhould betake himſelfe to any turnings, windings, or other deceitfull tricks, becauſe he is heauy, and that the dogs are able to follow him cloſe and hard by. But when after long chaſe the horſemen ſee that the wild bore doth indure the abbaie (which he will neuer do vntill he be mightily vrged) they muſt foorthwith, but as priuily as they can compaſſe him about, and ſet forward all at once directly towards him, hauing in their hands euery one his ſword, and not failing to kill him: and yet notwithſtanding they muſt not hold their hand low, for ſo they ſhould light vpon his head, but they muſt rather beare their hands on high, and ſtrike at him with their ſwords, to giue him deepe blowes, but taking heed that they ſtrike not the bore on that ſide next their horſe, but rather on the ſide further off; for looke on what ſide hee feeleth himſelfe hurt, that way he turneth his head preſently, and ſo he might either kill or wound the horſe. This is a moſt certaine truth, that if there be dog collers hung with bels put about the dogs neckes which are called courſers, when they hunt the bore, that he will not kil them ſo ſoone, but runne away before them, neuer comming to the abbaie.

The wild bore is not giuen to turnings and wiles.

The thirtieth Chapter.

The profit that commeth of the killing of the wild bore.

THe profit comming of the killing of the wild bore is twofold, as is that of the Hart: the one concerning food, and the other concerning medicine, for which it may be imploied and vſed.

As concerning nouriſhment, the fleſh of the bore is better with-

out all compariſon than that of the Hart, for the proofe whereof I referre me to the ſtately bankets of the ancient Romanes, who ſo greatly eſteemed of bores fleſh, as that they did ſerue them all whole vpon the table. The princes and great lords of this our age do prize it highly, but eſpecially and aboue al the reſt the head of the bore, as being iudged a delicate and dainty fine morſell: yoong and tender wilde bores are likewiſe very well accounted of in winter feaſtes and bankets. And to ſay the truth, the fleſh of the wild bore doth nouriſh very much, and begetteth great quantity of good blood: which are the cauſes why Phyſitions make ſuch reckoning thereof, eſpecially when the bore is taken by hunting.

The vrine of the wild bore.

As for the Phyſicall helpes; the vrine of the wild bore hath many vertues: you muſt take the bladder of the wilde bore wherein there is yet ſome quantity of vrine, and with this vrine mingle a little quantity of oile, hanging vp the ſame bladder in the ſmoke of the chimney, and let it abide there vntill the vrine therein become ſomewhat thicke and of the conſiſtence of hony: which done, it muſt be carefully kept in the bladder, to vſe to annoint the nauell, temples, and noſtrels of yoong infants withall which are tormented and pained with wormes, which thing I haue often experimented with good ſucceſſe. This vrine likewiſe thus prepared, doth breake the ſtone of the bladder, eſpecially if there be ſome ſmal quantity of it taken inwardly in drinke: his gal likewiſe is good againſt grauell and the ſtone.

Wormes in yong children.

The ſtone.

The grauell.

The hunting of the hare.

The one and thirtieth Chapter.

Of the pleaſure of the hunting of the hare, and of the dogs that are fit for the ſame.

THe hunting of the hare is more pleaſant, more liuely, and leſſe coſtly (not onely for gentlemen, but alſo for all men of eſtate) than of any other beaſt, becauſe it is accompanied with a thouſand pretty pleaſures and recreations euery howre, & of ſmall charges, beſides the ſecurity thereof, and the auoiding of the dangers and inconueniences which are many, & happen oft to ſuch as hunt the hart and the wild bore: whereunto you may adde the great contentment, and no ſmall pleaſure which may be taken in ſeeing as it were the ſpirit of this little beaſt, as it were admirable in nature, and the ſleights which ſhe vſeth to ſhift and rid her ſelfe from the dogs that chaſe her. Such game we will allow our farmer, yea, and ſo as that I could wiſh him to vſe it as oft as he can, for it can not but affoord him both pleaſure and profit.

And whereas this game conſiſteth principally vpon multitude of dogs,

dogs, the gentleman that wil not do the deed, and hath a yoong company of dogs to teach, muſt obſerue two things principally, to traine and inſtruct them well. The firſt is, that from the beginning he accuſtome them to go vncoupled, and to runne in all ſorts of grounds and countries, that is to ſay, vpon plaines, vnderwoods and thickets, for otherwiſe if you accuſtome them from the beginning to run in one place only, as in woods or grounds that are fallen, and haue the wood cut downe, they will not make any reckoning of the plaines and fields, but they will go and range the grounds where they haue been accuſtomed to finde ſport and take their pleaſure in finding the hare. The ſecond is that he neuer teach his dogs to hunt in the mornings, becauſe of the dew and coolneſſe of the earth, but rather in the height of the day: for if you vſe them to the coole ſeaſons, & then afterward bring them to hunt at the height of the day, they feeling any heat or ſmall winde will not afterward hunt any more.

To fit the dogs for to hunt the hare.

Wherefore the fitteſt time to traine yoong dogs vp in, and to make them fit for the hunting of the hare, is after September vnto December, becauſe that then the time is temperate, as alſo becauſe that the yong hares are fooliſh, and but weake bodied, neither skilfull nor able to worke their wiles: and beſides, becauſe they themſelues do ſtart of themſelues many times before the dogs which take pleaſure therein, and become better entered and enured thereby, then they would bee if they ſhould be hares that would run away & be packing apace from them.

The two and thirtieth Chapter.

The markes of a good hare, of the male and of the female, and of their formes.

NOw although in hunting of the hare, the hunter taketh what he can haue, and not what he can finde; becauſe of the ſwiftnes & wilines of this little beaſt which oftentimes diſappointeth him of his purpoſe: notwithſtanding if at any time it be granted the hunter by the good hap of hunting to chuſe the beſt hare amongſt many, or elſe that ſome Lord not willing to looſe his labour hath ſent his huntſman to finde the hare before he hunt her: the markes of a good and faire hare, and ſuch a one as deſerueth to be hunted, are theſe: Thoſe which keepe in woods or plaines, or which feede vpon little hils vpon the herbe called Penniroyal, or wilde tyme, are much better than they which keepe neere the waters, as alſo better then the little red hares, which are of the kind of conies: for ſuch as keepe neere vnto water are commonly leprous: further, the male is farre better then the female.

The markes of a good and faire hare.

Hares keeping neere vnto water are leprous.

The markes to know the one and the other are theſe: The male hath

hath commonly his dung ſmaller, drier and ſharper at the point, the female hath them greater, rounder, and not ſo drie as the males: the female hath a groſſer body, but the male a more ſlender: the male in comming out of his forme, hath his hinder parts whitiſh, as though he had beene plumed: the male hath alſo red ſhoulders, with ſome long haires mixt amongſt, a ſhorter and more buſhie head than the female, the haire and beard of his iawes long, his eares ſhort, wide & whitiſh: the female hath a long & narrow head, great eares: the haire growing along the ridge of the backe of a darke gray. When the dogs courſe the female ſhe doth nothing but coaſt round about her ſeat and country, paſſing ſeuen or eight times by one place before ſhe euer ſquat: the male doth the contrary: for being courſed with dogs, he runneth ſomtimes ſeuen or eight leagues diſtance from his forme.

To know the forme of a hare, you muſt take the benefit of the night: for in the night ſhe withdraweth her ſelfe into her form, and not in the morning becauſe of the dew: neither yet vpon the height of the day, becauſe of the heat: there is more regard to be taken vnto her traces: for the printe of the hares foot is ſharpe, and faſhioned like vnto the point of a knife, hauing her ſmall nailes all pricked right down into the ground, and they do leaue their print round about drawing alwaies narrower and narrower, hauing the ſole of her foot alway cloſe, after the manner of the point of a knife.

The three and thirtieth Chapter.

The killing of the hare.

AS for the hunting of the hare, the very beſt time to kil her with courſing dogs beginneth at mid September and endeth at mid Aprill, becauſe of the flowers and great heate which then begin to raigne, for both theſe are apt to depriue the dogs of their neceſſarie ſent: beſides that, at theſe times the hares are but yoong and feeble.

Places in which the dogs haue no ſent.

Notwithſtanding there be certaine countries and ſeaſons where and when the dogs haue not any ſent of hares, as in winter in the plaine countries where the ground is fat & ſtrong: becauſe the hare hath her foot vnderneath full of haire, ſo that when ſhe runneth, a fat ground will take hold vpon it, and ſo ſhe carrieth it away with her foot, and ſo all the ſent that the dogs might otherwiſe take, is withheld: and vpon plaines there are neither branch nor herbe for her to hit her body vpon, no more then there is in broad and troden waies. In like maner it is an vnfit time to draw out dogs to hunt in froſtie weather: for they would both looſe their nailes and ſpoile their feet: on the contrarie, the hares run better at that time, than at any other, becauſe they haue their feet furred.

The

The first point making way for the killing of the hare, consisteth in finding out her forme, which the better to finde, you must haue respect vnto the season wherein you goe about it, and the time how it shapeth. For if it bee in the spring or sommer, the hares lodge not amongst the thicke places of woodes, because of the ants, serpents, and lizards, which driue them thence, and so at such times they are constrained to lodge amongst the corne, fallowes, and other weake places. In winter they doe the contrarie: for they take vp their lodging in some thicke bushes, or thicke places of the wood, especially when the northren windes, and other high and low windes doe blowe, for of such they are much afraid. Wherefore according to the time & place, where you shall see the hares to take vp their lodging, you must prepare your dogs to goe and set vpon the hare within her forme, & when she shall be started, the horsemen (which shall not bee aboue three in number) must incourage the dogs to followe the chase, without making of much crying or greatly whupping of them, for feare of setting of them in too great a heate, which might also cause them to ouerslip the traces and not to hold on aright.

That the finding of the forme of the hare, is the first and chiefest step to kill her.

But withall in the meane time, they must take good heede to the wiles and sleights of the hare, which are many and diuers, as in the time of raine the hare doth rather followe troden pathes and broad then at any other time, and if she light vpon any vnderwood, shee will not goe in but to refresh her selfe by the sides thereof, and letteth the dogs passe by: after when they are gone past, shee returneth and runneth back in the same steps by which she came thither, vnto the place from whence she was dislodged, rather then shee would run vp into the forrestes, by reason of the moistnes, which is amongst the woode. When such practises are in hand, the horseman must stay some hundred paces from the wood by which the hare is come, for he shall not faile to see her returne by her former way right vpon him, whereby hee shall bee able at such time to call in the dogs. The horseman likewise shall obserue and marke whether it be a male or a female, and whether she be one that keepeth cõtinually in the countrie, or but a guest for a night: for if she bee a wanderer and not of constant abode, shee will haue her forme in couert, and suffer the dogs to put her vp three or fower times neere vnto her forme: for this is infallible that the hare bred and fed where she is put vp, and especially the female if the horseman obserue and marke the first place and compasse that shee taketh the first time after shee is departed and gone from her lodging being before the dogs, all the rest of the courses that she shall make that day will be by the same places, waies, and muses, if it bee not a male hare come from far, or else the dogs haue hunted her so hard, and wearied her so much as that shee be driuen to forsake her woonted haunt: and this commonly they doe voluntarily betake themselues vnto, if they

The shifts of the hare.

be

be at any time courſed two whole howers without default.

At the firſt when the dogs begin to courſe the hare, ſhe doth nothing but winde and turne traeing ouer one place fiue or ſixe times, and that all in the ſame trace. And this you muſt learne, that if the courſing dogs miſſe of taking the hare one day, then it will bee good for the horſeman to beare in minde the places and coaſtes that then ſhe paſſed through: for and if hee returne at any other time, and haue her in courſe with the dogs, ſhee will paſſe by the ſame places, and practiſe the ſame ſhifts ſhe did the day before when ſhe eſcaped, and thus being before acquainted with her crafts, and waies which ſhe will run, he may grealy helpe his dogs.

Some hares as ſoone as they heare the horne doe ſtart, and take ſome riuer or lake, and then you muſt vſe what good meanes you can to cauſe her to voide the water, drawing the dogs nere the place moſt likely for her landing that ſo they may take her.

The females are more often in practiſing their wiles, and in ſhorter ſpace, which the dogs loue not: for it is a wearieſome irkſomnes to couragious and luſtie dogs, to bee drawne aſide ſo oft: it being their chiefe deſire to courſe ſuch a beaſt as will run out before them, that ſo they may run according as their ſtrength wil ſerue them. And for ſuch hares as are giuen to winde and turne ſo oft, it is requiſite that you take great compaſſe of ground, that ſo you may incloſe all her wiles, leauing no paſſage for her to finde but onely one way to goe out, and by this meanes you ſhall abbridge her much of her helpes, and driue her to forſake her ſhifts and ſleights.

There are alſo ſome hares giuen to run in troden pathes, and high waies, to the ende the dogs might not come by any ſent of them, there being neither branch of tree, nor hearbes, nor moiſture, which can touch their bodies, to gather any ſent for the dogs; in ſuch manner as there would, if they were in other couert places, as woods, corne and other coole places, and eſpecialiie when they feede in anie greene corne, becauſe they reſt their bodies in one place. When the horſman ſhall finde ſuch hares, and ſhall perceiue the default of the dogs, by reaſon of the high way, hee muſt draw them on foreward all along the ſaid high way, following them continually vntill ſuch time as the dogs find her out gate, or elſe vntil he haue found ſome little vally or coole place in the middeſt of the way, where the dogs may ſeeme to haue found her ſent. And he himſelf alſo muſt light from off his horſe to ſee if that he can eſpie any of the traces of the hare, ſuch as wee haue deſcribed them before.

The hare hath a thouſand other ſhifts, all which in generall the warie and wilie horſeman may meete withall, if when he hath ſeene her fetch, her firſt compaſſe, and withall got the knoweledge of the coaſt, which ſhee betaketh her ſelfe vnto in her courſe, he get before her

her to behold her with his eies, and in the same place incourage the dogs, making them to fetch great circuits, to the end they may be sure to include and compasse all her wiles and shifting tricks.

Hares liue not aboue seuen yeeres at the most, and especially the males: they haue this tricke with them, that if the male and the female do liue together in a countrie, they wil neuer suffer other strange hares to abide there, if they can remedie it, except it be such as they haue bred: and thereupon some say: That the more that any place is hunted, the moe hares are found there, because that strangers and those of other countries doe come thither. *The more that a place is hunted the moe hares there are.*

The hare being killed it will be good to giue the dogs their fees, the better to incourage them and to cause them with more ioy to hunt in that place afterward. This their repast or fees may be made of bread, cheese, and some other dainties, all put into the body of the hare, that so it may be moistened and ouer drowned with blood, and after spred vpon the cleane grasse. For their second sort of meate as a more royall banquet if there be store of hares taken, it will be good to vncase one & first taking out her lights, then to cast the whole carkase to the dogs, giuing them leaue to teare and eat her: and after that they haue eaten her to giue them bread least they should proue sick at their stomacks and cast their gorge seeing that hares flesh is enemie vnto them. In like manner when the dog which is taught to hunt the hare, shall be brought to course the Hart, he will not make any more accompt of the hare, because he hath found and tasted the flesh of the Hart, to be farre better, then that of the hare. *The meat that is made of the hare for the dogs.*

The fower and thirtieth Chapter.

What profit commeth by the killing of the hare.

THe like commodity as is found in the killing of the Hart & wild bore, may be found also in the hare: and to speake first of the foode rising thereof, we see not any foode more common, nor more in request in our countrie of France then the hare: it is true in deed that phisitions do iudge the flesh of the hare to be melãcholike, hard to digest in the stomacke and begetting a grosse iuice: but this is to be vnderstood of old hares, as such as are aboue a yeere old, & such as are kept tame in boroughes and in other inclosed places: but the yoong leuerets haue a verie pleasant and daintie flesh to eat: yea in those which are growne great, there are some parts, which are in request, as the loines, the shoulders & haunches. There may be marked in this little beast a marueilous fruitfulnes in nature, for that monthly she bringeth foorth a great number of yoong ones. I know that some thinke, that the male and female are of both sexes, and that both of them do conceiue and ingender as if they were hermaphrodites: but *The fruitfulnes of the hare.*

it

it is a falſe conceiued opinion and a thing altogether ſtrange and vnaccuſtomed to be in the workes and generation that is according to nature. And it is furthermore moſt true that the female being bagd ceaſeth to ingender againe for the time, that is to ſaie, to admit the companie of the male thereby to haue a ſecond conception, but by and by after ſhe hath kindled, ſhe taketh the bucke againe, and that is the cauſe of their ſo great fruitfulneſſe: as much may be ſaid of conies which are a kinde of hare.

The fluxe of the belly. As concerning the medicinall vertues of the hare: the fleſh of the hare well roſted is a great helpe againſt bloodie and humorall fluxes of the bellie: the liuer dried in the ouen and made into powder is ſingular good for them which haue a weake liuer.

The braines throughlie boiled and rubd vpon the gums of yoong children, helpeth them of the paines they haue of their teeth, and helpeth forward their growth.

Take a whole hare both skin and haire (ſaue that you muſt take awaie her entrails) cloſe them vp in an earthen pot well ſtopped and luted: afterward put the pot into a hot ouen, and there leaue it ſo long as till the whole bodie may be made eaſilie into powder, in ſuch ſort as that there be left no manner of fat nor moiſture, for elſe you ſhould be conſtrained to put the pot againe into the ouen vntill euerie part and parcell were brought into powder. The weight of a french crowne of this powder, taken with white wine euerie morning two howres before meate, doth take awaie the difficultie of making water and breaketh the ſtone both of the reines and bladder: but yet before the vſe of this powder, the bodie muſt be purged: and during the time of the vſe thereof, there muſt be applied vpon the reines, two plates of lead of the bredth of fowre fingers, ſewed together betwixt two linnen clothes.

The ſtone of the reines.

The gall. The gall of the hare mingled with ſugar, cleanſeth the eies and taketh away the pearle or ſpots of the eies.

The dung. The dung of the hare being caried about women, hindreth their conception: but one thing of a certainty if it be put vp into the ſecret parts of a woman in forme of a peſſarie, it ſtaieth the termes flowing exceſſiuely, and drieth the mother that is too moiſt.

The bleud. The bloud of the Hare dried or fried, and applied vnto a ſcab or ringworme, drieth and healeth it incontinently.

The bone of the hare. The Hare hath a little bone in the ioynt of her legs, which is ſoueraigne againſt the colicke.

The hunting of the Brocke and Foxe.

The fiue and thirtieth Chapter.

The profite comming of the hunting of the Foxe and Brocke.

THe killing of foxes and brockes, bring neither pleasure nor profite to the hunters: taking profite in this place for meate and nourishment: for the foxe his flesh, (and much lesse the brocks) is nothing pleasant to eate, in as much as it hath an vnsauorie, strong, and wilde kinde of taste. Howbeit *Galen* in a certaine place letteth not to say, that the flesh of the foxe hath the like faculties and vertue with that of the Hare: and yet in another place as retracting his former assertion hee saith, that the foxe is of the same temperature with the dogge. It is certaine that some countrie people hauing not the benefite of any other victuall, liue not vpon any other then foxe flesh, but it is in the time of Autumne onely: because that at such time the foxe feedeth of nothing but of grapes, by which meanes it may bee that his flesh may proone somewhat good. Howsoeuer it be, if anie profite growe vpon the killing of the foxe and brocke, it is onelie because they deuour foule, and annoie the conies and warren.

The flesh of the foxe is vnsauorie.

At what time the flesh of the foxe is good.

Adde hereunto that the Physicians doe make great account of the lunges of the foxe, for the disease of the lungs and shortnesse of breath: and of his grease for the paine of the sinewes: of his bloud for the stone: of the oile wherein the whole bodie of the foxe hath beene boiled, either quicke or dead, (whereof we haue spoken in the third booke,) for all manner of ioint-ach: and of the priuie members of the foxe against the stone.

The profite that the bodie of the foxe doth bring foorth in medicine.

The sixe and thirtieth Chapter.

Of the two sorts of foxes and brockes.

BEfore we goe any further, there are two sorts of foxes, and two sorts of brocks, that is to say, great foxes and little ones accustomed to lie and lurke in their dens, and brocks some like swine, & some like dogs. The two sorts of foxes are sufficiently knowne: the hoglike brocks are whitish, and haue the haire aboue their noses and vnder their throats a great deale more white then the doglike haue: their bodie of a greater bulke, their head and snowt also more grosse. The hoglike in going out of their dens doe freely dung, but euermore they make a little hole with the end of their snowt before, or else scrape one with their feete, and then dung therein: the doglike make

Brocks some like hogs and some like dogs.

make their dung a farre off from their earthes: the hoglike commonly make their dens in sandie or other ground that is easie to digge and open places, to haue the heate of the sunne, and being giuen to sleepe continually, they are fatter then the doglike. The doglike make their abode in tougher earth, or else in rockes, making their holes and dens deeper and narrower then the hoglike, bicause they cannot digge the stiffe and tough earth or rockes, as the other doe the sand and light ground: the doglike haue their nose, throate, and eares yellowish, after the manner of the throat of a Marten, and they are a great deale blacker and longer legd then the others. They two sorts accompany not togither, but they feede of all manner of flesh: they doe much harme in warrens, especially vnto the yoong rabbets which are within their nests, and are very sweete and daintie, but more to pigs and hogs, whereof they feede more then of any other flesh: they feede also of all sorts of wilde flesh, as geese, hens, and such like: they are verie colde and chill, and if they be left in any roome where fire is, they will goe lie in it and burne their feete: they will liue hardly, as also they haue a hard skin: they feare their nose notwithstanding verie much, neither can one giue them euer so little a blow thereupon with a stick, but they die sodainly: they are deadly enimies vnto the foxes, and oftentimes fight with them.

The seuen and thirtieth Chapter.

Of two sorts of earth dogs vsuall to course foxes and brocks withall, and the manner of teaching and training them thereunto.

Two sorts of earth dogs.

AS concerning the hunting of the foxe and brocke, it is to be performed with earth dogs, which are of two sorts: the one hath crooked legs, and commonly short haire: the other hath straight legs, and a shagd haire like water spaniels: those which haue the crooked legs creepe more easilie into the earth then the other and they are best for the brocks, bicause they stay long there, and keepe better without comming forth. Those which haue straight legs serue for two vses, bicause they run as coursing dogs aboue ground, & also take the earth more boldly then the other, but they tarrie not in so long, bicause they vexe themselues in fighting with the foxes and brocks, whereby they are forced to come foorth to take the aire.

How to teach, nurture and traine vp the earth dogs.

Now if it fall out that the huntsman haue not earth dogs readie taught, he may traine them in this manner. The time to begin to take them in hand must be when they are betwixt the age of eight and ten moneths: for if he will not be brought to take the earth at a yeere old, he will scarce euer be able to be made to take it: againe, they must not bee roughly dealt withall in the time of their trayning, neither so handled

handled, as that they may take any hurt of the brocks in the earth, because that if they should be beaten or hardly handled, they would neuer take the earth more. And for that cause it must be carefully looked vnto, that such yoong trained dogges bee neuer made take the earth, where there are any olde foxes or brockes, but to let them first staie out their yeere, and be throughly nurtured, & furthermore there must some olde earth dogs be put in alwaies before them, to indure and beare off the furie of the brocke.

The most conuenient and readiest way to traine them is thus: at such times as foxes & brocks haue yoong ones, you must take all your old earth dogs, & let them take the earth, afterwarde when they shall begin to stand at an abbaie, then must the yoong ones be brought vnto the mouth of the hole one by one (for feare they shoulde beate themselues) and there cause them to heare the abbaie. When the old brocks or foxes shall be taken, & none remaining but their cubs, then you must take and couple vp all the olde earth dogges: and after let loose the yoong ones, incouraging them to take the earth, and crying vnto them: creepe into them baslet, creepe into them, Hou take them, take them: and when they haue holde of any yoong brocke or foxe, they must bee let alone, till they haue strangled him in the burrow or hole, taking heede that the earth fall not in vpon them, least it might hurt them: afterward you must carrie all the yoong brockes and foxes vnto your lodgings, and cause their liuers & the bloud also to be fried with cheese and fat, making them meate thereof, and shewing them the head of their wilde flesh.

They may also bee trained and taught after another manner: as namely, you must cause the olde brockes and foxes to be taken aliue by the olde earth dogs, and with pincers fit for the purpose, take and break all the teeth of the neather iaw, wherein the great gripers stand, not touching the vppermost at all, to the ende that by it may continually appeare and bee seene the rage and furiousnes of the beastes, although they bee not able to doe any harme therewith at all: afterward you shall cast earthes in some medow plot of sufficient largnes, for the dogs to turne themselues, and go in by couples together on a breast, couering the burrowes afterward with bordes and greene turfes. This done the brocke must be put in, and all the dogs both yoong and old let slip and incouraged as hath alreadie beene said. And when they haue baited him sufficiently, you must strike seauen or eight great blowes vpon the side of the hole with a spade, to harden and acquaint them therewith, against the time when you shall stand in neede to vse deluing: then you must take vp the plankes ouer the place where the brocke is, taking hold vpon him with pincers, killing him before them, or else causing him to be stifled by some greyhound, that so there may meat be made of him for them. And you must haue cheese

which you must cause to bee cast them presently after their wild flesh when it shalbe dead: and if peraduenture you woulde not breake all the teeth of the neather iaw of the brocke, yet you must cut off all the greater and maister teeth, that so he may be kept from byting and doing of mischiefe.

The eight and thirtieth Chapter.

The manner of killing the foxe.

AS for the maner of killing of the fox it is much more easie then that of the brocke, herein especially, seeing that after they once sent the dogs which baite them, they gather themselues together, and rush out vpon the sodaine: except it be at such time as the female hath yoong ones, for then they will not forsake them.

The fox his borow. Naturallie they are giuen to dig their earthes in places that are hard to be digged, as in rocks or vnder the roots of trees, they haue but one hole, both it is but strait and reacheth far: when the dogges haue once ouerthrowne the foxe, hee resisteth a little, but it is not with anie such boldnes and courage as to daunt the dogs, neither hath hee anie dangerous byte: and yet some saie that hee hath this shift as to clap his taile betwixt his legs, (when hee seeth himselfe once ouerthrowne by the dogs,) and to pisse vpon it, and therewith to besprinkle the dogs, to the end that feeling the stench thereof, they may be driuen backe and let him depart.

That the fox his vrine stinketh.

How to take the fox without hunting him. If you take a bitch foxe when she is salt, and cutting away her priuie member, and the gut annexed thereunto, with the little testicles or stones, which are the cause of ingendring, (being the same that gelders vse to take from bitches, when they geld them) and put all the same cut in pretty gobbets into some little pot all hot as they were cut awaie, & take *Galbanum* and put it in, mingling altogither, and couering it, that all may not breath out: you may keepe it a whole yeere, and make it serue at any time when you woulde make a traine to allure the dogge foxe, by taking the skin or a collop of lard, and putting it vpon a grid-iron, and when it shall bee broiled and all hot, moisting it in the pot where the priuie part of the foxe and *Galbanum* is, therewith making all your traines: then you shall perceiue the male foxes following of you euerie where: but he that maketh the traine, must rub the soles of his shoes with cowes dung, least they should take the sent of his feete. Thus you may see the meanes howe to drawe on the dogge foxes to any place where you may take them in a snare, or grin, and so kill them in the euening with a crosbow.

This is most true, that if you rub an earth dog with brimstone, or with oile of the lees of oile, and thereupon cause him to take the earth, where

where there are foxes or brocks, they will get themselues thence, and come no more there for two or three moneths. There is furthermore another thing to be noted, that after that the earth dogs are come out of the earths of foxes or brocks, they must be washed with warme water and sope, to rid them of the mould that shall be gotten betwixt the haire and the skin : for else they would grow scabbed of a scab that would very hardly heale.

Some subtile foxe hunters take the foxe without any helpe of dogs, with this wile : they rubbe the sole of their shooes with a great peece of larde lately rosted, at such time as they are about to returne home from the woode, or from any plaine where they knowe that there is any foxes : after the same manner they vse to scatter by the way (as they goe) little morsels of hogs liuer dipped in hony, drawing after them a dead cat : whereupon the foxe following the trace at hand, allured by the sent of the lard and hogs liuers : they haue a man accompanying them with a harquebuze, or arrowe to kill him at a blow. *Earth dogs subiect to the scab.*

The nine and thirtieth Chapter.

The manner of killing the brocke.

AS for the killing of the brocke, it is more difficult then the killing of the foxe (as hath beene saide) because their holes are deepe and narrow, and consisting of many conueiances and passages : for which cause it is meete and conuenient for the vndertaking of such a worke, first to haue fower or fiue men furnished with spades and tooles fit for the digging of the earth: secondly, halfe a dozen good earth dogs at the least, euerie one armed with his collar about his necke, of the breadth of three fingers, and hung with little bels to enter the seuerall earths, to the end that the brockes may bee driuen the sooner to their stande, and the dogs defended the better by those collars, from taking any hurt : and when it is perceiued that the brocks are at their stande, or that the dogs growe wearie and out of breath, or the bels to be ful of earth, you must take vp the dogs, and take away their collars from them : whereas at the first they are of great seruice, and cause the brocke the sooner to take them to their stande.

But before you let slip the dogs, there must regard be had to view the earths what manner of ones they be, and the place wherein they lie, and where the furthest parts of them are : for otherwise a man should but loose his labour : in so much as if the earthes shoulde bee on the side of a hill, it were requisite that the dogs were put in vnderneath toward the valley, to the end that the brocke may be compeld & forced to the vttermost end of the vppermost holes, where the said

earthes are not so deepe as the other, and therfore may the more easily be digged.

But otherwise if the earth should be in some raised peece of ground, and therewithall round about the same, the rising ground being seated in the midst of a flat peece of ground, then the dogs must be put in at the holes which are highest, and neerest vnto the top of the rising ground: but before they be let slip & put into such earths, there must twenty or thirty blowes be giuen with the head of the spade vpon the highest parts of the earths, thereby to cause the brockes to remoove from out of the midst of them, and to cause them to descend to the furthest ends of their earths which are in the bottome of the rising ground. There must alwaies two or three dogs be let slip at the mouths of the holes, that so by their vehemencie and eagernes they may part and put asunder the brocks which shall be together, and force them to flie to their rests.

They haue a tricke to stand the abbaie at the places where their holes do meete, and stoutly to resist the dogs in such places: which, when it is perceiued, it is requisite to smite three or fowre blowes with the spade, and if yet for all that they wil not remoove, you must forthwith discouer them with an augar. Then when it is perceiued that they are fled vnto the furthest part of their holes you must not pearce through right vpon them, for then they would bolt forward againe into the wide spaces and meetings of their holes and offer violence vnto the dogs: for which cause it behoueth that the hole be bor'd right ouer where the voice of the dog soundeth with a round augar, for the nature thereof is to cast vp the earth and not to let it fall downe within, and after that is done presently to put a flat augar into the hole of the round augar, that so it may crosse the hole right in the midst, least the brocke should recoile vpon the dog: & if it be possible to shut the dog forth on the hinder part of the augar, it will be very good, for and if he shoulde bee shut within toward the forepart of it, the brocks might beate and handle him roughly, seeing that sometimes there are founde mustered together in the vttermost ende of one hole sixe or seuen, which might beat and driue backe the dogge. When the hole is thus crosse barred with the flat augar, you must presently make a trench with spades and shouels, to the ende that it may serue to set a man in, and at conuenient time to let in some dogs by the trench, and to cause them to hold a baie in that place, where a man may see warring and fighting on all sides. These things thus furthered, care must bee had that the brockes doe not couer themselues with earth, which they are very ready to doe, being driuen to their vttermost places of flight, in so much as that the dogs are sometime vpon or ouer them, & yet not know where they are. Afterwarde their sorte being throwen downe, you must pull them foorth, not by the whole body, but by the neather

neather iawes: for if you ſhoulde take them by the whole body they might hurt the dogs: & if by the vpper iawe, then you might hurt their noſe which is in them verie tender, in ſo much as that being hurt therein, bee it neuer ſo little, they die incontinently. When they are thus drawne out, they would be put in ſome ſacke, and after carried into ſome court or garden cloſed in with wals, to make them courſing game for yoong earth dogs: but in the meane time it will bee good to drawe your bootes vpon your legs, for when they are once throughly heated they ſpare not to run vpon men after the manner of the wilde bore, in ſuch ſort as that oftentimes they carrie away with them peeces of their ſtockings, yea, the fleſh alſo which is vnder them.

The fourtieth Chapter.

The hunting of the conie.

That conies are harmefull.

WE haue intreated of conies largely inough where wee ſpake of the warren, the hunting whereof is profitable, not onely in reſpect of the prouiſion of foode which it miniſtreth, and that very good, but likewiſe in reſpect of the damage which this little beaſt bringeth vnto corne, trees, and herbes: and that ſo dangerouſly as *Strabo* writeth, as that certaine nations were conſtrained in the daies of the raignes of *Tiberius* and *Auguſtus* to ſend embaſſadors to the Romains to haue their aide and ſuccour againſt the vrgent and ſore preſſing iniuries and damages which their countries ſuſtained through the exceſſiue number of this little beaſt.

Strabo.

We haue made in our treatiſe of the warren two ſorts of conies, the one of the clapper, and the other of the warren: thoſe of the clapper are eaſie to hunt, becauſe they are tame: thoſe of the warrē are ſomwhat more hard to take, becauſe of their nature more inclining vnto wildenes: the manner of hunting them is chiefly of two ſorts, and both of them very well knowne, that is to ſaie, either with purſnets, or with the ferrets: as concerning the ferrets they are put into the holes of the conies to fight with them, whereby they being aſtoniſhed & frighted, bolt forth by and by out of their holes, & fall into the purſnets which lie ſpred vpon the tops of their holes: ſometimes the ferret doth kill them within, which falleth out to bee the occaſion of no ſmall attendance oftentimes vnto the hunters.

The hunting of the conies of the warren.

The catching of birds.

The one and fourtieth Chapter.

That men of olde time made no account of catching of birdes.

THe taking of birdes hath not beene much approoued nor liked of by men of olde time, by reaſon of the little exerciſe which it

affoordeth: seeing they made no account of any manner of hunting, whereby the bodie receiued no kinde of exercise, wherby it might be made more nimble and ready to manage matters of greater importance: againe, we find not any mention made of the hunting of birds, in the bookes of the auncient writers as *Aristotle* or *Plinie*, who seemeth not to haue beene ignorant in any thing that might make for the truth of his writings: neither yet of hauking, which is the noblest kind of hunting of birdes of all the rest. All which notwithstanding, the men of our time haue not ceased to put in practise many sorts of taking of birds, as, with birdes of the praie, which excelleth all the rest, with great nets, small nets, tonnelling, fire, snares, bundles of strawe, with the crosbow, long bow, nooses, pit fals, chirping, pipes, horse, crow, bell, hand, and many moe waies, which are well inough known to birders: we will first speake of hauking.

Of hauking.

The two and fourtieth Chapter.

What hauking is.

IT is most certaine that the skill and knowledge of hauking hath beene brought into an arte of late time as hath beene said; ancient writers as *Aristotle* and *Plinie*, the admirers of high and excellent things, and the diligent and industrious searchers out of all thinges, woulde not haue cast behinde them so great and famous a worke of the skill of man, as to lure and reclaime the birdes of praie, but would haue written of it, if it had beene then in vse. For this is a wonder to see a birde which hath beene wilde to become tame, to drop out of the skies and to light vpon a mans fist: to soare aloft as high as the cloudes to seeke other birds to kill them, and also to make warre vpon the fowles, and such as liue below vpon the earth, and withall to take certaine fower footed beastes, as the hare, rabbets, and conies. This skill is now a daies so highly honored, as that the great nobles of the world, will that it should bee consecrated wholie to themselues, as reseruing it for a pastime onely beseeming them, and in this our countrie of France it is had in such price, as that the gentleman which is ignorant in this skill, & that other of hunting, is lightly prized, as though he lackt the two things which of all other (chiualrie and martiall skill excepted) are the most rare and excellent.

Now as hauking is the arte and skill of luring and reclaiming of birdes of the praie, to cause them to flie at other birdes liuing either in the aire, vpon the earth, or about the waters: so hee is called a faulconer whose place and office it is to reclaime such birdes: wherein if wee please to looke a little more neerely into the name, it should seem that

that the later Frenchmen haue folowed the elder and ancient Frenchmen and Greekes in their giuing of names. For euen as the ancient Frenchmen were of iudgement that the name of *Sacre*, which the Greeks named ἱέραξ, & the Latins *Accipiter*, was the general name vnder which should be comprehended all birds of pray (howsoeuer that *Sacre* in French, & ἱέραξ in Greek be the special name of a bird of pray) euen so the Frenchmen of our time haue agreed together, that the faulcon should bee the chiefe in his kinde, and affoord the generall name (as by the way of surpassing excellencie) vnto all other birds of pray: because that the faulcon (compared with all the birds of pray) is the best of wing, and exceeding all the rest in goodnesse, stoutnesse and tractablenesse, as if a man were disposed to say, the faulcon gentle, the pilgrim faulcon, the Tartarie faulcon, the Barbarie faulcon, the Gerfaulcon, the faulcon Sacre, the faulcon Lanier, the Punician faulcon, and so of the rest.

The three and fortieth Chapter.

What birdes are good to make haukes of.

NOw we must not thinke that all birdes of pray are good and fit to make haukes of, but onely such as are stout and of a resolute courage, and are able to fly any bird either water fowle or land fowle, of which nature there are ten speciall kinds, sufficiently known of euery one, and for the most part very common to be had in France, that is to say, the Eagle, the Gripe, the Buzzard, the Sparrowhauke, the Gerfaulcon, the Merlin, the Faulcon, the Lanier, the Sacre, and the Hobbie.

Fowre of them flie from the fist and kill at randome, as the Buzzard, the Sparrowhaukes, the Gerfaulcon and the Merlin: and fowre of them lie aloft in the aire as the Faulcon, the Sacre, the Lanier, and the Hobbie. As for the Eagle and the Gripe, they are not any thing knowne in France. A great part of these birds (the Gripe excepted) haue the feathers of their trains and wings very much glistring for the most part. All of them haue their beakes and talons crooked, and they are almost like one vnto another for they shew no difference except it be in greatnes, seeing likewise that their colour doth diuersly change according to their mues, which cause them to becalled Hagards or Sores, all one with that which is vsually done by dried herings which are called Sores or red herings. There are verie manie birdes of the praie which are rouers abroad, neither can it be learned well from what country they come, nor whither they go, so that we might alwaies remaine ignorant of what countrie our haukes are; were wee not giuen to vnderstand by them, which vse to bring haukes out of Italie, Germanie, and other strange countries. Such as bring

vs haukes do take them for the moſt part with lime twigs, which is the cauſe of the cruſhing of their feathers, which yet may at pleaſure be taken away with warme water.

But whether they be brought from far, or bred neere about vs, for to reclaime & bring them to the lure, firſt, they muſt not be taken out of the neſt, before they be ſtrong and growne prettie great ones and able to ſtand vpon their feet: for and if they ſhould be taken away ſooner, yet they muſt not be handled but kept in a neſt as like vnto their owne as may be. Afterward as the time ſhall affoord they are to be ſet vpon blocks, or vpon ſome pearch for the better preſeruing of their feathers from grating vpon the ground.

They muſt be fed with liue meat as oft as may be, becauſe it will make their feathers to put forth the better. Notwithſtanding the meat & fleſh that is more then ordinary good for them, is to feed them with the legs or neckes of hens: cold fleſh is naught for them: beefe, porke and ſuch other are of too ſtrong digeſtion for them, and eſpecially the fleſh of night beaſts, that is to ſay, ſuch as flie about in the night, and are ſcarce euer ſeene in the day time, ſuch are the great duke, the little duke, the owle, the ſhrich owle, & the bat, for if they ſhould eat thereof, they would die: the fleſh of pigeons, yoong ſwallowes and mutton, is far better for them: hens fleſh being ſweet & pleaſant doth trouble the belly of the bird, if ſhe eat it cold: wherfore the bird that is greatly delighted with ſuch fleſh might poſſibly forſake the game, and ſeaze vpon hens, if ſhe ſee any in her way as ſhe is flying. Wherefore to meet with this inconuenience you muſt feed the bird with yoong pigeons, or yoong ſwallowes: the fleſh of pies and olde pigeons is bitter, and bad for theſe kinds of birds: cowes fleſh is bad for them, as making them too laxatiue, which commeth by the heauines thereof, which cauſeth hard digeſtion. And if neceſſitie compell you to feede them with groſſe fleſh, for want of better, let it be tempered and waſhed with warme water: if it be in winter you muſt preſſe it, & in ſommer it muſt be waſhed in cold water. The fleſh that you feede your birds withall; muſt be picked that there be not fat ſinewes, or veines left vpon it: you muſt not ſuffer them to eat whiles they will at once, but with ſome ſmal diſtance of time betwixt, letting them reſt in eating, and now and then to hide away their meate, before they be full gorged, and then afterward to giue it them againe: but when it is taken from them, as alſo when it is giuen them, they muſt not ſee it, for feare of making them bate.

Likewiſe it is good to make them plume vpon ſmall birds, as they did in the woods: yeerely in the beginning of autumne they muſt be brought downe by laxatiue medicines, if they be too high; as namely, by giuing them aloes with their meate: which muſt be of ſome good liue and warme meate, for otherwiſe they would be taken downe too much.

much. After that they haue beene purged, you muſt prepare them for the game, and againe when you are purpoſed to flie them, it will not be amiſſe to giue them caſting of tow couered with fleſh and made in forme of a pill, and that at night, to the end they may caſt it vp againe in the morning with much more flegmaticke matter: for by this means they will become more healthfull, of a better appetite, more empty, ſwift and readie for the pray. Porkes fleſh giuen them warme with a little aloes maketh the bird looſe and to ſlice out readily: but you muſt obſerue and ſee that ſhe be put in a warme place after ſhe hath beene purged, and withall to feed her on your fiſt with ſome liue bird; for at ſuch times her entrailes are much dried. They are diſcerned to be ſick when their fundament ſwelleth and becommeth red, as alſo their noſtrils and eies. And thus much of the luring and reclaiming of them in generall, now let vs go vnto the particular.

To purge the bird.

To cauſe her to ſlice out.

Signes declaring the birds of the pray to be ſicke.

The fowre and fourtieth Chapter.

Of birds of the pray in particular.

THE vulture called of the Grecians γύψ, and of the Latines *Vultur*, is the greateſt bird of pray, a paſſenger (or bird for a time) in Egypt, knowne in this country rather by his skin and feathers then othrewiſe, becauſe the skinners are woont to make ſtomachers to lay ouer the ſtomacke, and the fletchers feathers therof to ſet vpon arrowes. They may be fed with ſmall tripes, dead carcaſes, and outcaſtings of beaſts; likewiſe ſome report of them that ordinarily they follow camps, becauſe of the dead bodies; they cannot riſe from the earth to flie, except they firſt take their aduantage by running, or elſe take their leaue vpon ſome great but.

The gripe.

The eagle is called the king of birds, very vndhandſome to cary vpon the fiſt, by reaſon of his corpulencie: hard to reclaime being once wild, becauſe of his boldnes, might, readines, and eaſie inclination to hurt the faulconer in the face or elſewhere. Wherefore who ſo deſireth to haue him good, muſt take him in the neſt, and reclaime him with courſing dogs, to the end that when he is to flie, he may follow them, that ſo they hauing put vp the hare, foxe, roe-bucke, or any other ſuch beaſt, he may ſeaze vpon it to ſtay it: he may be fed with any manner of fleſh, eſpecially of ſuch beaſts as he taketh and ſeazeth vpon. The faulconer muſt be diligent to attend him wel, becauſe he is very apt to flie away, but that miſchiefe may be preuented by ſewing the feathers of his train in ſuch ſort as that he cannot ſpread them to fly with them: or elſe by plucking bare the hole of his fundament in ſuch ſort as that it may appeere, for therupon he being driuen into a feare of the cold, he will not be haſty to ſoare ſo high: the eagle is knowne to be good and faire, when he is of a red colour, hauing deepe eies, and a whiteneſſe vpon his head or backe.

The

The sparrow hauke and the buzzard.

The sparrow hauk & the buzzard differ not in any other point than in greatnes and strength: because the buzzard is of a stronger nature, and therefore not so soon sicke as the sparrow hauke, they are both of one kinde, as are also the rauen and the iay, the great dog and the little one, and both of them are of two sorts, either such as are taken abroad in the woods, or else such as are taken yoong out of the nest. Of this sort there is good choise to be made, in respect of their aptnesse to learne; as also of those which are fliers but haue neuer mued their feathers, neither made any aire or fed any yoong ones.

The goodnes and fairenes of a sparrow hauke is known by their being great and short, and yet hauing a little head and somewhat round aboue, a thicke beake, the eies somewhat hollow, and the circle about the apple of the eie of a colour betwixt greene and white, a long and somewhat thicke necke, open in the place where the reines lie, sharpe towards the traine, not very long, set with good and large feathers, hauing flat and short legs, sharp talons, thicke and broad shoulders, long and small feete, blacke feathers when they are taken yoong in their aire, and which follow the old one from bough to bough, hauing neuer yet mued.

The way to take them is thus: the birder must be hid behind a bush, and before the bush a plaine or smooth aire but fowre square, and fixe sticks prickt downe about it of the thicknes of ones thombe, and of the height of a man, three on euery side: to these sticks you shall tie nets of green threed that is very smal, & to them a small line or cord, which shall be at the command of the man that is hid behind the bush: within the aire there shall feed diuers small birds, especially spinks, or chaffinches: whereupon the sparrow hauke will not faile by and by verie fiercely to flie into the nest, thinking to take the birds, but indeed becomming fast, and ouercast in the nets: then the birder shall take her and bind her wings below, together with her legs and traine, that so she may not struggle or beat herselfe.

They are purposely woont to hide themselues in winter vpon long poles, amongst high and tall trees, vnder some small and slender tree in some hedge row: they are reclaimed by keeping them long, and oft vpon the fist, but especially at the breake of the day: they must be fed twise a day, or once, as when it is determined to flie them the day following: for then she must be kept sharpe, that so she may bee the more eager vpon the pray; which likewise they will performe if they haue put off their gorge of the same day, which is perceiued by the emptines of their gorge. They mue yeerely in March or Aprill, and at such times they must be kept in warme places, or in such places as where the South sun shineth against some wall. Their meat must be of good flesh, as birdes or mutton, that so they may become verie fat: the sparrow-hauke is apt to flie away, but to preuent the same,

her

her keeper must be carefull to doe her no hurt, neither yet to gainsay her in any thing, being giuen to be disdainfull: when he goeth forth to flie her, hee must not let her range any farre way off, because that if she misse of the birde she flieth at, she goeth for anger, & flieth to some tree, refusing to returne againe to her keeper: he must not flie her too oft, but content himselfe with what she can reasonablie take, giuing her of her pray to feede vpon, that so shee may perceiue and find that her pray is something woorth vnto her, and thereby become the more freely stirred vp to flie: the birdes which she taketh, are the partridge, quaile, stare, blacke bird, and other such like.

The diseases of the sparrow hauke.

There must great care bee had to heale her when shee is sicke: if she fall into an ague after much flight, or by reason of other accidents, shee must be set in coole places, vpon some pearch wrapped about with wet clothes, and feede her a little and often with the flesh of little chickens, first soked in water, wherein haue beene steeped the seedes of cucumbers or gourds: if shee be ouercooled, she must bee set in warme places, and fed with the flesh of some cockrell or pigeōs foaked in wine, or in the decoction of sage, margerome, or such other hearbes: if she haue lice, you must annoint her pearch with the iuice of nightshade or wormwoode: if she haue the wormes in her belly, you must powder her meate with the powder of peach tree leaues: if shee digeste her meate ill, and keepe it altogether, you must make her swallow downe the hart of a frogge into her throate, pulling the same backe againe by and by, being holde by a small thred, for so you shall make her cast all her meate: if she haue the gout in her wings or legs, you must let her bleed some fewe drops of bloude vpon the veine that is vnder her wing or thigh: if shee haue the gout in her foote, you must annoint her feete with the iuice of the hearbe called in French *Le-Etorelle*, as also her pearch, annointing the place afterwarde with tallow.

The faulcon (as we haue said) in the arte of hauking, is sometimes a generall worde taken for all kindes of haukes, sometimes it is taken for a speciall worde, and according to that sense there are diuers sorts of that name, which I omit to intreate seuerally of, because of such as haue written of the nature of birdes: but howsoeuer the faulcon is the prince of the birds of praie (I meane in respect of flight) for her stoutnes and great courage, and is to bee accounted of great value when shee hath a rounde head, and the top of her head is full, her beake short and thicke, her nostrils great and open, her eie browes high and thicke, her eies great and cloaked, a long necke, a high brest, large shoulders, the feathers of her wings thinne, long thighes, short and thicke legs, greene, great, and well spred feete, blacke, sharpe and pearcing talons: and which is for bignes neither too great nor too little.

The

The faulcon as al other birdes of pray, hath her tierselet, and they are called of the Latines *Pomiliones*, that is to say, small birdes, resembling them, and nothing differing from them, saue onely in greatnes: and they are all of them as it were the males of the birdes of pray, the females being for the most part of greater bulke and bodies, then the males. That of the faulcon is called nothing but a tierselet, or the male faulcon. The tierselets of the other haukes haue their proper names: as the male sparrow hauke is called a musket: the male lanier a laneret: and the male Sacre a Sacret. The tierselet of the faulcon hath his feathers verie glittering, his head and eies blacke, ashe coloured vpon his backe and traine, and yet glittering: hee is a hauke for the lure, as also the faulcon, and not for the first. His legs and feete are yellow, hauing for the most part a pale breast, hee carieth two very blacke spots vpon his feathers, on the sides of his eis. To reclaime the faulcon, you must haue him commonly vpon your fist, feede him with the wings & legs of hens soked in water, and set him in a darke place, sometimes presenting them with a bason full of water, wherein they may bathe themselues, and after their bathing, drie them at the fire: they must bee vsed first to take small birdes: then indifferent great ones, and afterward great ones: but you must not feede them with any part of the birdes which they shall haue taken. They flie merueillous swifte, and mount very high, there houering and soaring, but withall still looking downeward, and when they see the ducke, the greene goose, crane, or heron, they come downe like an arrow, their wings shut and drawne togither, right vpon the fowle to breake in vpon her with hir talons behinde, at which time if they happen to misse, and the fowle flie away, they presently flie after, but and if they cannot seaze vpon her, as inraged and angrie, they take so long a flight thereupon, as that they loose their master.

The faulcon is more fit then any other hauke to flie the heron, & all other fowle of the riuer. Her diseases and the curing of them, are like vnto those of the sparrow hauke: howbeit the faulcon is of a stronger nature then the sparrow hauke.

The hobbie is the least of all haukes in respect of bodie except the merlin, and is likewise for the lure, and not for the fist: being of the number of those that soare aloft, as the faulcon, the lanier, and the Sacre. This birde is sufficiently knowne euerie where: for there is not any countrie where the hobbies do not follow the hunters, in as much as it is the proper worke of the hobbie to make her praie of the little birdes as they flie, as by name, the larke: this is his speciall propertie that hauing founde the hunters in the fielde, going to hunt the hare or the partridge, hee keepeth them companie, still flying ouer their heades, hoping to meete with some one little birde or other which the dogges shall put vp: but for the most part these little birdes doe

rather

rather chooſe to become a pray vnto the dogges, or elſe to finde out ſome meanes to ſaue themſelues amongſt the horſes, or to be taken aliue, than to commit themſelues to the mercy of the hobby their mortall aduerſarie. But howſoeuer, the hobbie will not follow the hunter longer than a certaine time, as though he had his houres limited him: for leauing them he goeth to looke out the place of his reſt amongſt the woods of high timber trees, where they keepe and pearch ordinarily. He hath a blewe beake, yellow legs and feete, the feathers vnder his eies verie blacke, the top of his head betwixt blacke and a darke yellow, two white ſpots aboue his necke, but vnderneath his throat and on either ſide of his temples ruſſet ones, his wings verie blew, his backe, traine and wings blacke on the vpper ſide, his traine very much conſiſting of variable colours vnderneath by reaſon of red ſpots traced ouerthwart amongſt the blacke: if you ſee him flying in the aire he may be perceiued to be ſomewhat red vnder his traine and betwixt his legs.

The hobby is ſo quicke and ſwift, as that he dare aduenture vpon the rauen and giue him many a drie bob in the aire.

The merlin is the leaſt of all other haukes which faulconers make any vſe of, he is for the fiſt and not for the lure, howbeit for neceſſities ſake, he may be trained to the lure, he reſembleth the faulcon ſo naturally as that there may ſeeme to be no difference betwixt them, ſaue onely in greatnes: for he hath the ſame geſtes, plumage and conditions: wherefore he muſt be reputed as royall as the faulcon, or at the leaſt of the ſame linage and nature with the faulcon. He is very ſtoute of courage, for although he be not much bigger then a blacke bird or pigeon, yet he dareth to aduenture vpon the quaile and partridge, and ſuch other birds greater then himſelfe, and his courage is ſuch as that oftentimes he will flie them to the next houſes or villages, yea into burning fire, and vnder the garments of men or women. He muſt be fed and handled after the ſame maner that the faulcon. It is the onely bird amongſt all the other birds of pray, which hath no difference or diſtinction betwixt the male and the female: for there is not found any tierſelet of the merlin. *The merlin.*

The gerfaulcon is a bird that is ſeldome ſeene, except it be amongſt faulconers belonging to great Lords, ſhe is a great bodied bird: in ſo much as that ſhe is thought of ſome to be a kinde of eagle: ſhe is fit to flie at any thing, for ſhe is bold and neuer giueth ouer anie thing, but ſhe is more harde to reclaime and bring to the lure, then any other hauke, becauſe ſhe is ſo venturous and fantaſtical, for and if ſhe be not handled gently, and haue a mild maſter to vſe her kindlie, ſhe will neuer become reclaimed. This is the ſtrongeſt of all other birds except the eagle: ſhe is kept vpon the fiſt, ſhe is long bodied, hauing her bil, legs and feet of a blew colour, her talons very open and long: ſhe is *The gerfaulcon.*

a cunning workeman at the taking of the birds of the riuer: for shee wearieth them in such sort, that in the end they are forced to yeeld, as not being able to diue any more.

The sacre. The sacre being a principall bird amongst those of the pray, is like vnto the faulcon in greatnes, a hauke that is good for the kite, but he may be made fit for any wilde flesh, as also for the open field to take wild geese, feasant, partridge, and all other sorts of wild fowle.

The sacre is of more ill fauoured coloured feathers than any other hauke, for she is of a colour as it were betwixt red and smokie, short footed, hauing blewe legs and talons. It is a wandring bird and seldome found in this country: her tierselet is the sacret: so that the sacret is the male, and the sacre the female. Noble men desirous to haue some sport betwixt him and the kite, do first make the kite to stoupe (for the kite is woont in the sommer to keepe on high in the aire, to enioy the coolenes of the aire, which is greatest in the middle region of the aire) by hauing some one or other faulconer to carrie a duke vpon his fist, hauing a certaine quantity of a foxe taile hanging thereat, thus letting her flie in some plaine ground, they giue the kite occasion to stoupe: for when the kite is aduised of the duke he stoupeth by and by vnto the ground, & drawing neere vnto her, doth there keep himselfe without doing any other thing but beholding of her as maruelling at her forme: then the sacre is to be cast off at him: who thinking himselfe swift, hopeth by flight to ouertake him: whereupon the kite mounteth vpward, turning round therewithall as much as he can: and so the combat becommeth pleasant to behold, especially if it be in a plaine without trees, and that the aire be cleere and without wind: for one shall see both the sacre and the kite to mount so high, as that they will be both out of sight: but all will not serue, for the sacre will make him yeeld, beating him downe to the ground with such thumps, as he lighteth vpon him withall.

The lanier. The lanier differeth not much from the faulcon, and he taketh his surname of the faulcone: for he is commonly called the faulcon lanier: he is commonly found in this country, and for that he is of gentle conditions, and better endureth grosse meats than any other hauke, men are woont to content themselues with him, causing him to serue their purpose euerie way. Faulconers choose those laniers that haue great heads, short bils, blew and yellow feete, their forefeathers of a mixture of blacke and white, not hauing ouerthwart strakes, as the faulcon, but straight spots going along the feathers, a short and somewhat thicke necke, as also a bill of the same fashion. The lanier is the female, and the laneret is the male, and hath not so big a body as the female, neither yet so well esteemed of, but as for the rest he is almost like the female in plumage. There is no kinde of birde that keepeth his pearch more constantly. He abideth with vs in winter, and is to be seen of vs

at

at all times, contrarie to the fashion of others, which keepe not in our countries but in the sommer time. Faulconers when they would make the lanier a forrester, they put him in a lower roome, so darke as that he can see nothing, except at such times as he is fed, and likewise they neuer carrie him vpon their fist but in the night.

And when that he is readie to flie, they make a fire in the chamber for to heate him, that so he may afterward be bathed in pure wine, and hauing dried him againe, they giue him to feede on the braines of a hen: then getting forward before day toward the place where the game is, they cast him off a good way from the place where the crane is, at such time as it beginneth to be day: and though hee take him not the first day it is all one, for it will bee as good in the daies following, and especially from after mid Iulie vntill towards the end of October. And yet after the mue he will be better then before: but it is not good in the time of winter.

Thus much of the manner of luring and reclaiming of haukes, as well in generall as in particular: and yet it remaineth that wee speake a word or two concerning the same matter.

You must vnderstand that all birdes of the pray doe serue to flie either vpon riuers, or else in the fields: of which some flie from the fist, and that without any spare, of this sorte is the buzzard, the sparrow hauke, the gerfaulcon and the merlin: The others flie on high, as namely the faulcon, the lanier, the sacre and the hobbie: the one of them is called from the flight, by holding out the fist vnto them, and the other by casting out vnto them, the lure, that is to say, an instrument made after the fashion of two fowles wings coupled together hung at a leash, and at the ende thereof a tennise ball or crooke of horne: for by these lures the haukes are allured, thinking them to be liue hens.

Some of them begin not the game, but follow it being begun by the haukers, as we haue said of the eagle. To be breef, haukes seeme not to differ, saue that all of them doe not flie at all kinde of birds and foules alike, for in deede euery one of them buckleth himselfe vnto the bird, to the flying whereof he is giuen and addicted, and not to others. And as concerning all the sorts of flying and hauking, you may finde a more ample treatise in the particular description of the nature and properties of euery bird of pray which we haue made. *To lure.*

The fiue and fortieth Chapter.

Of the taking of melodious singing birdes.

WEe haue spoken of the sport that is made with birdes of the pray called hauking, and now we will enter into some speech of taking of birdes, which sing melodiously with sweete and pleasant

songs,

songs, wherewith the maister of our countrie farme, may take his recreation and pleasure, by hearing them sing in his closes, parke, lowe woods, and high woods, or in his chamber window: or else shut vp in some cages or rooms made for the purpose to containe the subiect of such pleasure and delightsome melodie. And that wee may not omit any thing, before we set downe any maner or way of the particular taking of such birds, we will take a brief view of the nature, feeding, and diseases of the same. For it were but lost labour to take the birds, if to the ende that wee may haue their sweete and melodious songs a long time, we know not what meat is good for them, what diseases they are subiect vnto, and what meanes and remedies are necessarie for their distemperatures. In the meane time I minde not heere to bring in the fabulous histories touching the originall and breeding of the most part of them, which fantasticall Poëtes haue inuented. I meane to rest my selfe in this onely perswasion, namely that all birdes were miraculously created of God by his almightie power, that is to say, of his own meere will and word, whereby likewise he did create al other creatures in the beginning of the creation of the world.

The sixe and fourtieth Chapter.

Of the nightingale.

WE wil make our choise of the Nightingale in the first place, which according to the iudgement and common consent of euerie one, singeth the most sweetly and melodiously of all the rest: shee is a birde sufficiently knowne, especially in the countrie of *Italy*, and is called of the Latins *Luscinia* or *Philomela*: shee maketh her nest in the spring, at such time as the earth in the moneth of May, is all ouer couered, beset and hanged with flowers and pleasant greene, and that in groues and thicke bushes, vpon which the sunne in the morning doth caste his coole and temperate beames: from noone till sunset, shee haunteth the coole places, fountaines, brookes, thicke hedges, and well shadowed places. True it is that some of them doe make their nests vpon the ground, vnder hedges, or amongst the waste groundes: and othersome of them make it in a place somewhat raised, as vpon some greene and thicke grasse growne, clod of earth or butre. The number of their egs is vncertaine, for some lay fower, and some fiue; and those which nestle in sommer, lay (according to *Aristotle* his assertion) sometimes sixe or seuen. Now the Nightingale which you woulde keepe, must be bred in the spring: for how much the earlier birde shee is, by so much will shee become the more perfect, and you may haue better hope and assurance of her longer liuing, and of her being brought vp and kept with more ease, because that comming (as all are woont) to mue her feathers, if she bee

The nightingall his nest.

ouerrunne

the ſexe which the cockes doe put forth, but the hens doe not, for then is the time that birds do couple togither. Theſe therefore are the moſt certaine euident and infallible arguments, whereunto you may truſt and betake your ſelfe.

The two and fiftieth Chapter.

Of the King of birdes or the little King, otherwiſe called Robin-Redbreaſt.

THE little king or king of birdes is naturally verie ſmall, of a daintie tractable complexion, hee ſingeth moſt ſweetly, and is not much inferiour in this reſpect vnto the nightingale. Hee is oftentimes ſeene in winter vpon the tops or roofes of houſes, or vpon old ruines on that ſide that the ſunne ſhineth, and where as the winde may leaſt annoy him. He is to be fed in this ſort: you muſt keepe him warme in his neſt, giuing him for his meate of a ſheepes hart or of a calues hart minced, in all points as wee haue alreadie ſaid, ſpeaking of the nightingale. Hee muſt be fed with a little at once and oft, by reaſon of his digeſtion, being carefull that he take no cold, and eſpecially in the night. For which cauſe you ſhall put him in a cage, which hath ſome prettie prouiſion made in manner of a little chamber trimmed vp with red cloth, and made as it were a little hothouſe, whereinto he may withdraw himſelfe in the night ſeaſon and ſhunne the cold all the whole yeere. Now when he ſhall be vſed to be fed, you ſhall feede him with ſome hart well beaten and ſmall minced, and ſometimes you ſhal giue him of the paſte that is vſed to bee giuen to nightingales, which will doe him no ſmall good. And you ſhall giue him ſometimes flies to pecke for his greater ioy and ſpeedier taming, and herein you ſhall vſe great diligence. *The king of birdes.*

The three and fiftieth Chapter.

Of the Finch.

AMongſt the faireſt and moſt beautifull birdes, yea or rather the moſt beautifull of all is the Finch, being no leſſe delightſome to the eie, then pleaſant vnto the eare: and yet there is not that account made of her that ſhould, becauſe of the great number of them that is to be found. They neſtle thriſe a yeere, that is to ſay, in May, Iune, & Auguſt. Some are of opinion that thoſe which are bred in Auguſt are the beſt, and amongſt them thoſe which are of the third feather, or which haue mued thriſe. Others affect thoſe moſt which haue their neſts amongſt the thornes, and haue certaine orange coloured feathers, which I my ſelfe doe not miſlike: but I ſay further, (that whereas the blacke ones are commonly the perfecteſt and beſt *The Finch.*

birdes of all) that there is not any one better or more perfect then an other. It is true that those which breed amongst the thornes, are stouter and stronger birdes then the other and better made to sing. They are vnlike the other, in as much as their feathers are somewhat more graie & darke. The cockes haue a blacke throat, as likewise the shoulders and head blacke and long and flat. The hens haue their shoulders gray, their throat blacke, and their head round.

The fower and fiftieth Chapter.

How the Finch must be fed.

How to feede the finch.

WHen you haue taken the Finch with her nest, you shal feed them in manner as followeth: you shall first soften in the water of sweet almonds, and afterwarde chawe very well a little peece of bisket or of a pan cake, and you shall make of these two things a paste, and cram into the birde of the same, as shall be needfull. Afterward you shall worke the things aforesaid in a morter togither: & hauing tempered them with water, you shall giue them as much as a bird will hold in her bill, with a chickens feather, vpon paine that you make her meate new euery day least it should grow sowre & spoile the bird. When you haue fed the birde you shall take a little sticke like a tooth-picke, at the point whereof you shall tye a little cotton: you shall wet this tooth-picke in water, & with the same you shall wash the birds bill, that so there cleaue not thereto, or hang there about any of the saide paste, for causing of apostems or vlcers, such as wherewith shee might be kept from being able to open her bill, and so she would easily dye. Now when shee beginneth to eate alone, you shall giue vnto her in her little boxe a little bruised mustard seede, and you shall renue it dayly, least it should become ranke, which woulde make her die. The same diligence must bee obserued in bringing vp of greene Finches, Canarie-birds, Linets, Goldfinches or Silkens and Spinkes. You must be careful when they moute to aire them and besprinckle them with a little wine, setting them also a little in the sunne twise a wecke.

The fiue and fiftieth Chapter.

How to feede the spinke.

What meat the spinke must haue.

THe spinke is a very beautifull and melodious birde, but all spinkes haue not one and the same tunes: for some of them sing after one fashion, and some after an other: which needeth not to be further prooued, for there is great variety of them, and they are called after diuers sorts. Some bring them vp after the way, that is vsed in bringing vp of finche s. This bird hath this imperfectiō, namely,

ly, that she easily looseth her sight. Wherefore when you perceiue that she is in the way to grow blind, take of the iuice of beets, and mingle it with a little water in her water pot, and that for a day onely, that so she may drinke thereof. And furthermore make her a pearch of fig tree wood, whereupon, and against which she may rub her eie, which will doe her much good: you shall giue her likewise to eat of the seedes of melons the space of two or three daies, because they are cooling and wholesome. And if by this means the spinke do not mend and become better, giue her leaue to take her libertie in the fields, for she will neuer be ought.

The sixe and fiftieth Chapter.

To relieue the diseases of the finch and nightingale.

WHen the finch is in her mue, you shall comfort her be- *The finch mewting.*
sprinkling her lightly with wine, that so shee may mout the sooner, which will be to her further good. And if she happen to haue lice after this sprinkling with wine, set her in the sunne, and there let her stand vntill such time as she be drie. Some of them mout in Iune, some in Iuly, and other some in August, according to their complexion and heate. And this is the course which they follow which are put into the cage, hauing spent one yeere abroad before, for those which are taken in the nest doe mue within a moneth that they are put in, and this must be vnderstoode in generall of all birdes. And therefore to come to the particular. The nightingale is troubled with fatnesse, and therefore she must bee purged twise a weeke, giuing her two or three wormes of the pigeon house, as wee haue taught before for the space of fifteene daies. If she growe melancholike, you shall *The nightingale melancholicke.*
cut the bladder which is aboue her rumpe, and put into her drinking pot some sugar candie, little lumps or paste of sugar, of the bignes of a nut. And if you see that she complaine her-selfe of sickenesse, put into her water pot some sixe chyres of saffron, or thereabout, continuing therewithall to giue her the paste, and sometimes of a sheepes hart. And if peraduenture she still grow woorse, giue her the yelke of an hard egge and the white also. Besides, the nightingale hauing beene two or three yeeres in the cage, becommeth gouty: now when you shall perceiue it, annoint her feet with butter, or else with hens grease, which is a verie good remedie for to cure her. The nightingale is likewise subiect to haue apostems breaking out about her eies and neb, for which you shall likewise vse butter and hens grease. It is meete also to make prouision for the nightingale that is leane, when you see necessitie that way to require it, giuing her new figs to eate in their season, and at other times drie figs well chawed: and afterwarde you shall

bring her to her ordinarie diet, and so you shall continue with her to maintaine and keepe her. There hapneth also vnto the nightingale another disease called the streitnes or strangling of the breast, which commeth of hauing eaten some ranke or fat thing, and it is perceiued by the beating and paine before not accustomed, which she abideth in this place, and also by this, that then she is giuen oft to gape and open her bill. This disease commeth also of some sinew or threed of the sheepes hart, which was not minced small inough, and so thereby doth hang in her throat: wherefore you shall very handsomely open her bil, and take it from her with a pinne, you shall know it to be this disease, when you see in her throate certaine broken or loose flesh: giue her afterward a little sugar candie, which shall be a very good remedie for to cure her. In briefe, all such birdes as eate sheepes harts, or the harts of other beasts, are subiect to be troubled with the disease aboue spoken of.

The seuen and fiftieth Chapter.

To know the Canarie birde from others, and what diseases she is subiect vnto.

THe Canarie bird is brought from the Ilands called the Canaries, and is of much account amongst vs, because she both commeth out of a strange countrie, as also because she is a good singing bird. She is knowne from others by this, because she continueth and heaueth the passages of her throate in singing more then anie other doe. Besides she is of a lesse body, and of a longer taile. In so much as the lesser they be, the perfecter they be. On the contrarie, the great ones which sometimes turne their heades behinde them, after the manner of fooles, and for that cause are called fooles, are the woorst, and come from the Iles of *Palme verte*. Wherefore the nature of the Canarie bird is not to be fat, or to maintaine and keepe her flesh well. She is verie subiect vnto impostumes which happen vpon her head, and those of a yellow colour, and they must bee annointed with butter or hens grease about three times, then leauing off to doe anie more vnto them for the space of three daies, you shall then take them in hande againe, and open them gentlie, whereupon you shall see comming out of them thicke matter, like vnto an egs yelke. Which done, you shall annoint the said impostumes verie well with the foresaid grease, and this you shall doe as often as they shall returne. This birde is likewise troubled with melancholie sometimes, and then the end of her rumpe would be cut and wrung out very well, giuing her of these herbes, lettuses, beetes and such like. But and if for all these things you see that the Canarie birde doth not amende the better, you shall coole her with a little of the seede of melons, giuing it her to

eate,

eate, and you shall put into her water pot a little sugar candy, twise, or thereabout, and that so much as may endure and last one whole weeke. Which may bee done likewise when shee is in health twise a moneth.

When the Canarie bird mouteth, giue her of the seeds of melons, and sprinkle her with a little good wine, in such sort as hath beene said in speaking of other birds, and that twise or thrice a weeke, setting her afterward in the sunne, and by this meanes you shall make her moute more properly. This course you shall likewise practise if she haue lice, to kill the vermine that would waste and consume her, that so she may be preserued.

The Canary bird in moute.

The canary bird hauing lice.

The eight and fiftieth Chapter.

Of the linnet and of her diseases.

THe linnet is a good and melodious bird, euen that which is taken in her nest. Sometimes she will be melancholicke: she haunteth the mountaines amongst the mirtle bushes, boxe trees, iuniper trees, and bay trees: she maketh her nest of very small rootes, and other matter like vnto feathers. This bird bringeth foorth yong ones thrise a yeere. She is subiect vnto the disease called the pthisicke, which may be perceiued by the seeing of her melancholike, and her feathers standing in staring wise, and by her bellie, which then will shew it selfe somewhat more puffed vp then ordinarie, full of red veines, and her breast leane, and by seeing her spill and pecke mustard seede. This disease commeth to her by feeding vpon mustard seede, which is verie hot: wherefore it were better to giue her pannicke: or else continuing to giue her mustard seed, to vse withall this remedie: which is, when you see her troubled with this disease, to cut the end of her rumpe, and to giue her sugar candie, or some other fine sugar to drinke: and for her meate you shall giue her beets, lettuses, and other such like herbes to eate; as namely, sometimes some mercurie. If you haue vsed to feede her before with mustard seede, you must giue her pannicke to eate, to coole her withall, or else the seeds of melons well husked, and to continue the same meate the space of three daies. Her ordinarie meate shall be of the said hearbes. Besides this, you shall put into her cage a little earth, and that in such sort, as shall seeme good vnto you: howbeit, it would bee best to put therein some beaten mortar, or some clay, to the end that feeding vpon it she may bee healed.

The linnet.

The linnet is subiect vnto the disease called the pthisicke.

The manner of feeding the linnet.

The linnet is likewise subiect vnto the streitnes or conuulsion of the brest, wherefore being oppressed with this disease, you shall feede her with the seedes of melons, and in her water you shall steepe some sugar candy, or else small morsels of paste. You shall put therein furthermore

thermore a little peece of licoras, to the end the water may somewhat taste of it, and so you must continue it for the space of fiue daies, one day alwaies betwixt, that is to say, one day and not the other. Seeing to it that you giue her a beet leaf or some other, vpon the day that you shal giue her pure water to drinke. The same remedy will serue to help her to her voice againe if the bird were hoarse, for thereby she shall finde her selfe well. Notwithstanding that there are but few that escape of the phthisicke. You shall vse the like remedies for the benefit of other birds, which are found to be greeued with such diseases, as those are whereof we will now speake.

The nine and fiftieth Chapter.

Of diuers infirmities happning to little cage birds, together with their remedies.

AMongst other diseases of birds, they are subiect easily to loose their sight and become blinde, if it be not speedily looked to, & especially the spinks. Wherfore, for their better recouery before they be quite blind, you shall take beets and draw the iuice out of them, mingling it with a little sugar, and with this licour you shall make her drink for the space of two or three daies, to be taken euery second day, after the manner that we haue spoken of in the behalfe of the linnet. And you shall lay in her cage a sticke of the woode of the figtree, in such sort as that the bird may vse it for a pearch, and rub her eies against it, for the curing of them. Which remedie will then be expedient, when you perceiue their eies to begin to shed teares, and their feathers begin to stare and stand vp. When they shall be troubled with impostumes, you shall vse the same remedies which we haue spoken of in the chapter of the Canarie bird.

Apostemes about birdes.

But in as much as it often falleth out that birdes doe breake their legs, I haue thought it good to teach you the way to heale them. You shall giue them their meate in the first place, in the bottome of the cage: secondly you shall take away their rods and pearches, that so they may not thereby take occasion to be hopping to looke for their meate, and so thereby to labour and stirre their leg, because by stirring thereof they perish and are spoiled. And this course will likewise serue when any bird hath her thigh broken: and I woulde aduertise you not to binde or swaddle it after the manner of the worlde, for so you should cause some impostume to grow in the place where you did binde and tie it. You shall doe that which hath beene said very easily, if you lay her meate in the bottome and lowest part of the cage; all manner of pearching being cut off by the taking away of the rods and stickes which were in it for that purpose, and keeping them in some by-place for feare, that by the hearing of noise they should beate and shake

Birds hauing their thigh or leg broken.

ſhake themſelues, letting their legge or thigh which they ſhall haue broken remaine vntide and vnbounde: for nature will heale it, and make it to growe togither againe ſpeedily.

The ſixtith Chapter.

The manner how to ſerue ones turne of birdes, when he woulde take and catch them, and howe to make them ſing.

NOtwithſtanding that all birdes except the Spinke doe ſing in winter, as by name the finche, the linnet, the ſiskin and other ſuch like: there are ſome founde notwithſtanding which being come out of the mue, doe giue ouer their ſinging, becauſe of the ſaid mue. Wherefore from the beginning of May you ſhall purge them, which you woulde vſe for your purpoſe to catch other birds withall, in ſuch maner as followeth. You ſhall giue them in the firſt place of the iuice of beetes mingled with a little pure water, and the day following you ſhall giue them a leafe of the ſaid herbe. The thirde day following you ſhall keep them cloſe in the houſe, ſetting them vpon the ground, that ſo they may eate their meate vpon it, for the ſpace of tenne daies, withdrawing them by little and little day after day from the light into ſome obſcure and darke place. And when they haue thus paſſed ouer ten daies, you ſhall giue them ſome beetes againe, and ſhut them vp in ſome ſquare cheſt in a darke and by-place. At the euening you ſhall dreſſe them with a lamp, ſo dealing as that the ſaid birds may ſee the ſame light for the ſpace of two houres, during which time you may make cleane her water pot, changing their muſtard ſeede euery eight day, and giuing them of the leaues of beetes euery fourth day, and euery twentieth day of the iuice thereof, eſpecially vnto the ſpinke, being the moſt ſubiect of al others to becom blind. And that you may keepe them without lice, you muſt change their cage euerie twentie daies, as alſo for an other reaſon, which is becauſe of the filth & ſtench thereof, which might eaſily kill them. Thus you muſt ſtil be practiſing of theſe courſes, vnto the tenth of Auguſt, which terme being expired, you ſhall purge them a newe in like manner as before, ſuffering them by little and little more freely to ſee the light, vntill the twentieth of the ſame moneth, taking heede that they come not in the ſunne: Thus they will ſerue you verie well to take and catch birdes withall in September and October, and finally in all the reſt.

The

The one and sixtieth Chapter.

Of the misken.

The misken.

AMongst the little birdes of the cage, the misken is of a cheerefull nature, and singeth sweetly and delightsomely, shee is faire and exceeding pleasing vnto the sight: shee breedeth thrise a yeere; first about the ende of Aprill amongst the shrubs or hedges of iuie or laurell. Secondly about mid-May: and thirdly and lastly in the end of Iune: and this is their ordinarie and most common course. For sometimes they come sooner or later, more or lesse. Their nestes are made of the most fine roots of herbes, and oftentimes of the leaues of reeds, according as the place will affood them where they nest.

To feede the misken taken out of her nest, you shall giue her of a sheepes hart minced very small, taking away the fat and the sinewes, or else of a calues or heyfers hart, taking from it likewise the sinewes & fat, all the rest being well beaten and shred, because of digestion. You shall feede her in her nest oftentimes, giuing her euery time one morsell or two, and no more, least they should die, by being to much filled. And when you shall perceiue that the misken will eate alone, you shall hang at her cage a little of the saide hart minced, not ceasing notwithstanding to feed her by putting it in her mouth certaine times euerie day for more assurednes. After that she hath beene accustomed to eate alone, you may giue her some paste, feeding her therewithall onely, without giuing her any more hart when she shall be accustomed thereto. Furthermore if you haue any great desire that shee shoulde learne some proper song, take the paines for to teach her, for it is a birde that is very easie to be taught. The miskins, which are taken in birding, prooue better and more perfect then the other. They are woont to continue without singing the space often daies after they are taken. You shall feede them for the space of eight daies, with new or drie figs, and after you shall begin to giue them of the paste which is woont to be made of the nightingales, whereof we will speake hereafter: such as are fed with paste doe liue longer then those which are fed with nothing but figs.

The two and sixtieth Chapter.

Of the solitarie sparrow.

THe solitarie sparrow is by nature giuen to be melancholike, she loueth by-places, and thereupon commeth her name, because they are very solitarie, as namely, the olde decaied walles of churches, and other vninhabited places, as being far remooued from the companie of other birdes: shee is very iealous ouer her yong ones,

ſhe maketh her neſt in the holes and clefts of old buildings, and breedeth thriſe a yeere : firſt in Aprill : ſecondlie in Maie : and thirdly in Iune.

If you will bring vp and take any pleaſure by the ſolitarie ſparrow, which you haue taken yoong in their neſts, you muſt chuſe the greateſt and biggeſt, namely ſuch as are well couered with feathers, for elſe you ſhall neuer bring them to any proofe.

If peraduenture when they are growen thus great, they will not open their bils, you ſhall open them, giuing them as much as a birde will hold in her bill three or fower times. But and if you perceiue that they will eate of themſelues, you may put in their trough or meate-boxe ſome of the foreſaide hart, not giuing ouer notwithſtanding to put it into their mouthes, vntill ſuch time as they eate well alone. But for ſuch as open their bils, you ſhall feed them with the ſaid hart; after that you haue taken off the skin round about and the fat alſo, and that once euery howre or more if you heare them crie and ſee them gape. Put in their cage a little ſtraw or hay, keeping them as neate and cleane as poſſibly you can; for if you doe not they will become lame, or elſe die in a ſmall time. Wherefore you ſhall doe as hath beene ſaide, vntill they haue mouted, and afterward if you will keepe them in ſand it will be verie good : howbeit I thinke it better to keepe them in haie all the winter following. And when as they ſhall eate of themſelues, their meate ſhall be ſheepes hart ſmall minced, and ſometimes of the paſte which is woont to be giuen to nightingales. And ſometimes for an extraordinarie diſh, you may giue them hard egges, as alſo rayſins.

Meat for the ſolitarie ſparrow.

The three and ſixtieth Chapter.

Of the Throſtle.

THe Throſtle is a bird known to euery one, and ſhe is as good to be eaten, as to ſing : ſhe maketh her neſt in hils full of ſnow and ice, vpon high trees, it is made of the moſſe of the wood mingled with earth, and faſhioned of a round forme with ſingular cunning, in the midſt thereof they leaue a hole, to the end that it may not fill with water through long and continuall raine, which might prooue to the drowning of her yong ones. They breed thriſe a yeere as other birds do, that is in Aprill, May and Iune.

What manner of bird the throſtle is.

The Throſtle taken in the neſt muſt bee kept and fedde in like manner as the ſolitarie ſparrow, as well whiles they are yoong and ſmall, as when they become olde and great ones. Furthermore, you muſt know that the Throſtle is a great deale more delicate and fine then the ſolitarie ſparrow and hath tenderer bones. So that to preſerue and keepe her aliue, ſhee muſt bee kept verie neate and cleane.

What meat is good for the throſtle.

See

See that the throstle which you would bring vp and keepe be a great one and well feathered: for if you choose her great, and that she begin to eate alone and to mout, you shall be the more able to bring her vp, and she will proone the better.

Two sorts of throstles.

You must note also that there are two sorts of throstles: those which are best to bring vp for singers, are rather the little ones then the other; and those which are of a browne and darke coloured feather called in Italian *Tordi sassoli*. On the contrarie, those which are nothing worth to sing, are much greater, and their feathers of a whiter colour, called by the Italians, *Tordelli*, which in my iudgement are better for the belly then the eare.

The sixty and fourth Chapter.

Of the Calander, Corydale and Larke.

The Calander. The corydale. The larke.

WE know the nature of the Calander by the effects, for she is hard to tame if she be not taken in the nest: she will be so vexed sometimes as is maruellous, and a thing almost incredible, for being caried from one place to another: and in this vexation she will continue a whole moneth without singing: yea there haue some beene seene which did neuer sing againe after, except they were brought backe to their accustomed place.

The larke.

The Larke, notwithstanding that she is disdainfull doth not forsake her singing in such cases aboue two or three daies, as doth in like maner the Coridale. These birds make their nests vpon the ground and in medowes, and sometimes amongst the corne. Their nests are made of the drie roots of herbs, and they breed thrise a yeere: first in the beginning of May, then in the beginning of Iune, and lastly about mid Iuly. Notwithstanding they differ herein sometimes according to the season and time, as do all others.

These three sorts of birdes as they are of one and the like nature, so they are fed and eate after one manner. For their ordinarie meate and feeding shall be no other then that which we haue said to be good for the other birdes: namely, the hart of a sheepe beaten and minced very small. If they eat not alone, you shall feed them very diligentlie in their nests, according as you shall see it needefull. Looke to it that they continue not too long in their nests for feare they shoulde become lame. But after certaine daies put them in their cage strawed with small sand, and there leaue them daie and night. Being accustomed to eate alone, you shall giue them hart mingled with the graine called of the Latines *Far*, or else with paste which is made for nightingales, and therewith you shall feede them till they become great ones and stand vpon their feete. Afterward you shall scatter some of the aforesaide corne called *Far*, amongst the sand of the cage, to the ende

that

that the birdes may learne to know of themselues the saide corne amongst the sand, and to pecke it now and then, continning notwithstanding to feede them, and to put into their mouthes of sheeps hart according to your former custome. But when these birdes begin to moute you may giue them hempseed, spelt, and the siftings of corne. You shall also put into their cages a peece of drie morter or else of the pumice stone, or of clay, whereupon the birdes may sharpen and rub their bils, which is verie apt to grow blunt with pecking, and to the end that they may eat some of it also sometimes: for it is a thing that doth them much good, and serueth for to purge them.

The fiue and sixtieth Chapter.

To make the paste which the Nightingales eate, being likewise good for the solitaire Sparrow, Miskins, Blacke birds, Throstles, and many other birdes.

TO make paste for the said birdes, whereof we haue made mention before: take the meale of white Cich-pease, & boilt it diligently with a boulter, as is vsed to be done with wheat meale, and in such quantitie as you shall see to bee needfull. For example: Let the quantitie of meale bee two poundes, with one pound of sweete almonds chosen and husked, which afterward you shall take and stampe verie well, in such sorte as is vsed when paste for marche paines is to bee made. Herewithall you must haue three ounces of fresh butter, which butter you shall put in a copper vessell tinned, and mixe therewithall the said flower and almonds together. After that you haue done this, you shal set the said vessell vpon charcole fire that so it may not smell of smoake, stirring it diligentlie whiles it is vpon the fire with a wooden spoone, that so it may boyle by little and little putting thereto the yelkes of two egs and a little saffron: when you perceiue the butter to begin to melt, you shall furthermore drop into it of liquid honie so much as shall serue for the incorporating of the paste, and bringing of it into cornes, still continuing to stirre it with a spoone for feare the fire shoulde make it burne to. When you haue thus done, you shall take a Colander made with such holes as will let passe so much at once as the birdes for which you make it will eate. And when the paste is thus strained through the Colander: and the cornes made in such quantitie and qualitie as is requisite for the necessitie of the birdes, you shall take the paste which could not passe through the saide holes, and set it vpon the fire to boile againe verie well: and againe assay to force it through the said colander, so far foorth as that the whole may come to be of a iust consistence. And for the keeping of it, you must powre honie aboue, handling and stirring

of

of it cunningly, and so you shall bee stored of prouision for sixe monethes.

The sixe and sixtieth Chapter.

The way to know many and sundrie maladies which doe happen vnto birdes.

THe diseases of birdes are diuers, & this diuersitie causeth diuers effects & diuers signes, which lying hidden the disease continueth vnknown, and so there is no administring of any thing, in as much as it is not known whence it commeth that she is in that case, nor what disease it is, nor what medicine or remedy is good or conuenient for the curing thereof. Wherefore it is necessarily required that there should be good regard giuen vnto the outward signes by them to know the mischiefe that lurketh within, and that no leisure in the behalfe of birdes, then generally of all other creatures. Wherefore I haue indeuoured my selfe briefly to collect and gather into this Chapter whatsoeuer hath been deliuered scatteringly and diffusedly elsewhere, in the touching of the infirmities and diseases of birdes and of the knowledge thereof, for the benefit & instructions of such as would know the diseases whereunto such birdes as they delight in and loue to keepe are subiect.

Apostemes. Birdes therefore are subiect amongst other diseases vnto impostumes which doe happen vnto them and appeere in the head of a yellow colour, as great as a hempe seed, yea, sometimes as bigge as a pease, a disease commonly haunting all birdes, especially those which are of a hot complexion.

The phthisicke or consumption. Another kinde of disease with which birdes are troubled is called the subtile disease *phthisis*: for the birde that is troubled with this disease, swelleth in her body, as hauing it euerie where beset with veines full of bloud, the brest notwithstanding being thin and leane, and furthermore, the birde so diseased, doth nothing but take, cast awaie, or ouerturne her meate and hempe-seed.

The goute. The goute is another sort of disease common to birdes, and vexing them sore: for when as they are diseased thereof, they can neither stir nor stand, because of the paine they do indure: This disease is known by the roughnes of their legs and feete.

Difficultie of breathing. The difficultie of breathing, or harde drawing of their breath which troubleth them: and it is knowne by hoarsenes, so as that they cannot vtter their tunes, or if they do, yet very harshly and imperfectly, or else by their not saying any thing at all. You shall lay your hand vpon her brest, and by that also you shall perceiue it, for you shal feele an extraordinarie beating, as shewing it selfe to come from some oppression and great difficultie: by all which you may gather for certaine

taine that she is infected with this disease. Oftentimes it likewise commeth to passe that they crie and cast foorth lamentable noises, complaining themselues, which declareth euidently that they haue the disease called Asthma, or shortnes of breath. Birds also oftentimes fall blinde, which if it be not quickly helped, they will neuer bee cured: and this disease is perceiued by the trickling of teares from their eies, and by certaine feathers about their eies which doe curle and crooke by turning in againe. *Cries and lamentable noises.* *Blindnesse.*

The falling sicknes is likewise incident vnto birds, whereof they are scarce euer cured, for there is no other remedie for it, but to keepe the birde which you bring vp, from the sunne in sommer: if she escape the first time, you must cut the nailes of her feete, and besprinkle her well with good wine: purge her oft. *The falling sickenesse.*

Some say that birdes are subiect to the disease called the pip, which is false: for the disease which they call the pip is not the pip in effect, but another disease which groweth in the bils of birds, for which it is good to vse this remedie: Take the seede of melons, and steeping them in pure water, make them to drinke thereof three or fower daies, and perceiuing the bird to growe better, you shall giue her a little fine sugar, tempered likewise with sugred water. *The Pip.*

It is hard to know when the birde hath the disease of the rumpe, and for my part I can not tell how to giue you a better signe thereof then her growing melancholike, as by surceasing and abstaining to sing. The remedie is to cut away halfe of the sharpe point which she hath there, for you shall not deuise to doe her so great good any other waies. This is a griefe which all birds are troubled withall, euen those that are kept in the cage. *The disease of the rump.*

Besides the diseases before named, birdes haue sometimes the fluxe of the bellie, which is knowne by their making of their dung more thinne and liquid then ordinarilie they were woont, by the beating of their taile, and in that they keepe it close and neere together. The remedie is to cut the feathers of their taile, and those also which are about the fundament, annointing it with a little oile. And in steede of hempe seede you shall giue her the seedes of melons for the space of two daies. But and if these be birdes which vse not to eate any hempe seede, but hart, or paste, deterre not to take it from her, and in place thereof to giue her hard rosted egs, in such sort as we haue said before. *The fluxe of the bellie.*

The seuen and sixtieth Chapter.

Of the diseases that happen particularly to euerie particular sort of birdes.

The diseases proper to the nightingale.

OLde Nightingales of the cage are subiect to gouts and conuulsions in the breast, vnto which diseases the solitarie sparrow is also subiect, besides the falling sickneſſe or giddineſſe of the heade.

The diseases proper to the linnet.

The linnet is troubled with the subtile or close and secret disease more then any other birde, as also with hot apostemes, conuulsions, and gouts.

The diseases proper to the finch.

The finch is woont to haue impostumes and the subtile disease.

The proper diseases of the siskin.

The siskin on the contrarie, is not so subiect vnto diseases, both because she is of a better complexion, as also of more strength. And this is the cause likewise why she seldome times falleth blinde.

The diseases peoper to the spinke.

The spinke is more subiect to blindneſſe then all the rest, and when she is once ouerrunne of this disease, shee is no more woorth anie thing, for she will euer and anon fall into it againe of set purpose.

The diseases proper to the

Goldfinch.

Two onely diseases doe voluntarily molest the goldfinch, that is the subtile disease caused through olde age, and impostumes proceeding of the eating of hempe seede.

Canarie bird.

The same two diseases wee finde to befall the Canarie birde of Spaine, howbeit the subtile disease is seldome times founde to trouble her: she is also subiect to the conuulsion and oppression of the breast, because of her excessiue naturall heate. The siskin is more subiect to the gout then any birde that is. The solitarie sparrow is haunted with impostumes and melancholie, which causeth her often to

Coridale.

die. The Corydale falleth blinde sometimes, and sometimes she is troubled with the subtile disease. As it also hapneth vnto the other

Larke. Calander.

kind of larke which hath no creſt vpon her head. The calander likewise is subiect vnto the subtile disease, apostemes, gouts, & that which is woorse, namely to become quickly blinde. The birde called in Latine *Thraupis*, is likewise verie subiect vnto impostumes, and oftentimes dieth of fat. The strongest and stoutest bird that can be, is the

Blacke-bird.

blacke birde, wherein I cannot finde any disease to kill her except old age, which is the common maladie deuouring all mortall things. Fat and impostumes doe sometimes hurt the throstle, as also the disease of the rumpe, which is likewise common to all birdes that are kept in the cage.

Throstle.

The eight and sixtieth Chapter.

Birdes are to be purged, at what time and how oft in the yeere.

THe nightingale and other birdes which eate hart and paste, must be purged at the least once euerie moneth with two or three wormes out of the pigeon house euery time: two daies after put into her

her water pot the quantitie of a nut of fine sugar, and when her voice faileth her, you must put into the saide water some licoras, as namelie so much as may giue some taste to the water, and this will cleere her voice very excellently. The foresaide purgation is verie needfull when they are about to moute. The cage must neuer be without earth or sande: she must be sprinkled ouer with wine at the least twise a weeke to further her in her mouting, and for the better preseruing of her life, setting her afterward in the sunne till she be almost drie: the like course must be taken when she is troubled with lice: and if you giue her any drie figs they will much reioyce her.

The nine and sixtieth Chapter.

To purge birdes that feede vpon hempseed.

THE birdes that eate hemp-seed, shall take for to purge them the seeds of melons husked; & herbes (as you shall thinke good) namely Succorie, Beetes, Lettuses, Scariole, and Mercurie, which is principally good for the linnet, but giue them what herbes you please: for they are verie good to giue to birdes to purge them: yea and though they haue no need to be purged, yet you must not cease continually to bee giuing of them some: giuing them furthermore amongst, either earth or drie morter in their cage, to the ende they may eare of it, or dust themselues in it at their pleasure and conuenient time, which is verie wholesome for them: and likewise you must giue them some sugar, as you haue beene taught before. You shall perceiue when the birde would moute by the feathers in her cage, and then you shall besprinkle her lightly with wine, as we haue alreadie said before. Some birdes moute in the ende of Iuly, and others in the ende of August. Those which are taken in the nest begin to moute as soone as they bee bred, and their mouting continueth a moneth. You shall beesprinkle them with wine at the least twise a weeke to cause them to moute the sooner.

The seuentieth Chapter.

To know how long the birdes liue.

IF any man desire to know how long these birds liue, let him know that amongst nightingales some liue three yeeres, some fiue, and others vnto eight and sing vntill that time, but from that time forward they are not anie longer in perfection, but decline by little and little. It hath beene seene that nightingales haue liued till they haue beene fifteene yeeres old, and continued singing euerie daie lesse or more, so that it may seeme that they liue according to the good ordering which they haue, or else according to their good complexion.

The life of the nightingale.

The life of the Miskens. The Miskins being subiect to the goute, doe liue but a short time, as three or foure yeeres at the most. *The life of the solitarie sparrowe.* The solitarie sparrowes liue in good state and account for the space of fiue yeeres: many of them dye of the subtile disease, some of impostumes, others of goutes, and some yoong ones of the falling sickenesse. *The life of finches.* Finches liue tenne, yea fifteene, and twentie yeeres, more or lesse according to their complexion, and they are alwaies in good plight, singing to the last day of their life. *The life of the linnet.* The linnet is short liued, because shee is subiect vnto the subtile disease; some liue two yeeres, some three, and some vnto fiue, according to their manner of ordering and gouerning. *The life of the siskin.* The Siskins liue, some fiue; others eight yeeres: by reason of their good complexion, and because they are not so subiect vnto diseases as other birdes. *The life of the spinke.* The Spinke liueth but a short time, because they are subiect to blindnesse: some liue one yeere, some two, others till fower: many of them dye of the falling sickenesse, because they haue been set foorth into the sunne in the sommer time, whereby the heat hath searched and penetrated into their braine. *The life of the calender, coridale and larke.* The Calanders, Corydales, and Larkes, liue alike long, the one sort and the other, as three or fiue yeeres. Some Calander doth liue longer then the Corydale, but she groweth melancholy, beeing remooued out of one place into another. *The life of the canarie-bird.* The Canarie birde liueth long, as fiue, ten, and fifteen yeeres: yea there haue some beene seene to liue twentie yeeres, continuing alwaies good. *The life of the Turaupis.* The *Thraupis* is of the continuance of sixe yeeres or thereabout, according as she is kept better or woorse: It is a birde that is not much regarded, for her singing is but yrkesome and tedious: some take pleasure in it, and some doe not.

The one and seuentieth Chapter.

The manner of taking small birdes, as well those which sing as those which are for to eate: as also all other sorts of small birdes.

To take birds with a chirpor call. TO take birds with the voice of some leafe, knife, or such other like thing, a man must stand in a bush shadowing himselfe with the leaues thereof, and with a whistle, make a noise or cry counterfayting some bird that hath beene taken before, or is then taken. Some take a sparrow being kept somewhat neere, and held in a snare and make her crie, pinching together her winges or legs: and then the birds will flocke about her to aide her, thinking that the owle hath caught her: and hauing set lime twigs or lime bushes vpon the branches of the trees, the birds that shall come to succour her, lighting will be limed.

To take birdes as they are feeding or going. To take spinkes as they are going, that is to saie in the place where manie spinkes are wont to passe, you must enuiron their trees (after they

they haue beene cut and planted in a plaine ground, one distant from an other some small distance, as three foote or there about) with leaues below, as if it were a lodge, and amongst them lay a coarde made fast vnto a bough, and caried vp on the other side with some prop, this shalbe held by a man placed a good way off, and one the said bough shalbe hanged and made fast two or three spinkes: then you must set the saide trees verie choiselie and thin with lyme twigs, and some distance off from thence two or three cages, wherein there shalbe some spinkes for to call to such flocks as shall come flying that waie, which perceiuing those in the cages, as also those which are hanged vpon the stick, will lime themselues on the trees.

To take birds with the tonnel.

To take partridges with the tonnell or tombrell, there must a man be placed behinde a cow, or a horse of wood or of osier painted in such sort as that it may resemble the fashion of a cow or a horse, and in the meane time he shall ouercast the nets vpon the partridges. This kind of taking of partridges is now a daies forbidden.

To take birds with fire.

To take partridges and woodcocks on the night with fire, you must light a match of old drie woollen clouts, dipt in melted tallow, wrapping them vp afterward together in forme of a torch, as thick as ones arme, and of the length of a foote; then you must astonish and amaze the partridges in such sort, as that they may cast themselues into the nets, wherewith they shalbe beset and compassed.

To take birds with the hand.

To take birds with your hand you must scatter in some plaine and smooth piece of ground corn or millet, steept in the lees of good wine and the iuice of hemlocke and afterward drie them; wherof when the birds shal haue eaten, they wil not be able to flie afterward, so that one may take them with his hand.

To take birds with the long bow.

To kill birds with the long-bow, or stone-bow vpon houses, trees, or buts, it is requisite that he that shooteth should haue double shafts forked before, when he would kill geese or other great birds, and those verie sharpe euerie where, to the end they may cut off the wing or the necke, where they shall touch them, for to strike them with the common shaft, would not so hurt the bird as that she might be constrained to abide in the place: for she would flie away notwithstanding that she were hurt or shot through, although she would die of it in an other place.

The ende of the seuenth and last Booke of the Countrey house.

FINIS.

A table of the matters contained in *the ſeuen Bookes of the Countrie houſe.*

A

Abel borne the fourth of the moone, a good day,44.

Abrecocke tree, 475.

Abrecocke tree and Abrecocks howe planted,427. 428.

Abrecocke trees grafted are very tender in the time of froſt,475.

Acornes to grow okes vpon,how they muſt be ſowen and husbanded,816.

An *Acre* of ground how much it containeth, 652.

Adam created the firſt day of the moone,43.

Adders toong, 270.

Agnus Caſtus is planted,and where,367.

Agrimonie,267.

A good *Aire*, a neceſſarie thing to a Farme, 5.

Alberges,or ſmall peaches,475.

Alembecks of glaſſe how they muſt be ordred, 573.Alembicks of the Venetians,571.how to chooſe them of glaſſe, 541. Alembicks for diſtillation,565.566.

Alkermes,and the confection thereof,627.

Alkakengi and the vertues and natures thereof, 362.

Alleyes, 301.

Aller trees,and Aller plots,642.how planted, 823.

Almond trees where and when to be planted, 472.bitter Almonds made ſweete,473. Almonds without ſhell and naturally written vpon,ibid.

Amelcorne, 686.

Angelica and his vertues, 258. the compound water thereof, 592.

The *Angeuins* louers of their profit,31.

Anion a good ſoile,16.

Aniſe,317.

Ants ſpoyling trees,521.523. and vines,752,to driue away Ants,399.

Apple-trees in what ground they grow beſt, & how grafted,459.Appletrees the moſt pretious and moſt in requeſt of all other trees, 484.how to keepe Apples, 525. golden Apples,323. how to haue red apples, 465. 466. Apples with ſhort ſtartes, 486. Apples of loue, 322. maruellous Apples brought by Monſieur Du Bellay Bb.of Mans, 361. Apples of a yellow colour,465. Apples of two taſtes, 65.wilde Apples diſtilled,583.

Aqua vitæ often diſtilled,584. and whereof it muſt be made, 585. it hath infinite vertues, ibid.

Aquitaine a countrie fruitfull in all manner of good things,16.

Arach the herbe, and the obſeruations thereof,225.226.

Arbors for gardens, & wood fit for them,353. Arbors of the kitchen garden,204.

The *Arders* of arable ground,667.

An *Arpent* of ground how much it containeth,652.

Arſmart why ſo called & the properties thereof,255.

Artichokes, 220. their vertues and manner of dreſſing, and that mowles and myce are enemies vnto them,221.

Aſarum Bacchar, and the vertues thereof, 258. good for a quartane ague,55.

Aſhes make a leane ground,8. aſhes cluttering together like balles, a ſigne of raine,33.

Aſhtree diſtilled,and the oile thereof,622.

Aſperagus may be growne of ſheepes hornes, 236.

Aſſes to plow withall, 675. Aſſes foreſhewing raine,33. 196. 197. the nature,burthen and goodnes of an Aſſe,ibid.

Aſtrologie inuented by ſhepherds,154.

Auens,236.

Autumne, and the conſtitution thereof.

The people of *Auuergne* are induſtrious and painfull,but coueting other mens gaine,31.

B

Badgers or Brocks are of two ſorts, their earthes,864.

Baie-tree where it muſt be ſowen,426.in what place it delighteth, 509. the faculties thereof,ibid. Baie-tree keepeth the houſe from lightning,510.

The

The *Bakehouſe* belonging to the Farme, 703.
That a *Bailiffe* of husbandrie cannot carrie ſuch an affection and vigilant eie, as the Farmer, 21.
Balme, 321. it increaſeth milke in kine, 636. Balme diſtilled, 581.
Balmes artificiallie made, and the deſcription thereof, and their kindes, 560. Balmes of S. Johns woort, 267, excellent Balmes of the herbe Nicotiana, 291.
Barbell, the fiſh, 645.
The *Barbes* in calues, 88.
Barlie when and in what grounds it muſt bee ſowen, 689. to prepare mundified Barlie, 690. Barlie muſt be ſowen in duſt, 776.
Barnes where and how they muſt bee made & ſeated, 24.
Baſill ſowen putteth forth at the end of three daies, 210. Baſill and Amber are at perpetuall hatred, 308. Baſill cauſeth ache and ſcorpions in the head, ibid. Baſill diſtilled, 582.
Baſſets or earth dogs, and how they muſt bee ordered & ſaued, 867. Baſſets of two ſortes, 864. and how to traine them vp & nurture them, ibid
Baſtard Dittanie, otherwiſe Fraxinella, breaketh the ſtone, 270.
Maries *Bath*, 567. the patterne thereof, 169. Maries Bath multiplied, 569, 570.
To *Battle* ground, and with what manner of dung, 669.
Againſt *Bats*, 401.
Beanes, what ſoile they craue, 694. and why there are many fooles whiles they are in flower, 695. Beanes amend the grounde where they are ſowen, 14. to cauſe Beanes to bee quickely ſodden, 703. flowers of Beanes diſtilled for to keepe, 598.
Goates *Beard*, 304.
Beares breech, 264.
Beaſtes when to be bought & kild. 41. of a double kinde of liſe, 644. Beaſts or their partes diſtilled, 605. to tame wilde Beaſtes, 833. ſignes foretelling death of Beaſts. 40.
Beauce ſcarce of water, 7. it beareth rie contrary to his nature, 13. the people of Beauce are laborious, 31.
Beere of diuers ſorts according to the diuerſities of countries, and the maner of making of them, and their temperature, 725, 727. it fatteth hens and capons, 728.
Bees, the profit of them, and how they muſt be ordered, 401, 402. what manner of ones they muſt be, 405. how they muſt be handled, 408. their conditions, 407. their chaſtitie, ſobrietie, and neatnes, 408. their kings and warres amongſt themſelues, 409, 410. their kings muſt bee killed which are the cauſe of their contention, and what bee their marks, 410. Bees that are cruell, 414. ſwarmes of Bees, and their fights, ibi. what diſeaſes Bees are ſubiect vnto, and their remedies. 413. they are ingendred of a putrified carcaſe, 405. their not going far from their hiues a ſigne of raine, 33.
Beeues for the plough, 674. fierce and cruell Beeues how tamed, 130. of their diſeaſes, 131. 132. three Beues wil not plow ſo much ground as one horſe, 126. great Beeues of Languedoc or Prouence, 145. to cauſe Beeues to haue a good ſtomacke, 549. to fat Beeues to ſell, 146. howe they foreſhewe raine, 33. to cure them being bewitcht, 242 the ſtable for Beeues, and howe it muſt bee built, 126.
Beetes, 224. & the ſpeciall obſeruations about the ſame, 225.
Beechtree, 829. 831.
Bels ringing clearer and lowder then ordinarie a ſigne of raine, 33.
Beniamin borne the 23. day of the moone, 46.
Betonie, 262. Betonie diſtilled, 581. water Betonie, 275. Paules Betonie, 266. called the Leapers herbe, and why, ibid.
Taking of *Birds* of all ſorts, 900. Birdhunting was not accounted of of olde, 869. and all the ſorts thereof, ibid.
Birds of the cage with their diſeaſes and remedies, 890. the manner of taking of them, and how to make them ſing, 891. and to keepe them from hauing lice, ibid. the taking of ſinging birds, 879.
Canarie Birds how they may be known from others, and their diſeaſes. 888. 889.
Birds of the pray & falconry and their foode, 871. 872. their diſeaſes and remedies, 873. rauenous Birds, 875.
To purge Birds that eate muſtard ſeede, 899. the diſeaſes incident to euery kind of Bird, 898. to know how lõg euery bird liueth in his kinde. 899. Birds their bathing a ſigne of raine, 33. what Birds are good to make haukes, 871. and that there are ten kindes of them, ibid,
Bird cages how made and placed, 25.

Birthwort of two ſortes, and where planted, 277.
Biſket, 719.
Biſtort, 265.
Bitter cherrie-tree, 477.
Blacke-birdes are notable birdes, not ſubiect to any diſeaſes, 898. Blacke birdes, and their foode, 895.
Blanch, what kinde of corne, 285.
Blaſphemie maketh a man contemptible, 30.
Mans *Blood* and Goates *Blood* diſtilled, 587. drakes blood and the vertues thereof, 588. goats blood againſt the ſtone, 167.
Blood-ſuckers ſwallowed by an Oxe, 134. or by a ſheepe, 162.
Borage and his vertues, 227.
Wilde *Bore* and ſowe howe they differ, 853. wilde Bores the murtherers of dogges, 852, 855. the hunting of them is dangerous, 855. they vſe no turnes, ibid. howe to kill them, ibid. and what good commeth of the killing of them, ibid. the beſt time to hunt them, and the ſignes of a good one, 852. the difference betwixt them and tame hogs, 853. his wounds are dangerous, 852. after fower yeeres they doe nothing but grow leaner, 834.
Boxtree, the death of bees. 357.
Bran of meale, 707. Bran diſtilled, 600.
Bread of Bran, 719. Bread the making thereof, 704. the differences of corne whereof it is made, 705. the differences of bread, 717. Bread of diuers ſortes according to the diuerſitie of corne and countries, 711. repletion of bread, the wooꝛſt kinde of repletion, 716. Bread called [*Pain mollet*] or [*Pain de bouche*] 715. ſpiced bread, ibid. and 719. old Bread is ill for the bodie, 720. the diuers vſes of Bread, ibid. toſted Bread after meat, ibid. waſhed Bread good for the health, 721. Biſket, 719. 715. Bread diſtilled, 599.
Brewhouſe for beere, 724.
Bridanneaux, what kinde of paſtemeate they be, 723.
Broome, 358. Butchers broome, 365.
Brockes of two ſortes, 863. their earthes, ibid. they are more hard to take then foxes, and what their nature is, 867. wherefore their fleſh is good, 863.
Brye, ſituate betwixt the riuers of Seine and Marne, and therefore plentiful in fruit and corne, 13. The people of Brye are ſubtile, fierce, and raſh, 31.
Great *Bubbles* in the water are a ſigne of rain, 34.
Buffles or wilde Beeues, 145. to plowe with them, 675.
He that hath *Bugle* and Sanicle, careth not for the ſurgeon of a bugle, 262.
Bugloſſe, 227.
Building muſt be anſwerable to the reuenew, 26. Building as it is nowe vſed, is differing from that of old, 1. where and how to ſeat your Buildings, 8. the Building and incloſing of a farme-houſe, 18. to builde on the top of high ground, 14.
Bultinghouſe where it muſt be, 22.
Bulles, and the markes of a good Bull, 87. one bull to threeſcore kine. 146. Buls tyed to a figtree become gentle, 371.
Burgundians are free and willing, but headſtrong, 31.
Burnet and his vertues, 222. diſtilled, 594.
Butter, and how it muſt bee made, 89. 90. and where it muſt be made, 22.
Butterflies eating bees, 414.
Moe and more fooliſh *Buyers* then ſellars, 4.
Buzzards and ſparrow haukes doe differ, the manner how to take and feede them, and to cure their diſeaſes, 874.

C

Cabages of all ſorts, howe they muſt bee husbanded, 213. when to be ſowen, 208. 209. old Cabage ſeede bringeth foorth radiſhes, 214. certaine obſeruations about Cabages, 215. good for all diſeaſes, 216. enimies to vines and wine, 215, they reſiſt drunkennes, ibidem. rotten they hurt their next hearbs, ibid.
Great *Cages* make the birdes nothing the better, 18.
Cain borne the third day of the moone, an ill day, 44.
Cakes, 723.
Calues, and how to geld them, 88.
Calamint, 310.
The *Calander* her nature and feeding, 894.
Camomile, 321.
The people of *Campaigne* willing, but ſtanding in their opinion.
A *Candle* of ſheepes ſewet keepeth mice from eating cloths in a cheſt, 163.
Canker in trees, 125.

Canterburie bels, 303.
Caper trees and Capers, 366. Capers distilled, 601.
In what thinges *Carters* must bee cunning and expert, 171.
Carawaie, 317.
Carets, 206. 244.
Carpes, how to fish for them, 645.
Carpenters herbe, 636.
Carob tree, 367.
Carpinus a kinde of oake tree, 831.
Caterpillers of the garden die by the tearmes of women, 399. to clense the trees from their nests, 519. to helpe the vines from being spoiled of them, 752.
Catholicon distilled, 595.
Cato a great husbandman, 5.
Cats licking the soles of their feete, and reaching ouer their eare therewith, a signe of raine, 34.
Caues and cellars, 23.
Cedar trees, 358.
Celondine, 257. good for the eies, 394. a compound water of Celondine, 592.
Cements to ouerdraw cesternes withall, & the composition and making thereof, 7.
Centuarie, the sorts and vertues, 277.
Ceruise tree male and female, in what soile it delighteth, the natures of the fruit, 506. the making of drinke of ceruises, 540.
Cesternes requisite in gardens that are drie and destitute of water, 7. in what place they are to bee situated and fitted, ibid. eeles must bee fed and kept in them, and wherefore ibid.
Chalke maketh a leane ground, 7. 8.
The Farmers *Chamber*, 22. The men seruants their chamber, ibid.
Chamlet made of goates haire, 163.
Chanaan borne the 12. of the moone, a dangerous day, 45.
The people of *Charters* are painfull, peaceable, handsome, and giuen to lay vp, 31.
Cheese of all sorts, 90. 91. and the way to make it, 91. Cheese for the linnet, ibid. in what place Cheese must be laid vp to keepe, 22.
Sweete *Cherries*, 479. Cherries without stones, 460. spiced Cherries, 461. Cherries carelie ripe, 463. Cherries at all times, 465. how to keepe them good and sound, 524. Cherries preserued, 543. the space to be allowed betwixt Cherrie trees, 512.
Cheruile, 236.
The *Chesnut* tree the most esteemed amongst trees, 810. and in what season it must bee planted, 49. what grounde it loueth best, and the nature thereof, 501. of the fruite, 502. to make them growe of seede, 818. Chesnuts planted, 427. how to keepe them 523. 524.
Chibols and Cyues, 206, 229. 231.
Chickens of diuers colours, 103.
Children borne the first day of the new moon liue long, 43.
Cichlings, a kinde of peason, 696.
Cidre, inuented by the Normans, 521, & how it must bee made, ibid, &c. the vertues of cidre, 533. tastles and mungrell ciders, 535.
Cinamome distilled, 619.
Cinquefoile, 265.
Citron trees, 376. the manner to plant them, 382. bearing red fruite, 463. how to keepe Citrons, 524. 526.
Citruls, in what quarter of the moone to bee gathered, 43.
Cypres tree male and female, 353.
The *Clapper* or warren, and storing thereof, 804. 805.
To *Clod* the earth, 676.
Compound water of trees, 593.
Clouds darke and thicke a great signe of raine, 34.
The nature of the Larke called *Cochenis*, and her feeding, 894.
To cut cockrels, or to make them *Capons*, 102. to fat Capons, 103. with speede, 728. to make them leade chickens, 609. to make their stones good to make leane men fat, 104. Capons of Mans and Bretaigne, 103.
Cocks and Capons must not haue their winges broken, 93. one Cock to a dosen hens, 94. notes of a good Cocke, and his colour, ibid. Cockes crowing at all howres a signe of raine, 33.
How to order & breake *Colts*, 178. the markes of a good Colt, 180. Colts how they must be looked to, 175. and to burne them, and slit their nostrils, ibid. to geld them, 176. the meanes to make them seruiceable, ibid.
Colutea, 366.
Rocke *Comfraie*, 262.
Great *Comfraie*, 263.
Compositions of honie, 418. 419.
Conies are a kinde of hares, 862. those of the warren howe they must bee cared for and fed,

fed, 808. the differences betwixt those of the warren and those of the clapper, 809.
Constraint is neuer good, 16.
Conserue of the roote of elicampane, 548.
Conserue of quinces wherfore good, 481. laxatiue conserue of quinces, ibid.
Sale cookes their vse of great deceit, 163.
Corke-trees what ground they delight in, 831.
Red *Corant* tree. 434.
Coriander, 312.
Corne of all sorts, and the manner of growing them, 683. seede Corne how it must be chosen, 678. to sowe, fanne, riddle, and lay vp Corne, vpon the ende of the moone, 42. such diuers sorts thereof as are fit to make breade, 705. Corne of diuers countries of France, and which are the best, 706. the grinding of them, ibid. Turkie Corne and how it must bee husbanded, 687. Saracens Corne or wheat, 688. aduertisements concerning all manner of Corne and pulse, 702. 703.
Cornflag, 306. distilled, 594.
Costmarie and his properties, 236.
The *Court* next the dwelling house, and the situation thereof, 20. howe it must be walled in, 21.
Cowcumbers without water, 252. how they may bee kept, 352. enemies to oile, 246. their hurtfull qualities, ibid. the obseruations to be knowne, concerning the same, 251.
Creame of milke, and how it must be prepared, 90.
Crespinette, a singular herbe against the stone, 71.
Cresses and their faculties, 238.
Crowes bathing themselues, and braying at night, are a signe of raine, 33.
Crowfoote, 273.
Cumin, 317.
Curiositie the ouerthrow of good wits, 1.
Curlew, 110.
Cuttle fishes, and the manner of taking of them, 649.

D

A *Daies* worke how much grounde it containeth, 652. criticall daies concerning the moone, 43, &c. the xij. daies of the feast of the Natiuitie, do prognosticate the disposition of the whole yeere, 37.
The huswiues *Dairie* house, 22.
The *Dairie* wooman and her office, 51. what medicines she is to knowe for the diseases of the familie, 53.
Daisies, 302.
Dates how planted, 428. Date trees how planted, 500. male and female, and their nature, 367, wh it earth they craue, 500. Dates ibid. to keepe them, 526.
Danewoort, 269. distilled 581.
Dearth, and the signes foreshewing the same, 39.
Desert grounds, how they may be prepared to beare fruite, 14.
Diaphœnicon distilled, 595.
The *Diligence* of the householder doth ouercome the weakenes of the ground, 14.
Dill, 317.
A good kinde of *Dissembling*, 28.
Distillation, by whom it was inuented, and the kindes thereof, 562. 563. Distillations of many sortes of waters; with a briefe discourse thereupon, and what Distillation is, ibid. Distillation of oiles and quintessences, with a discourse thereupon, 640. To distill herbes, flowers, barkes, and rootes, euerie one by themselues, 580, &c. the time of distilling, 564. the matter must be prepared before it bee Distilled: 575. to Distill by coldnes, 564. to Distill with the heate of sand, 578. to Distill oftentimes one and the same water, 579. and what manner of heate is requisite thereto, ibid. to Distill licours, and the manner of ordering all things therein, 584. to Distill compounde waters three manner of waies, 592. &c, to Distill *per descensum*, 597. 602. and without heate, 602. to Distill with a filtre, 603. to Distill woode, 619. to Distill liuing things, 588. Instruments and vessels for Distillation, 564. The forme of furnaces to Distill Chimycall oiles. 606. 607.
Ditches for fishes, 645.
Dittander and his properties, 274.
Diuels bit, 264.
Three sortes of *Dogs* belonging to a Farme-house, 168. to preuent their going mad, & how to handle them, 169. the names of Dogs, ididem. Dogs that hunt are of three sorts in generall, 846. their kennell and feeding, 850. their diseases and cures, 840, &c. how to traine vp yoong Dogs to fit them for hunting, 842. to swimming and diuers other prettie qualities, ibid. their tumbling

vpon the ground a ſigne of raine, 33. mad Dogs, 841. a mad Dog hauing bitten a horſe, 195. Dogs-tooth a ſigne that water will be found if there be pits caſt, 9.
Dogtree 507. and how to keepe the fruit there of, ibid.
The backe *Doore* of the houſe, 26.
A ground *Doue-houſe*, how and where it muſt be made and ſeated, 24. of Doue-houſes, 120.
Dragons, great and ſmall, 270. diſtilled, 599.
Ioyfull *Dreames* in the new of the moone, 43.
Drinks made of fruits, and a diſcourſe of the making of them, 527. Drinke of ſloes, 541. of Ceruiſes, 507. the making of the drinke of Ceruiſes, 540.
Drunkards haue a barren ſeede, 779. how hurtfull a thing Drunkennes is to man, 777.
Duckes and Drakes how they muſt be kept and hadled, 209. where they muſt ſit on nights, ibid. wilde Duckes made drunke are eaſie to take, 109. Duckes fleſh pleaſant to eate, 110. Duckes blood good againſt all manner of venome, ibid. yoong Duckes, 110.
Where the *Dung* of the ſtables is to be laide, 21. what manner of Dung muſt be laid vpon the ground, 669. nothing more deere then dung, ibid. Dung of diuers ſorts, and how and when it muſt be ſpred, 671. Pigeons dung for what ground it is good, 125. what Dung is good or euill for the Vine, 669. The Dung of Oxen, kine and ſheepe, is good for many diſeaſes, 147, 163. the Dung of men, kine, and pigeons diſtilled, and their vertues, 588. hares Dung hindereth cõception in women, 862. hens Dung ſwallowed of a horſe, and cauſing wringings in the belly, 195. hens Dung to cauſe haire to grow againe, 105. hogs Dung to ſtay ſpitting of blood, 155. goats Dung cureth the Parotides, Bubo, Sciatica, and other Apoſtemes, 167. turtle doues Dung for the ſpots of the eies, 118. gooſe Dung for the Iaundiſe, 109. dogs Dung excellent for the Squinancie, 171. to Dung the ground, and what manner of Dung it muſt be, 669. to dung the ground in the increaſe of the moone, 43. to lay any Dung to vines is a damnable thing, 734. there muſt two Dung hils be made, and why, 21.

E

Eagle the king of birds, 873. and the nature of Eagles, ibid.
The *Earth* of a colde and drie nature, 13. of contrarie qualities, according to his particular plots, ibid. diuers ſorts of Earth, and their diuers maner of tilling and increaſe, 14. blackiſh and yelloviſh Earth good and fruitfull, 15. 16.
Ebron borne the ſixt day of the moone, a good day, 44.
Eeles, make the water light, 7.
To ſet *Egs*, & how the thing muſt be ordred, 98. how to haue them to prooue cocke or hen birds, 99. without the heat of any hen, 101. Egs of ducks ſet by a hen, are more woorth then their mother, 109. Egs of partridges cauſe women to be fruitfull, 119. to roſte Egs without fire, 104. Egs written within, ibid. to make ſoft and tender Egſhels, and to waſte and conſume them, 103. what Egs are beſt, 102. Egs carried vp into the aire, 104. whites of Egs diſtilled, 599. whites of Egs to ſtay bleeding at the noſe, 105. hard Egs to ſtay the fluxe of the bellie, ibid. the yelke and white of an Eg againſt burning, 105. whites of Egs againſt the cough, ibid. Egſhels for the ſpetting of blood, ibid. the white of an Eg to ioyne together a broken glaſſe, ibid. an Eg keeping a garment from burning, ibid.
Elder tree, 359. diſtilled, 583.
Elecampane preſerued, 348.
Elmes of three ſorts, 826. where they muſt be ſowen, 426.
The *Elmegroue* and Elmes, 603.
Endiue and the ſortes and properties thereof, 218.
Ephemeron or Lilium Conuallium, 305.
Eſtrich, what manner of paſtemeat, 723.
Eue created the ſecond day of the moone, 43.
Ewes about to lambe, 156.
To *Extract* any quinteſſence, 578. 604.
The maſters *Eye* fatteth the horſe, 18.
Eyebright and his properties, 256. a compound water of Eyebright. 593.

F

A *Fadome*, what manner of meaſure, and what it containeth, 652.
Farmes, & what things are to be ſet to Farme, 27. Farmers and their duties, 28. what age and condition they ought to be of, ibid. vnfaithfull Farmers and their nature, 18. to beare too ſtraite a hand ouer the Farmer, maketh him either negligent, or elſe a theefe,

theefe,31. what knowledge is requisite for a Farmer,29. he must be true of his worde not giuen to sweare,30.it must not be looked for that the Farmer should do,or haue committed to his trust euery thing, ibid.
Farrage, or mixt prouander,699.
It is good to know olde *Fashions*, but to do as the time serueth,A prouerbe,1.
Fawlcon the prince of hawkes,875.Fawlcon is a word somtimes signifying all manner of hawkes,ibid. Fawlconrie an arte, but lately vsed,870.
Sheepes *Feete* how they must bee dressed to eate,162.
The *Field* is very badly husbanded when the Lord thereof knoweth not to command, 27.how much ground is to be allowed for a Field in seuerall,& how to inclose it, 22.
Fennell good for sight, 58.318. Fennell distilled,582.
Fenugreeke,697.
Fermentation, 577.
Ferne how it may be rid out of a ground,14.
Fesants how they must be kept and fed, 112. and where they must be lodged,24.
Fetches, in what ground they grow best,15. & their husbandrie, 696.
Fetherfew groweth in vntilled and rough grounds,320.
Laxatiue *Figs*,371.
To keepe Figs greene, 371. Figs laden vpon horses and asses make them loose all their strength, ibid. naturally written vpon,462. Fig-trees and of their fruits,370. and their plant, 433. of diuers kindes, and what soile they craue,482.when & how to graft them,483. to cause them that they loose not their fruite, 462. the Fig-tree maketh buls gentle,371.
Filberds and Filberd trees, 477.Filberds distilled,581.
The *Finch*, the most beautifull birde of all others, and how shee must be fed,and her diseases cured,885.886.
A *Fire* of coales to distill withall,577.to make a Fire without smoake,549.
Fishes die with the sound of the gunne,shot off at wilde fowle,646. their feeding in standing waters, meeres, and ditches, 647. to draw Fish togither into one place,649.Fish being sicke is refreshed with parsley, 234. Fishing, and what maner of fishing is forbidden, 646. the time for fishing, 648. Fishing in standing waters in what season, 41.
Flanders abounding with Ilands,14.
Fleas vpon dogs,and how to kill them,170.biting more then ordinarie, a signe of raine, 33.
Flesh distilled,589.
Flower-gentle, or purple veluet flower,303.
The *Flye* called Bupresti, swallowed by a horse,195. to driue away flies from horses, 185.
Folefoote,263.the mosse of Folefoote,ibid.
Fountaines, and how to trie the depth of their springs, 10.and the manner of carrying of them whither one will, 11.
Furnaces for distillation, what maner of ones they must be, 573. 574.606.in what places we must set them, 577.
Not to shoote at wilde *Fowle* in a fishpoole, because it killeth fish, 646. wilde Fowle haunting fishpooles,644.
The *Fowles* of the yeard and their pearches, 24.
Foxes of two sorts,863. the manner of taking them,866. where Foxes make their earthes ibid.their holes and caues,ibid. the way to take Foxes without hunting,867.Foxe pisse stinketh, bid.the profit comming of Foxes flesh,ibid.
Frenchmen quicke and hasty, and yet but when there is need,31.
Fritters,723.
Frogs croping more then ordinarie, a signe of raine,33,Frogs distilled,588.against Frogs, 401.
Frost,and how to keepe it from hurting seeds that are sowen,702.
Fruits for keeping,grow in hot countries,6.in what season they must bee gathered, 42. Fruits without any blooming,465. how to keepe them well a long time, 523. to haue them exquisite, 458. of what fashion you will,463.laxatiue,odoriferous, and hauing the vertue of treacle, 460.461. of the taste of many fruits,459. turning into the hardnes of stones, 13.distilled, 605. Fruit trees, in what distance they are to bee planted 519. precepts concerning the planting of them,512.
Fumitorie with his speciall obseruations,276.
Furmentie, what it is properly,687.
Furze,358.

G

THe *Gall* of a partridge to cleere the sight, 119. of a hen, 105. of an oxe, to what diseases it serueth, 146.
Garden madder, 389.
Gardens, of their situation, earth, and inclosure, 201. 202. how to make the mould better, 203. the contriuing of the floores of the pot-herbe Garden, 204, and the placing of the beds when it must bee sowen, 206. the Garden for flowers and sweete smelling herbes, and how it must bee dressed, 300. 301. of the two particular Gardens at the ende of the kitchin Garden, and of the Garden of pleasure, 389. Gardens when wed and watered, 210. Gardens and their diuisions, 24.
Garlicke, the vertues and husbanding of it, 231. to take away the stench remaining after the eating thereof, 232. good to keepe birds from hurting of fruits, 233.
Garments for husbandmen, 29.
Corne *Garners*, 681. on what side they must haue light, 22. 24.
Garrets. 24.
Garrisons verie hurtfull to farmes, 5.
The inhabitants of *Gascoigne* hot and soone angrie, 31.
Gathering of grapes in the wane of the moon, 42. to gather grapes, and the manner thereof, 752. the tooles requisite thereto, 753. grapes Gatherers, and their office and dutie, ibid.
Geese gluttonous, 107. of great profit & losse, and how they must be fed and handled, & which be the best, 106. hauing eaten henbane or hemlocke they die. 108. the Goosehouse, 24. Geese crying and flying more then ordinarie a signe of raine, 33. their diseases, 108. their remembrance, 106. wilde Geese, 106. to fat Goslings, 107. Goslings eaten are hard of digestion, 108.
To *Geld* lambes, 156. bulkins, 127. calues, 88. colts, 176. hogs, 149. all of them. 42.
Gellie of quinces, 541.
Gelliflowers of all sorts, 302.
Gerfaulcon a hawke, 877.
Germander, 274.
What thinges a *Geometrician* or measurer of grounds is to be furnished withall, 653. and how the worke of measuring is to bee performed, 657. Howe he may reduce euerie parcell of grounde into a quadrangle, 621. with a briefe summe of the whole Arte of measuring, 662. instruments and people necessarie in the performance of the same, 653. the Geometricall staffe to measure grounds withall, 655.
Girles must be kept short, 52.
A hens *Gissernes*, 104.
Gnats, and to kill them, 399.
Goates and kids and their nature, 163. their cote, 24. they are neuer without an ague, 166. and the other diseases that they are subiect vnto, ibid. their flesh causeth the falling sicknes, ibid. male Goates and their nature. 165.
Goates wheate what manner of wheate, 688.
Golden rod, 259.
Gooseberrie shrub, 434.
Gooseberries preserued, 543.
Goosegrasse, 270.
Gourds and their kindes, 246. and vertues, 247. speciall things to be obserued about them, 251. to keepe them. 352.
To *Graft* all sorts of trees, 47. to Graft fiue manner of waies, 436. the time fit for Grafting, 438. to Graft in the canon, vpon the willow, in the crowne, with a science, and with a morssell, 455. to Graft in the ends of branches, 448. to Graft in the barke, scutcheon and cleft, 440. Grafting tooles, ibid. 444. to Graft in the flute, 450. in the bud, 451. in the canon, 452. after the manner of a goats foote, 448. vine vpon vine. 457. 747. to Graft vpon the vine, a very singular and profitable thing, 457. to Graft orange trees 383. oliue trees vpon the vine, 497. plumtrees, 432. pomegrantte trees, 387. walnut trees, 492. 594. vpon a cabage stalke, 437. speciall obseruations in Grafting to haue exquisite fruite, 458. to Graft apple trees, 459. the sappes of the Graft, and Grafted tree must iumpe togither. 447: Grafting must thriue the first yeere, 441. trees Grafted in what season they are to be transplanted, 467. Grifts hauing put foorth, howe they are to bee handled, 518. vpon what trees Grafts hold best, 437. Grafts broken or burnt away must be grafted againe, 517. Grafts to Graft, 438. to chuse, gather, and cut Grafts, 443. and how they must be kept, 442. Grafts that haue put foorth, how they must be handled, 518. fruite Garners, 22.

How

How to know if *Grapes* bee ripe, 752. Grapes drying away vpon the vine, howe to remedie, 751. as also their rotting vpon the vine, ibid. grapes without kernels, 749. to keepe Grapes a long time, 750. to haue Grapes in the spring, 749.

Grashoppers hurting hearbes, and howe to kill them, 400.

At what time *Grease* woulde be gathered, 42. hens Grease, 105. Goose Grease for the paine of the eares, 108. hogs Grease good to drawe all manner of Apostemes to a head, 151.

The orchards *Greene-plot*, and the differences thereof, 422.

To *Grinde* corne, 706.

Gromell, 266.

Claie *Ground* of no valew, 15. to knowe the Ground well is the principal point to thrift 16. and how we must learne to know it, 17. arable Grounds, of their measuring, and of what forme they must be, 652. the people and instruments requisite to measure them, 653. arable grounds of what largnes they must bee, and howe many arders they craue, 665, 666. The arable Grounds of Erance what manner of ones they be, 664. what manner of things strong Groundes bring foorth, 15. strong Grounds must not bee often marled nor dunged, 7. wheate Ground how it must be tilled, 668. Grouds growe leane by being long sowen, 205. Groundes much trampled are halfe eaten, 19. Grounds vnfit to be plowed, howe they may be freed and made fit, 14. stonie Grounds how to bee made cleane, ibid. to clense Ground of weedes, before you sow it, 673. Groundes lying farre off from the lord, do breed nothing but bottles and flagons, 19. chalkie and flatie Groundes are leane, and how to make them better, 16.

Ground Iuie, 269.

Groundswell, 276.

Guaiacum distilled, 519. oile of *Guaiacum*, 622.

How to fish for *Gudgeons*, 650.

Gummes destilled, 605. to drawe oiles out of Gummes, 622. 624.

The countrie of *Guyenne*, and the fruitefulnes thereof, 19.

H

Haie how it must bee made and ordered, 633.

Haile, and the signes foretokening it, 34.

How the *Haire* may be coloured, 587.

Hares, and of the signes of a good Hare, and of her forme, 857. markes of the male and female, ibid. the hunting of the Hare is better sport then any other, 856. and how to traine vp dogges for the same, ibid. the Hare her wiles, 859. the best season for the taking of the Hare, ibid. Hares flesh is melancholike, and euill for the stomacke, 861. Hares flesh wherefore good, 862. the maruellous fruitefulnes of the Hare, 861. the more they are hunted in any countrie, the more they are, 861. Hares liue 7. yeeres, ibi.

Plough *Harneise*, 25.

To *Harrow* plowed ground, 679.

Harts are not subiect vnto any agew, 851. the hunting of the Hart is the game of great Lords, and how the whole action is to bee ordered, 843, 851. to knowe the place of the Hart his retrait, 846. the Hart his induring of the abbaie, 850. a beere for the Hart, and a barber for the wilde bore. A Prouerbe admonishing hunters, ibid. the dogs their fees due from the Hart, ibid. singular medicines that may bee made of euerie part of the Hart, 851. signes of the Hart his age, 843. when they cast their hornes, 844. their wiles, deceits, and other dispositions of nature, 845. 848.

Hart cherrie trees, 477. Hart cherries must bee grafted, 432.

Harts-horne, and his vertues, 223.

Hartsloung, 262.

Garden *Haseltree* 431. 476.

Haunters of townes will neuer make good farmers, 28.

The *Hauke* called a merlin, 877.

To *Hauke* with the faulcon, or other Hauke, and what season is best, 875, 41.

Headach, 288.

Herbes of all sortes, and in what season they must be sowen, 208. pot herbes when and howe they must bee watered, weeded, and cut, 210. pot herbes the time to set and remoone them, 211. fine herbes to sowe in gardens, 207. Herbes shewe what manner of grounde it is where they growe, 666. Herbes for flowers or nosegaies, 302. Herbes of good smell, 308. physicke herbes and how they must be ordred. 207. Herbes for the sight, 54. remedies against such accidents as happen to herbes, 397.

Heat is consisting of fower degrees, 763. Heat when it is excessiue in sommer, and what it prognosticateth, 35.
Hemlocke is hogs poison, 150.
Hempe what soile it requireth, and howe it must be husbanded and dressed, 700.
Henbane death to birds, 108. to greene geese, ibid. it is also poison to swine, and therefore called hogs bane, 150.
Henhouse must bee kept cleane, 92. where it must be placed, 24. Hens how to order and feede, 93. the markes of a good Hen, 95. to set her whiles the moone is new, 42. to take from them their desire to sit, 96. to make them fruitefull, 700. rheumes and fluxes of Hens, 96. the Hen pip, 97. olde. Hens and their diseases, 96. their cures, ibid. a Hen to sucke out venome, 104. a Hen crowing like a cocke, ouer fat, enraged, 95. to fat Hens incontinently, 728. water Hens, 110. how Hens must be fed and looked to, 93. 94.
Herod caused the children to be slaine, the 29. day of the moone, 46.
The *Heron* wandring and whirling about, a signe of raine, 33. the Heronrie and the ordering of Herons, 834. certaine obseruations concerning the Heron, 835.
Hiacynth, 305.
Hissop, 212. distilled, 582.
The *Hobbie*, a hauke, 876.
Tame *Hogs*, 24.
Hogstroughes of tamariske wood, 365. Hogsties where they must be placed, 24.
Holibocks, 254.
Honie of all sorts, 418. the notes of good Honie, 417. to make Honie, ibid. the vertues thereof, ibid. to gather honie, 415. to make diuers compositions of Hony, 418. Honie distilled, 587.
Hops, and the vertues thereof, 361.
Horehound, 314.
A *Horse* at his growth in fiue yeeres, but a man not before fiue and twentie, 830. Horses how they must be fed, tamed, and trained, 178. marks of a good Horse, 180. to know the age of a horse perfectly, ibid. Horses loue to drinke troubled water, 87. enterseering, 193. restie horses, 194. short winded, 186. hauing their backes broken, 189. prickt with a naile, 192. bewitcht, 142. how to be handled being sicke, and to what diseases they bee subiect, 181. with the means to heale them, 184. Horses find feete to goe well vpon, when they haue to feede well vpon. A prouerbe, 177. a lean Horse, 196. Horses are fatted by the masters eie. A prouerbe, 18.
Horse mynt, 310.
Horsetaile, 272.
Houndstoong, 269.
The *House* must not be to seeke for ground, nor ground for roome, 26. what is ment by the countrie House, and what it comprehendeth, 1. the Farmers lodging, 22. where the farmhouse must be situate, 4. of the inclosing thereof, 18. the entrance of the master of the familie his House, 19. a sumptuous house causeth ones better to enuy, 18. we must purchase peace and a House ready made, ibid.
A *Housholder* must forecast to haue more to sell then to buie, 19.
The *Husbandrie* of these times agreeth with the Husbandrie of the auncient times, 1. the Husbandrie of the vine both yoong and old, 743. the husbandrie of men of ancient time, according to their countries, 1. the Husbandrie of grounds diuers and variable, according to the soile and situation of places, ibid. the Husbandrie of the arbour and vine is alike, 205. Husbandmen must know the signes foreshewing raine, windes, &c. 32. the Husbandmans clothes, 29. the worke that the Husbandman must doe euery moneth throughout the yeere, 47. the Husbandmans tooles, 667.
Hunting a thing that a good husbande may lacke, 3. the profit of hunting fower footed beasts, 836. three sorts of Hunting, ibid. the Hunting of the hare more pleasant then any other, 856. Hunting of the wilde bore dangerous, 852.
A wine like *Hydromel*, and the vertues thereof 419.

I

Iacob borne the sixteenth of the moone, a good day, 45.
Iaphet borne the 24. day of the moone, 46.
Isamine, 359.
Inclosure of the orchard, 422.
The *Indies* discouered by the Spaniards, 116.
Infusions, 575. two things to be considered in Infusions, ibid. Infusions made in mans, goates, or swines blood, 576. Infusion must helpe or augment the force and vertue of the

the matter, ibid.
Ionas the prophet borne the 20. daie of the moone, a day somewhat indifferent, 45.
Ionches a kind of cheese, and the maner of making of them, 90.
Isaac borne the 18. day of the moone, a prosperous day, 45.
Iua Arthritica, or ground pine, 267.
Iuiube trees are rare in France, 508. their nature, ibid. how planted, 428.
Iuniper, 358.
Iuie causeth wine to run out of the vessell, and the water to stay in, 360.

K

THe principall *Keies* of all the house, 8.
Kids flesh well accounted of, 163, their skins how greatly profitable, 165.
Kidney beanes or fasels, 692.
The *Kitchin* the first roome to bee built in a good house, 4. where the Kitchin must be seated, 23.
Knots of diuers fashions, 323. a simple Knot, 328.
Kine and calues how they must bee fedde and handled, 86. Kine looking into the sky, and drawing in the aire, a signe of raine, 33.

L

MAn through *Labour* doth tame euerie thing, 13.
The gardens *Labyrinth*, 206. 301.
How to handle and feed *Lambes*, 24. 156. diseases of Lambes and their remedies, 162. yoong Lambes to make flocks, 156.
Lamech borne the 5. of the moone, a dangerous day, 44.
Lampreies venemous fishes in the sea, 646.
Lands driue men to contention and law, 4.
Languedocke maruellous fruitfull, 16.
Lanners a kinde of hauke, 878.
Lard distilled, 610. in what places it must bee kept, 23.
Lauander, 320. distilled, 596.
Lee of the ashes of cabadges good to wash the head, 216.
Leekes great and small, their vertues and properties, 227. at what time they must bee sowen, 208.
Lemontrees, 376. what earth Lemons require, 481.
Lentils in what season they must bee sowen, 692. to haue very goodly Lentils, 703.
Lettises of all kindes, their husbandrie, nature and speciall obseruations, 216. when they must be sowen, 208. they put foorth the fourth day after they are sowne, 200. they procure sleepe, 218. preserued, 349.
Leuaine how it must be dressed, 710.
Licours how distilled, 584. and what is meant by Licour in this place, ibid.
Much *Lightning* in faire weather a signe o raine, 33. Lightnings and what they presage, 35.
Lilium conuallium, 305.
Lillies of diuers colours, 306. their vertues, 307. water *Lillie*, 305.
The inhabitants of *Limosin* painfull, sparing, procuring rather their owne profit then an others, 31.
Linden trees and others of such like wood, 829. 831.
Linnets and their diseases, 889. their food, ibid.
Lice hurting the vine, and how to kill them, 752. Lice and other vermine haunting hens, 96. calues Lice, 88. bees Lice, 414.
Line and the husbanding thereof, 701. when to be sowen, 49. in what quarter of the moone it must be pulled, 42.
Leches and how to fish for them, 650.
Locusts come euerie thirde yeere, and what harme they doe to trees, 810. Locusts eating vines how they may be driuen away, 752.
Lote tree, 389.
Lupines and their husbandrie, 693. and whereto they are good, ibid. when they must bee sowen, before they bloome, cattel must be put into them, 703. Lupines fat the earth, 14

M

Madnes of dogs, 195.
Maine a rich and fruitfull country, 16. the people of Maine are subtile, craftie and very painfull for profit, 31.
Mallowes, 254.
Man will not be woon by rough handling, 28
Mandrags, 322.
Maple tree, 826.
Marsh corne, 689.
Marchpanes what manner of paistrie, 723.
The couering of *Mares*, and their taking of the horse, and how they must be handled, 173. their

173.their amorous rage,196.
Margerom, 318.
Marigolds and their faculties, 223. Marigolds in conserue, 351.distilled,583.
Mariſhes hurtfull to the Farme houſe,6.
Market matters would not be left vndone till after drinking,29.
Marle in what grounds neceſſarie,7.
Marquots a ſort of vine plants,737.
Beeſe *Marrow*,146.
The *Maſter* muſt know the nature of his ſeruants,31.Maſters muſt keepe more amõgſt their ſeruants, then at the towne, 18. Maſters of families their office and duty, ibid.
Maſticke tree,389.
Stinking *Mathweed*,666.
Meade and Metheglin what maner of drinke they be amongſt the Polanders and Engliſhmen,420.
Meadowes and Meadow plots, and how many ſorts of Meadowes, and the maner of making them, 632.633. &c. what manner of herbes muſt be ſowen in Meadowes, 635. to harrow, water, and cut downe Meadowes,637. to gather in the haie, 638. in what quarter of the moone they muſt be cut downe,43.
Meadow-ſweete,53.
Meale of al ſorts of corne,how it muſt be kept and dreſſed,707.
Meazeled hogs,150.all hogs better burnt then ſcalded,ibid.
Mechoacan, with a diſcourſe of his maruellous roote, 294,the reaſon of the name and his vertues,ibid.the picture of it,296.the marks of it,295.
Meddicke fodder,635.697.and the husbanding of it,ibid.
Medlars how they may be long time kept,526 Medlars without any ſtones, 461. ſweete Medlars,465.ſpiced Medlars, 460. where Medlar trees grow beſt, and what their faculties be,488.
Melilot, 322.
Melons, 248.their gathering & goodnes.ibid. certaine obſeruations about them,251.
Mercurie, 268
Meſling, 684.
Methuſalem borne the 8.day of the moone, a happie day,54.
Milfoyle, 268.
Milke, and the manner of ordering and dreſſing it well, 89. nurſes Milke doth increaſe by vſing the fomentation of the decoction of cabages, 216. to increaſe Milke in kine, 636. aſſes Milke for ſuch as are in a conſumption,196. & to make the body white, an example,ibid.goates Milke is leane,and for what diſeaſes it is good,166.their Milke is more holeſome then ſheepes Milke,164. Milke diſtilled and the vertue thereof,588. virgins Milke and the vertues thereof, 604.
Millet how it muſt be ſowen and dreſſed, 691. it groweth well in a ſandie ground,15.
Mints why of old time forbidden to captains in warre,310.
Mirrhe diſtilled,597.oile of Myrrhe,696.
Mirtle tree and his nature,364.
Miskens their foode and nature,892.
The *Mowthes* of the yeere, and their diſpoſition foreſhewed,38.
How the *Moone* increaſeth and decreaſeth,41 and of the influences thereof, ibid. what power euery quarter of the yeere hath ouer beaſtes, plants, fruits, 43. the Moone foreſhewing ſnow in the winter,34. of the criticall daies of the Moone,43.
Mortar of wiſedome,573.
Motherwoort groweth in ill tilled and rough grounds,259.
To *Mow*, 68.
To hunt *Mowles* & to kill them, 259.275. 400.
Moyſes parted the ſea the 26.day of the moon, 46.
Mugwoort,319.
Mulberies early and late,461.how kept a long time, 526. white ones that neuer grow red or blacke,463. Mulberie trees, & their ſeed where it muſt be ſowen,426.Mulbery trees of two ſorts, & what earth they loue,their properties, 489. and to graft them, ibid. how they are planted, 431.
Mulekeepers, Mulets, Mules their nature, food and diſeaſes,198.the diuerſnes of their generation, 199. Mules rubbing their eares more then ordinarie a ſigne of raine, 33. Mulets of Auuergne good for the plough, 126. they exceede all other beaſts, 675. a good Mulet an ill beaſt,ibid.
White *Mullen*,267.
Muſtadell,464.
Muſicke inuented by ſhepherds,154.
Muſhrums eaten, the remedie againſt their miſchieuouſnes,85.
Muſtard, and how it muſt be made, 352. Muſtard of diuers countries,ibid.

N

Nabuchodonosor borne the ninth day of the moone, an indifferent day, 44.
Narcissus, and why so called, 305.
Nature is neuer idle, 667.
Nauewes and Nauets, and their vertues, 206. 240. 702. being sowen they put foorth by the end of three daies, 210.
The *Neatheard* his charge and conditions, 126.
Necessitie begetteth skill, & awaketh care, 6.
A good *Neighbour* requisite, 5.
Nettle stinging and dead, 371. they make flesh to be soone sod, ibid.
New wine not very wholesome, 766. what it is, 772.
Nicotiana with his maruellous vertues, 280. an herbe of diuination, 290. the quintessence thereof, & two excellent ointments made of the same, 290. 291. distilled. 582.
Nigella, 321.
Nightingale, male and female, to knowe one from another, 884. to cure a melancholike Nightingale, 883. Nightingales how they must be handled and fed, 882.
Mad *Nightshade*, 290.
Noe the first inuenter of making and drinking of wines, 527. borne the tenth of the moone, a prosperous day, 44.
Normans would be intreated peaceably, 31.
The *North* hurtfull to the Farmehouse, 5.
The *Nurserie*, 25. the orchards Nurserie, 423. 429.

O

Okes, and their kindes, 829 males and females, 830. Okes are the most noble, and deerest of all other trees, 810. and at what time they would be planted, 812. how to sow acornes for the growing of Okes, 816. to haue Okes greene at all times, 462. they grow a hundred yeeres, stand at a stay a hundred yeeres, and are decaying a hundred yeeres, 830.
Oke of Ierusalem, 313.
Oatemeale made of oates, and the making thereof, 690. 710.
Oates and their maner of husbandrie, 690. distilled, 691.
Oile oliue of three sorts, 546. how it must be made, prepared, 545. and kept, 547. the vertues thereof, 548. Oile an enemie to plants, 549. oiles prepared three waies, 545. Oiles of many sorts and their vertues, 552. Oiles of diuers herbes, and their qualities, 555. hot Oiles, colde oiles, 553. the faculties and lasting of distilled Oiles, 617. the manner of pressing Oiles out of fruits, 549. three things must be considered in Oiles made by impression, 552. the time fittest to distill Oiles, 610. and the order to be kept therein, ibi. 613, 616. distilled Oiles, and a discourse therupō, 604. oile of roses of two sorts, 554. 555. a new way to make the same ibid. Oile of linseed, 701. of liuing things or their parts, 588. of Guaiacum, 622. of nauets, 240. virgins Oile, 547. Oile omphacine, ibid. Oile of foxes how made, 556 Oile of serpents, 557. of egges, ibid. of wheate 558. of haie, ibid. of brimstone, 559. to thaw Oile when it is frozen, 547. where to keepe and laie vp Oiles, 23.
Oliues and Oliue trees, 372. maruellous things of the Oliue tree, 373. Oliues how kept long, 526. the gathering and profite of them, 374. Oliues preserued, 544. in what ground they delight most, 496. their nature, ibid. to plant and graft them, 497. to geld them, 498. the Oliue tree grafted vpō the vine, 497. Oliue trees planted in what season, 48. grafted, ibid. 432. to make barren Oliue trees to become fruitefull, 499. Oliue trees must be kept from turtle doues and stares, 500. they hinder not vines, 737. Oliue trees full of mosse, 499.
Orange trees, what ground they craue, 481. how to plant, sowe, and graft them, 376. 382. 383. Orenges preserued, 543. distilled, 577. how kept, 526.
Organie or bastard marierome, 311.
Orpin, 269. lesser Orpin, ibid.
The Farmers *Oxen*, 22.
Oxen more profitable for the plough then buls, 127. and how they must be gelded, ibid.
The *Ozier* plot, 25, 639.

P

Palma Christi, 275.
Palmer worms and how to kill them, 399.
Pantrie, 716.
Paper indureth euerie thing, 29.
Parsneps, 244. wilde Parsneps, 635.

Partridges,

Partridges, 117.
Passum, what manner of wine it is, 773.
Paste to make bread, and how to handle and dresse it, 713.
Pasture ground, 25.
Paunsies, and their vertues, 307.
Peach plumtree, 475.
Peach-trees how planted and where, 428. grafted, 461. earely Peach tree, 491. to keepe Peaches long, 526. red Peaches, 463. spiced Peaches, 461. Peaches without stones, 464. written Peaches, 463. distilled, 599. to haue fruits halfe-Peaches, halfe-nuts, 459. Peach-apples, 467. Spanish Peaches, 474.
Peacockes are proude, lecherous, and iealous, and how they must bee fedde, 113. their roust, 24. their flesh better then the Turkies, 117.
Pearches, a fish, and how to take them, 650.
Peare plums how planted, 427.
Peares, how to keepe long, 526. early and late ones, 465. to haue Peares without stones, ibid. Peares of *Augusta*, 461. Peare trees are the most pretious of all others, except apple trees, 486. and what earth they loue, ibid.
To soften *Pearles*, 362.
Maruellous *Peason*, 362. Peason fat the leane ground, 695. to cause them to bee such as will be soone boyled, 703.
Pellitorie of the wall, 272.
Water *Pepper*, 254.
Pennyroyall, 316.
A *Penthouse* for plough-geare, 25.
Percipier, 223.
Persie, and how it is made, 537.
Persley and his vertues, 234. and why so called, ibid.
Periwincle, 265.
Presages of *Pestilence*, 832.
Petasites or Lagwoort, 261.
Female *Petum* groweth of the seede of the male, 293. his vertues, ibid. the fume of Petum appeaseth hunger and thirst, 289.
Pharas borne the nineteenth of the moone, a dangerous daie, 44.
Naturall *Physicke* must be well knowne to the Dairie wooman, 53.
To separate the *Phlegme* in artificiall distillation, 579.
The people of *Picardie* would be handled verie hotly, 31.
Pigeons of the douehouse, and how they must be fed, 121. which be the best, 123. and that they haue yoong ones thrise a yeere, 124. comming home late to their cote, a presage of raine, 33.
Pikes taken in fresh water, 645.
Pimpernell, 277.
Pine-trees, and Pine-apples, and their properties, 368. Pine-trees how planted, ibid. they craue a sandie and light ground, 503.
Pionie, 266.
Pipes for the conueighing of water from springs, 11.
Pistaces brought by Monsieur Du Bellay, Bb. of Mans, 376. what earth they craue, 428.
The *Pits* called Aronques, in Prouence and Languedoc, 7.
The *Plane-tree*, 388.
Plantaine of three sorts, and their temperatures, 666. a signe that water will be found there vnder ground, 9.
To *Plant* trees to haue exquisite fruits, 458. to Plant trees, and in what season, 467. to Plant a tree without rootes, 513. to Plant and remooue herbes, 211. and to cut them, ibid. Plants, & how they must be husbanded, whether they be of timber wood or other, 811. Plants of sciences and shootes, 431. of stones, 426. Vine Plants where and when to be Planted, 739.
Tokens foreshewing *Plentie*, 38, 39.
Ploughes, charrets, and carts, 25. Ploughes of diuers sorts, according to the countrey and soyle, 675.
The arders of Ploughing before it be sowen, 672. Ploughing, an arte that a housholder cánot want, 5. ploughing with oxen is not but of necessitie, 126. but it is best, ibid. to Plough for the second arder and third, and so to sowe, 676.
Laxatiue and sleeping *Plums*, 505. to haue Plums readie at all times, 461. Plums of Brignoles, 505.
Plum-trees how planted, 426. in what places they delight, 503. what distance must be giuen in setting them betwixt one and the other, 511. Plum-trees when they grow vndisposed and languishing, 504.
The People of *Poictou* giuen to be wily and warie, 31.
A *Pole* of measure, 652.
Polenta, what and how made of old, 710.
Polygonum, 270.
Pome-Adams, 481.

Pomiliones, what kinde of hawkes, 876.
Pomegranates, how to keepe, 525. their nature, 386. red ones, 466. without kernels, 387.
Pomegranate trees & their plant, 432. where to be planted, and their nature, 505. howe they must be husbanded and grafted, 386. to keepe them that they lose not their flowers, 387.
Poplar trees in what season planted, 825. grafted vpon mulberrie trees they bring foorth white mulberries, 463.
Poplins, 327.
Poppie, and the properties thereof, 244. the kindes thereof, ibid. wilde Poppie of two sorts, and their vertues, 270.
Pooles, how they must bee dressed and kept, 607. fish Pooles, 605. and the wilde fowle haunting the same, 606. Pooles that are famous, 607. Pooles neere to the farmhouse, 21. necessarie in drie and scorched places, 7. fish Pooles, 647.
The *Portall* on the backe side of the house, 26.
Presages of raine, &c. must be knowne to the Farmer, 32. Presages of all things that the householder must haue foreknowledge of, 34, &c.
Preseruing, what it is, and what the word doth signifie, 350. Preserues of diuers sorts, 541. Preseruing of fruits, ibid. How Preserues of fruits must be made, 543. Preserue & conserue of Gentian, 349. to Preserue hearbes of all sorts. 348.
Princes their pleasure in sommer in waterie places, 8.
Priuies stincking more then ordinarie, a signe of raine, 33.
Priuet, 306.
To *Propagate* fower manner of waies, & the time most fit to Propagate, 434.
Prouence how fruitefull, 16. the inhabitants of Prouence haughtie, and cannot abide to be reprooued, 31.
Pumpions, 248. their goodnes and gathering, 250. obseruations concerning them, 251. laxatiue Pumpions, 252. sweete smelling Pumpions, ibid.
Pulse, when, how, and where they must be sowen, 609. they must be reaped in the wane of the moone, 42. aduertisements concerning Pulse, 702.
Purslaine, and the vertues thereof, 292.
Pyes, male and female doe sit their egges, 121. Pyes distilled, 588.
The *Pyrene* mountaines abound with marble, 6.

Q

Quailes are birdes rather of the earth then of the aire, they make no nests, 119. their feeding, ibid. Quailes flesh causeth giddines and headach, ibid. it causeth also the falling sicknes, ibid,
Quarellous persons not fit to be made farmers, 28.
Quils gathered of dead geese, not so good as those which are gathered frō the liue ones, 108.
Quinces of diuers sortes, 479. Quinces made into gellie, 541. Quinces spoile other fruits growing neere them, 524. Quince trees how planted. 432, 480.
Quintessences, how they may bee extracted, 578. 604.

R

Radishes contrarie to wine, and their other vertues, 242.
Raine foreshewed by asses, 33. signes of raine, ibid.
To *Rake* lands that are to be sowen, 679.
Rams, and the markes of a good Ram, 154.
Small *Rampions*, 635.
Rauens croking and beating their winges, a signe of raine, 33.
Against field *Rats*, 400. to hunt water Rats, 646. to cause Rats and mice to dye suddenly, 400.
Reason must be preferred in all things, 20.
Rest maketh a man slothfull, 197.
Rest-harrow, an enimie to the husbandman, & why so called, 274.
Restoratiues of diuers sorts, 591. distilled Restoratiues, 590. a diuine Restoratiue, 551.
Rice, in what place it groweth, 15.
Riuers bad neighbours to dwelling houses, 8. Riuers vsing to ouerflow, are verie hurtfull, 8.
The *Robinet* or *Robin-red-breast*, and the story of him, 885.
Rocket and the vertues thereof, 235.
Roomes to tread and presse grapes in, 23.
Rootes of pot herbes, 213.
Rosemarie, 315. Rosemarie fit to build garden arbours,

arbours, 359. Rosemarie in conserue, 351. distilled, 583, 593.
Roses of diuers sortes, and their temperature, 355. Prouence Roses, ibid. Roses in conserue, 351. Roses are distilled three waies, 583. Roses distilled *per descensum*, 602. Rose water compounded, 394. Rose arbors, 333.
Rubarbe distilled, 595.
Rue and his maruellous vertues, 308.
Lambes *Runnet* good against all manner of venome, 162.
Rye, and the husbanding thereof, 683.

S

Sacres, haukes so called, 878.
Saffron how it must bee husbanded, 395. venome to the hart, 396.
Sage, 206, 312. good against the trembling of the members, 77. compound water of Sage 592.
Salmon a verie delicate fish, 645. and howe to take him, 649.
Salomons seale, 270.
Salt turning moist, a signe of raine, 33.
Samuel borne the 11. of the moone, a fauourable day, 45.
Sandie grounds what fruit they beare, & how they must be tilled, 15.
Sanicle, and the great vertues thereof, 263.
Sapa or boiled wine, 773.
Saps of grafted trees must ioyne one with another, 44.
Sauin tree, 358.
Saul borne the 21. of the moone, a happie day, 46.
Sauerie, 312. being sowen it putteth not forth till thirtie daies after, 210.
Saxifrage, 260. distilled, 593.
Scabious, 261.
Scallions, and their faculties, 233.
Sciences to plant and the manner to doe them, 434. to propagate them, 435.
Scorpion, swallowed by a horse, 195. Scorpions their biting of neate, 143.
Seabellie, and the maruellous faculties thereof, 264.
Sea onion distilled, 602.
Secourgeon what kinde of corne, and the husbanding thereof, 684.
Seede corne to choose, 678. garden Seedes, 207. and the time to sowe them, 208. howe olde, and what manner of ones they must bee, 209. and in what time they put out of the earth, 210.
Seedes distilled, 603.
Seede wheate how it must be chosen, 678.
Against *Serpents*, 401.
Husbandmens *Seruants* how they woulde bee intreated, 30.
Sesamum, 691. oile and cakes thereof, 692.
Of *Sheepe*, 152. signes of a good Sheepe, 154. howe oft a day Sheepe must bee watered, 157. where they must feede, ibi. when they must be shorne, 159. they are colde of nature, 155. their going to rut, and what forrage is best for them, ibid. howe they are kept from the wolfe, 162. their diseases and cures, ibid.
The manners of *Shepherds* in times past, 153. and what arts they haue inuented, 154. they must be gentle, 157. the Shepherds folde in sommer, 158. the fashion of the Sheepefold, & how and whereof it must be made, 153. and where it must be seated, 24.
Shrowes that spoile vines, 752. biting neat, 143. biting a horse, 195.
Siligo, what kinde of corne, 686.
Silke wormes, & the profit of them, 627. how to order them, 628. their diseases, 631.
Siluer grasse good for medicine, 261.
Simulago, 686.
Skirrets, 270.
Slips to plant gardens, 212. Slips of artichokes, 220.
Smallage, 235. his planting and vertues, ibid. laughing Smallage, 635.
Snailes swallowed by neate, 143. Snailes and how to kill them, 400. spoiling trees, 521. distilled, 589.
Sowe, and the tokens foreshewing the same, 34.
Sodom and Gomorrha sunke the 17. day of the moone, a bad day, 45.
Sommer, and the presage of the constitution thereof, 36.
Sorrell and his properties, 222.
To *Sowe* corne vpon the ende of the moone, 42. to Sowe wheate in mire, and in the increase of the moone, 676.
A *Sow* farrowing, 18. pigs, 148. Sowes eating their pigs, 149. the place for the Swinecote, 24.
Sowbread, 272.
Southernwood, 314.
Sowthistle, 218.

Sparrowes, male and female, 121. Sparrowes crying earlie, a ſigne of raine, 33. ſolitarie Sparrowes, and their nature, 892.
Sparrowhawkes of all ſortes, 874. wherein they differ from Buzzards, ibid. the manner of taking and keeping of them, ibid. their diſeaſes and remedies, 875.
Speech vnprofitable maketh a man cõtemptible, 30. Simple and true Speech cauſeth a man to be much eſteemed, ibid.
A *Spence* to keepe vittailes in, 23.
Speltcorne, and how it muſt be husbanded, 686.
Spices diſtilled, 619.
Spiders falling without any violent cauſe, a ſigne of raine, 33. a Spider ſwallowed by a horſe, 195.
Spinach male and female, and why ſo called, 225. the great profit comming thereof, 226. when Spinach muſt be ſowen, 209. it groweth vp three daies after, 210.
The *Spinke* a very beautifull and louely bird, her feeding, 886. all Spinks haue not like voices, ibid.
The *Squire* an inſtrument for meaſuring, 655.
Stables for horſe, 22.
A round *Staires*, 23.
Cow *Stalles* muſt be kept cleane, 86. all manner of beaſts Stalles how they muſt be ſeated, 20.
Stallions to couer mares, 114. Stallions to beget mules and mulets, 199.
Stars ſparkling are ſignes of great floudes of water, 33.
Starthiſtle, 260.
The *Steele* glaſſe is the bewraier of the countenance, 775.
Yoong *Stocks* & wilde plants muſt bee remoued, 429. and how they muſt be husbanded, 430. yoong or wilde Stocks to graft vpon, and how they muſt be prepared, 436.
Stomacke weake, 286.
A *Stone* in the giſſarne of a capon that maketh men apt to carnall luſt, 104.
In what place *Stones* doe ordinarily grow, 13.
Cherrie *Stones* diſtilled, 581.
Storks and their maruellous nature, 112. diſtilled, 589.
Freſh *Straw* and the benefit thereof, 147.
Strawberries, 253. their maruellous harmleſnes, and other properties, ibidem. diſtilled, 581.
Succorie, 218.
Suites and matters in law, how and by whom to be ordered, 27.
Sunne and moone two great and admirable lights, of the worlde, 40. how the Sun foretokeneth faire weather, 35. the South Sun vnwholeſome, 5. when and how the Sunne betokeneth raine or tempeſt, 32. when it betokeneth ſnow in winter, 34.
Swallowes diſtilled, 589.
Swans, and howe many are requiſite to be together, 110. their nature, ibid. they foreſee their owne death and mans, 111.
Swine cannot abide hunger, 149. more greedie then any other beaſts, how to feede them, and their nature, 147. ſubiect to the plague and many other diſeaſes, 150. their cures, ibid. to fat them, 367. in what quarter of the moone they would be kild, 151. how to ſalt them, 152. their playing and running hither and thither, a ſigne of raine, 33. honoured of the Egyptians for ſhewing them the tilling of the ground, 151.

T

Tabacco, 281.
Tale carriers are not to be harkened vnto, 52.
Tamariske, 365.
Tanſey, 319.
Great wilde *Tare*, 696.
Tartes, 723.
The *Teeth* of horſes declare their age, 180.
Signes of *Tempeſt* and thunder, 35.
Terragon is made of lineſeede, and how, 235.
White *Thiſtle*, 264.
Ladies *Thiſtle*, 260. Bleſſed Thiſtle, and the maruellous vertues thereof, 259. the hundred headed Thiſtle, and his maruellous vertues, 264. The *Tazell* his late giuen names, and his properties, 393, 394. the Tazell cloſing & ſhutting together preſageth raine, 33.
To *Threſh* corne, and the floore for the ſame, 681.
Throſtles, what manner of birdes they be, 893. ſold very deere amongſt them of old time, 119. they are of two ſorts, 894. their nature and foode, 895. Throſtles leauing the valleyes, foreſhew raine, 33.
Thyme, 311. mountaine Thyme, 316.
Tilling of the grounde, with diuers ſortes of beaſtes, according to the countrey, 674. Tillage diuers according to the diuerſitie of

of the ſoile and countrey,664. the tilling of the ground, and precepts touching the ſame,667.
The *Time* and preſages of the entrances of the fower quarters of the yeere,35.
What manner of hawke the *Tiercelet* is,876.
Tormentill,265. and why ſo called,ibid.
Torteiſes, and how to baite to take them, 649.
The herbe *Tota bona*,321.
Tourraine the garden of Fraunce,13,523. the people thereof louers of their profit,13.
Trees and ſhrubs with a diſcourſe thereupon, 353. Trees are of two ſortes in generall, 823. in what ſoyle they would be planted, 8. of the place and cheriſhing of Trees in generall, 470. to ſet ſmall Trees againe, 469. Trees grafted in what ſeaſon they muſt be tranſplanted,467. of fruit Trees in particular, 472. Trees tranſplanted are the better,436. Trees growing of ſtones, 426. the beſt ſeaſon of planting and replanting of great Trees, 467, 468. Trees planted without roots,513. Trees giuen to be ouer fruitfull, how to moderate, 519,522. to cauſe Trees to bring foorth early fruite, 522. how to husband them when they begin to grow,518. precepts of planting fruit Trees,458,512. how to plant, ſowe, and graft Trees, to come by ſuch fruit as is exquiſite,458. to dig and pinke your Trees, 517. to prune, make cleane, and bare Trees at the foote,42,47,515,516. Trees that are browſed with cattell, 513. Trees full of moſſe become leane, 516. to cure Trees, 519. yellowneſſe and the iaundiſe and weeuill in Trees, 521. and wormes troubling the ſame, 522. to cure trees that looſe their flowers, 521. a dead dog or other carrion applied to the roote of a tree that is ſicke, doth ſet it in ſtrength againe, 516. to kill wormes that hurt the rootes of trees, 514. to make a barren tree to beare fruite, 520. Trees bringing foorth grapes, 467. water Trees and their kinds and nature, 823. to make wilde Trees to growe of ſeede, 818. what ſoile is beſt for wilde Trees, their natures, properties, and differences, 822. the beſt ſeaſon to plant Trees for timber, 812. to haue green Trees of al ſorts, at al times, 462. trees delighting to grow in the water, 823. Trees of Soloigne are ſmall & ſtaruelings, 815.
Treſoile ſhutting in it ſelf is a ſigne of raine,33.
Trickmadame, 223.
Troughes at the wel ſide to water cattell at, 21. watering Troughes,7.
Trouts the fiſh, how to take them,650.
The *Turkies* rouſt,24.
Turneps the food of the inhabitants of Limoſin and Sauoy, 240. how they muſt be huſbanded and what their properties be, ibid.
Turn-ſheyres to go vp to the garners,23.
Turpentine-tree,389. oile of Turpentine,623.
Turtle doues, their feeding and diſeaſes, 118. their blood good for the woundes and vlcers of the eies, ibid. as alſo is their dung, ibid.
Herbe *Two-pence*,276.

V

Valentia, the vale of ſwannes,110.
Valerian, and the vertues thereof,258.
Veriuice, and the manner of making of it, 769. Veriuice of apples, 485.
Veruaine, male and female, 256. their nature and vertues, ibid. good for the ſight, ibid. Veruaine a ſigne that there will bee good water found, if there be a well digd,9.
Wilde *Vines*, of the herbes called Brionie, 360.
How *Vines* newly planted would be husbanded, 743. Vines of diuers kindes according to their colours and other qualities, 741. in what ground the Vine muſt be planted, 730. two thinges to be conſidered in the planting of it, ibid. Vines muſt bee planted vpon the ſouth,8. at what time to be remooued, 48. plants of Vines how to chuſe, 735. Vine plants where, when, and howe they muſt be planted,739. the blacke Vines plant,741. fower kinds of it, ibid. the huſbandrie of the Vine both yoong and old, 743. and their ſundrie earings, 745. the white Vines plant, and the kindes thereof, 742. the Vine muſt not be planted of diuers plants,738. to make the Vine newly planted to take roote, ibid. the manner of planting the Vine is diuers, according to the diuerſitie of countries and grounds,737. to cauſe the Vine to bud quickly, 749. howe to handle the Vine that hath too many branches, 751. when the Vines muſt be cut,48. Vines growing vpon trees, and Vines after the faſhion of arbours, 733. Vines wel husbanded are of great increaſe

and profite, 728. the inhabitants of Paris do husband their Vines negligently, 730. to make a barren Vine fruitfull, 751. certaine obseruations concerning the Vine, 748. to graft the Vine, and the manner of proceeding therein, 747. Vines grafted yeeld great reuenew, 457. what manure is good or euill for the Vine, 739. to manure the new Vine, 744. to prune and weede it, & the rest of the earings belonging to it, 740. to manure Vines is a precious thing 734. to make that oxen and kine doe not touch the Vine, 751. for these cattle are verie noisome to it, ibid. nothing must bee sowen amongst the Vines, 738. the Vine hateth the colewort aboue all things, ibid. the laxatiue vine, 749. treacle Vine, ibid water of the Vine, 593. how the Vine may be kept from the frost, 750. the diseases of the Vine, and the remedies thereof, ibid. the Vine nurcerie, 733. euill Vine dressers described by their effects, 740. a Vineyarde in a strong ground, 15. vineyards delight in stony places stãding towards the south 7, 8.

Vineger, what it is, 586. the manner of making of it, 766. Vineger of Squilles, 769. sweete Vineger, 768. Vineger of apples, 485. distilled Vineger, 586. and the vertues thereof, ibid. Vineger quickly distilled, 578. certaine obseruations concerning Vineger, 767. Vineger made without wine, 768. to cause Vineger to become wine againe, 767.

Dame *Violets*, 304. marian violets, 305. march Violets, 302.

A *Viper* hauing stung a horse, 195.

Vitis signifying a Vine, whence so called, 773.

W

Wafers, 723.

Walnut trees and their nuts how profitable, 494. when Walnut trees are to bee planted, 492. and remooued, 493. and how they must be alone, and why, ibid. Walnut trees grafted, 494. the more beaten, the more fruitfull, ibid. they naturally hate oakes, 493. Walnut trees without fruit and leaues till midsommer, 464. they foreshewe plentie, 493. Walnuts without shels, 462. 494. and how to haue grosse walnuts, 462. to cause Walnuts to haue a verie tender shell, 464, 494. Walnuts how planted, 126. how to keepe them greene, 525. Walnuts to cause capons to rost very quickly, 495. Walnuts preserued, 542. Walnuts of hard digestion, cause headach and shortnes of breath, 496. Walnuts distilled, 581.

Presages of *Warre*, 832.

The *Warren*, situation and profite thereof, 3. 804. and of the storing of it, 805. &c.

To *Water* herbes, 208, 512. Water the common drinke of all liuing creatures, 771. raine water meete to be gathered into cesternes, 7. the best Waters, 11. fresh Waters spring out of cold places, 6. sweet waters in particular, 596. salt or sea water how it may be made fresh, 587. allume water, 595. purgatiue waters, ibid. Waters of diuers sorts distilled, with a discourse thereupon, 561. and who was the inuentor, ibid. waters of all sorts, distilled of many herbes in particular, 580, 581. waters compound distilled three manner of waies, 592. waters distilled in Maries bath, 567. Waters distilled in the bladder, 568. to take away the heate of distilled waters, 580. the vertues of distilled waters, ibid. and their durablenes, ibid. Waters distilled of flesh, 589. waters distilled for sukes, 598. waters of licours, 594. waters distilled of liuing creatures, 588. of egges, 589. rose water distilled *per Descensum*, 602. compound rose-water, 593. muske rose water, 596. sweet water, ibid. counterfaite water of Naffe, 597. water imperiall, 594. treacle water, 593. water of the vine, ibid. of crums of bread, 569. of lard, 100. of rubarbe distilled, 595. of cowes milke, 601. of a capons broth 600. of oates making drunke like wine, 691 of calues feete, 599. of *lignum vitæ*, ibid. a. whiting water, ibid.

Waxe of all sortes, and the notes of good waxe, 420. oile of waxe, 625. and his vertue, 626. waxe distilled, 613.

Weathers hornes bring forth Asperagus, 237.

To *Weede* gardens, 210.

Wels much in requeste, & how to iudge where to finde water, 9. what manner of wels they be that haue good water, 10. wels in gardens, 25. wels going with wheeles, 7. wels that are neuer dry, 10.

Weesels, and how to kill them, 399.

Whaie, 90.

Wheate must be sowen in myre, and in the increase of the moone, 676. it loueth a strong ground, 15. how to chuse your wheat and other corne for bread, 705.

Wheate ſtarch of what manner of flower, and how to be made, 769.
Whirlewinds and their nature, 35.
Wigs, 724.
Willowe when, where, and how they muſt bee planted, 824. &c. willowes diſtilled, 599. willow plots, 640.
The north *Winde* good to keepe corne in garners, 24. dangerous for the Farmehouſe, 5. the north Winde enimie to trees, 377. ſignes foreſhewing Winde, 34. duckes ſignifying winde to inſue, 110. ſoutherne windes very incommodious for Languedoc, Gaſcoigne, and Prouence, 16.
A ſmall *Wine* to drinke in the houſe, 53. in what place ſuch ſmall wine muſt be kept, 22. the boiled Wine called *defrutum*, 773. Wine defined, with a diſcourſe and reaſon of the definition, 772, 773. Wine the looking glaſſe of the minde, 777. Wine goeth barefoote, ibid. by what men Wine was firſt inuented, 527, 773. and why it is called οἶνος in Greeke, and *Vinum* in Latine, 774. Wine with a diſcourſe vpon the intention, nature, faculties, differences, & neceſſitie of Wine. 770. of the conſiſtence of euery Wine, 791. differences of Wines according to the propertie of the countrie, 795. Wines of all ſorts, and their qualities and vertues, 782. good Wines grow in hot places, 6. Wine applieth it ſelfe to the nature of the drinkers, 778. differences of Wines according to their colours and properties, 782. to cauſe turned Wine to haue his taſte againe, 764, 765. troubled and muſtie wine, ibid. what profit Wine bringeth to mans body, 776. and alſo what diſcommodities, 777. how much Water muſt be put amõgſt wine, 780. Wine hurtfull for children, and for what age it is fit, 781. Wine hurtfull to hot and drie bodies, but good for moiſt ones, 782. the vices and accidents hapning to Wine, and how to order it in the vault, 746. at what time wine is woont principally to turne, ibid. to trie if the Wine haue no water, 486. mungrell Wines, 792. new Wines not wholeſome, 775. new Wines hotter then olde in this countrie, ibid. old Wine hotter then new, ibid. boiled Wine ſeruing in ſteed of hony or ſugar, 543. meere Wine hurteth the ſound body, 790 Wine called *Oligotherum*, when, and what feauers it is profitable for, 787. weake Wines, 794. Wines without ſmell, ibid. to keepe Wines from ſpending their ſtrength, 549. againſt poiſon or venemous beaſts falling into wine, 766. a Wine againſt the bitings of ſerpents, 461. Wine prouoking ſleepe, 749. ſignes of plentie of Wine, ibid. Winter cherrie Wine, 363. pomegranate Wine, 763. Wine of aniſe, dill, pepper, baytree, aſarum, and ſage, ibid.
Winter cherries, 362.
Winter with prognoſtications of the conſtitutions thereof, 36.
Woade, 391. the manner of making of it, 392. when it muſt be ſowen, 49.
Woodcocks, 110.
Women impatient, 100. Women hauing their tearmes cauſe pumpions to die, 252.
Yoong *Woode* husbanded, thriueth much better then that which is neglected, 814. what is to be conſidered before the planting of Woode, 809. what manner of ſoile it craueth, 822. Woods how they muſt be planted, 8 to tranſplant, lop, and make cleane Woodes, 815. the pleaſure and profite that commeth of wilde Woode planted, 819. Woode for the fire, fewell, 22. Woodes on the backeſide of the houſe towarde the north, 8. or toward the ſouth, if it be a hot countrie, ibid. timber to builde withall, when beſt cut downe, 47. Woodes of timber trees, their ſituation and diſpoſition, 810. and in what ſeaſon it muſt be planted, 811. Woode that turneth into ſtone, 13. to diſtill Woode, and the manner of proceedings therein, 619, 620.
Woolues will do nothing to ſheepe, if the foremoſt haue garlicke hanging about his necke, 162. Woolues howling neere to houſes, a ſigne of raine, 33. Woolues enraged, 840. the biting of a woolfe how dangerous and infectious, 163.
Wormes creeping out of the earth, a ſigne of raine, 33. how dangerous it is to eate the Wormе that is betwixt the clawes of a ſheepes foote, 162.
Wormwood, 314. oile of Wormewood, 556.
To *Write* and reade is not neceſſarie for a Farmar, 29.

Y

Of the *Yeere*, and a prognoſtication of the conſtitution thereof by the twelue daies, 35, &c.

A Table of the Diſeaſes and Remedies described in the Seuen Bookes of the Farme-houſe.

A

Afterbirth of women newly brought in bed, 75, 236, 268, 270, 274, 277, 314, 316, 319, 361, 358.

How the *Age* of man may be a great while prolonged, 548.

An euill *Aire*, and the means to driue it away 258, 315.

Anthrax or carbuncle, 81.

Apoſtemes, 167, 280. of all ſorts, and the healing of them, 73, 79, 151. to ripen them, 262, colde Apoſtemes, 288. Apoſtemes of the breſts, 272. Apoſtemes in oxen, 143.

Apoplexie, 57, 306, 320, 585.

To keepe *Apparell*, 314.

Appetite loſt, 236. how to recouer it againe, 366.

Anines in horſes, 184.

B

Backe, and ach of the Backe, 557.

Barbes a horſes diſeaſe, 185.

Barrennes in women, the remedies, 72, 119, 311, 313, 317, 320, 362.

To bring women to *Bed* without paine, 308, to be brought in bed before ones time, 74, difficultie to be brought in Bed, 75.

To keepe *Bees* from flying away, and to driue them, 321.

Belching, 317, at the mouth, 66.

Bellie, and the fluxe of the Bellie, 69. the coſtiueneſſe of the Bellie, 104. ach in the Belly, 556. coſtiueneſſe, 268, 272, 548. to looſen it mightily, 361. Bellie ache, fluxe of the Bellie, and the Bellie bound in oxen, 135, 136. paines of the Bellie in Horſes, 188.

Vntimely *Birth*, 265.

Bitings of dogs that are mad, 85, 233, 259, 310, 496, 502, 507. 840. Bitings of venemous beaſts, 267, 279. of the viper, 105. of ſerpents, 85, 143, 319, 461, 840, 852. of the woolfe, 163. Bitings or wounds made by the wilde bore are dangerous, 852. Bitings of ſhrewes, 143, 195. of ſcorpions, 143, flies Biting of horſes, 190.

The *Bladder*, 588.

Bliſters, 278.

Blond cluttered, 261. fluxe of Bloud, 69. Bleeding at the noſe, 62. to purifie the Bloud, 236.

Blond-ſuckers, 85.

Bloudie fluxes, 165, 171, 222, 229, 253, 255, 261, 265, 268, 272, 275, 294, 851.

The *Bodie* to make it ſound and wel diſpoſed, 548, 595.

Bots in horſes, 194.

Breath and difficultie of breathing, 287, 314. ſhortneſſe of Breath, 160, 230. 271, 314. an ill Breath, 317. a ſtinking Breath, 258. to cauſe one to haue a good Breath, 258, 306, 313. ſhortneſſe of Breath in horſes, 263. ſhortneſſe of Breath in mules and mulets, 200.

The *Breſt*, 263.

The Breſts, 272, 280, the Breſts ouer hard, 310, 502.

To truſſe into a round and cloſe faſhion, the flagging, withered, and hanging Breſts, 65, as alſo for them when they are inflamed, 66. for the canker in the Breſts, 286.

To reſolue and waſt the tumors of the Breſts, 234.

Bruſes, and blacke ſpots, 82, 270, 280.

Buboes to cure, 167.

Burning, 83, 105, 230, 268, 270, 271, 280, 305, 307, 360, 362.

Burſtings or ruptures, 269. 76. Burſting of the veſſels of the body, 272, rupture or Burſting of ſome of the inward parts, 303.

C

Cankers of all ſorts, 84, 192, 257, 262, 266, 270, 280, 360. Cankers growing in the mouth, 360. Cankers growing in the eares of dogs, ibid.

A plague *Carbuncle*, 261, 272, 288.

Carneſitie in the bladder, 274.

Cathars, 321. violent Cathars 270. Cathars in oxen, 133. in hogs, 150. in hens, 96.

Cats haires that are hard, 162.

Cheſtitie

Chaſtitie, and to make men chaſte, 305, 309, 367.
Cheeſe to keepe from being ſpoiled & rotten, 310.
The *Childe* dead in the wombe, and the manner of drawing of it foorth, 267, 270, 274. 277, 316, 358, 361. the Child not borne out his full time, 313.
Chops, 558. Chops of the lips, 229, 832. Chops of the hands, 229. Chops, 280. chops growing in the feete of horſes, 190, 193.
Colicke, and the cure thereof, 68, 191, 200, 233, 236, 238, 256, 257, 269, 278, 310, 362.
To *Conceiue*, and to make to Conceiue, 311, 313, 310. The falſe Conception in the wombe, 298.
Conſerue for the hart, 65.
For ſuch as are in a *Conſumption*, 105.
Contraction of ligaments, 264.
Conuulſion, ibid. 277, 315, 320.
The *Corne*, a horſes diſeaſe, 193.
An olde *Cough*, 287. a harde Cough, 312. Coughes of all ſortes, and remedies for the ſame, 105, 230, 277, 314. the Coughe in oxen, 134, 140. the ſheepes Cough, 159, 161. the Cough of mules, 200.
Counterpoiſons, 372, 385.
The *Courbe*, a horſes maladie, 194.

D

Deafnes, 61, 230.
Deſtillations of humours, 260, 270. Deſtillations falling downe vpon the eies, 270, 278.
To make a faire *Die* or colour, 317.
Difficultie of vrine in horſes, 188.
To helpe and comfort Digeſtion, 310, 312, 317.
Diſeaſes beginning in the increaſe of the moone, are of long continuance, 43. Diſeaſes prognoſticated, 39. the Diſeaſes of oxen, 131, againſt all the Diſeaſes of oxen, 143. Horſes their Diſeaſes of diuers ſortes, and the means to cure them, 181. the horſe his vrine ſcalding of him, 182. the Diſeaſes of ſheepe, 159. the Diſeaſes of lambes, 162. the Diſeaſes of goates, 166. the Diſeaſes of mules and mulets, 200. the Diſeaſes of aſſes 197. diuers Diſeaſes of ſwine, 149. dogges their Diſeaſes, and remedies for the ſame, 170, 840. the Diſeaſes of feuerall birds and their cures, 896. the Diſeaſes of fiſhes, 235.
A mad *Dog*, and the remedies againſt his bitings, 85.
The *Draught* gut fallen downe, 76, 263, 272, 278, 307, 362.
The oxe his Draught gut hurt, 135.
Dropſies and Hydropicall perſons, 68, 147, 222. 230. 236. 245, 269, 272, 275, 278, 288, 306, 314, 319, 351, 358, 359, 361.
Drowſines, and the remedies againſt it, 57, 312.
Drunkennes, and how to preuent it, 213, 473, 264.

E

Eares, the paine and diſeaſes of the Eares, 61. filthie and purulent Eares, 230. wormie Eares, 255. noiſe in the Eares, 243, 273, 510. exulcerated Eares, 272.
Elephantiaſis, 276.
Epiphora, 140.
Ewes with lambe, 162. hauing the ſniuell, 160. troubled with cornes, 161.
Weake *Eyes*, 167. their diſeaſes and remedies, 58, 59, 60, 118, 256, 277, 309. the web in the Eye, 105, 257. ſpots of the Eyes, 258. the Eyes full of ſpots, 862. bleared Eyes, 248. weeping Eyes, 581. fiſtulated Eyes, 593. to clarifie the Eyes, 321. Deſtillations and rheumes falling downe vpon the Eyes, 269, 270. rednes of the Eyes, 253, 276. and other griefes of the ſame, 592, 593. the Eyes of oxen, and their diſeaſes, 138. 140. Oxen hauing weeping Eyes, 143. Horſes their bleared Eyes, 184. and other their griefes, ibid.

F

Fainting, 65.
Falles, 272. Falles from on high, 79.
Falling ſickne, 57, 236, 264, 266, 275, 583, 311, 479, 198, 581, 592, 832, 307, 312, 316. the Falling ſickne is gotten by eating Goates flеſh, 166.
Farſe in horſes, 190, 261.
Feete, and the ſtench of the Feete, 74.
Feuers, 259, 495. Feuers of all ſorts, 322. a continuall Feuer, 54. quotidian Feuers, 264. tertian Feuers, 55, 258, 264, 271, 273, 274, 278, 495.
Hot Feuers, 229, 243, 248, 258, 271. quartaine agues, 54, 224, 259, 262, 264, 273, 278, 588. long and laſting Feuers, 322. Feuers com-

ming

ming of obſtruction, 255. peſtilent Feuers, 261. the oxe his Feuer, 140. the horſe his Feuer, 187. the ſheep his Feuer, 260. the ſwines Feuer, 150. the goates ague, called continuall, becauſe they are neuer without it, 166.

The *Fig* a diſeaſe in horſes, 188.

A *Fire* without ſmoke, 549.

Fiſtula, 269, 278, 250, 558, 589. the horſe his Fiſtula, 192.

A *Flea* in the eare, 303. to kill Fleas, 316.

Flegme, 277. and Flegmatick diſeaſes, ibid.

Fleſh, and to keepe it from putrifying in ſommer, 312.

To driue away *Flies* and gnats, 314.

Flowers of women to ſtay, 72, 265. 268, 278, 303, 313, 832. to cauſe them, 316, 224, 264.

Fluxe of blood, 228, 272, 375, 852. Fluxes of blood of all ſorts, 303. fluxe of blood at the noſe, 62, 105, 230, 265, 268, 271. Fluxe of blood by a wound, 265, 268. to ſtay fluxes of blood of all ſorts, 265, 266, 358, 360. the Fluxe of the bellie, 104, 167, 265, 278, 375. Fluxe of the bellie and blood, 269. the fluxe of the bellie in oxen, 132. in horſe, 294. in hens, 97.

Freckles in the face, 257, 261, 270, 277, 305.

Frenſies, and Franticke perſons, 57, 162.

Frets in little children, 316.

Fundament fallen, 268.

G

Galling of horſes their backs, 189, 194.

Gangrene, 556.

Garlicke eaten, and howe to take away the ſtench and ill ſauour thereof, 259.

Garments, and howe to keepe them from vermine, 306.

Garrot, a horſes maladie, 193.

Giddineſſe in mens heads, 236.

Goomes, 253. to cleanſe them, 313. the Goomes of horſes exulcerated, 185.

Gout, 76, 196, 263, 272, 280, 302. for all manner of Goutes and ioint ache, 77.

Grauell, 104, 236, 243, 264, 266, 330. 362 474, 594, 690, 696, 809, 832, 856.

Gripings, 317, 362, 389. in the bellie, 261, 317. womens Gripings or throwes after childebirth, 75.

Guts falling downe, and the rupture, 76, 263. 275, 278, 307, 362, 269. the rupture in a horſe, 190.

H

Haire, & to keepe the Haire from falling, 245. to colour the Haire of the head, and beard, 587. to make it red, 357. blacke, 314. the Haire fallen, 105. the falling of the Haire called Tinea, 84, 255, 261, 280.

Halting in a horſe, 192.

Hands wrinkled, 63. ſhaking, 313.

Hundwormes, 277.

Hart, the paine and griefe of the hart, 219. 264. 320. faintenes of the Hart, 187, 259, 305. beating of the Hart, 65.

The *Hartſore*, a diſeaſe that killeth horſes ſuddenly, 184.

Head-ach and paine of the head, 56, 119, 229, 231, 256, 275, 258,, 288, 310, 313, 315, 316, 321, 359.

Hemorrhoides, and their cure, 70, 228, 231, 257, 268.

Hicket, 66, 310, 317.

Horſe cloyed, 268.

I

Iaundiſe, 67, 109, 146, 189, 219, 223, 224, 235, 253, 262, 267, 303, 414, 588. Iaundiſe in trees, 521. ſuch as haue the Iaundiſe, are called Icterici, 236, 268, 272.

Iauar, a diſeaſe in horſes, 188, 192.

Inflammations, 255, 266, 271. of the mouth, 260. of the eies, 278. of the ſecret parts, 277.

ioints, and the ach of the ioints, 556.

Itch, 262, 266, 267, 271, 277, 372, 375, in ſheepe, 160. in dogs, 841.

K

Kings euill, and remedies for the ſame, 58, 147, 257, 275, 280, 322.

Knots or nodes in whatſoeuer part of the bodie, 82.

L

Leanenes through long ſicknes, 105. the mulets leanenes, 200.

Leapers, and leproſie, 266, 267, 366, 582, 256.

Liuer obſtructed, 67, 265, 266, 267, 277, 320, 357. 361. Liuer hot, 67, 219. hard, 321, 322. weake, 862. to comfort the Liuer, 264.

Lungs, and ſuch as haue their Lungs inflamed,

320.474.488.696.863. weake Lungs, 263. diſeaſed Lungs, 261. Lungs repleate with flegme, 259. to clenſe the Lungs, 277. vlcerated Lungs, 266.302.
Lyce & nits, 225. 233. to driue Lyce out of the head, 271. to kill Lyce, 85. oxe Lyce, 144.

M

Madnes of dogs to preuent, 168.170.231. 233.259.260.496.502.310.840. Madnes of Woolues, 840. the amorous Madnes of mares, 196. the ſignes of a Mad dogge, 841.
Matrix replete with humours, 277. to clenſe it, 317. the matrix ouercooled, 274. the diſeaſes of the mother, and their remedies, 72 73. the Matrix vnruly and out of order, 360 out of place, 275. harde, 255. pained after child-birth, 238.556. ſuffocating, 73. fallen downe, ibid. 274. inflamed, 74.255. hauing the colicke, 255. troubled with the fluxe, 477. exulcerated, 277. to caſt out the falſe conception therein, 319.
Meaſeld hogge, 149. Meaſles in children, 240. 306.
Megrim, 231.
Melancholie and Melancholike perſons, 311. 316.320.475.486.
Mẽbers or parts of the body ouercooled, 586.
Memorie, and to ſtrengthen it, 320.
To make men *Merrie*, 321.
Milke, & to cauſe nurſes to haue good ſtore, 66.218.243.317. 318. to take it away from them, 65. to make that it curdle not, 310. Tartarie Milke maketh drunken, 588.
Mithridate ſoueraigne againſt the plague, 495.
To *Mollifie* parts that are ouer hard, 321.322.
The *Mother* or ſecret parts in women, 261.72 73.265.287 288.311.313.320. for the Mother vnruly and out of order, 319.320.
To kill *Mothes* amongſt clothes, 549.
A ſtinking *Mouth*, 63. a ſore Mouth, 593.
Mowles on the heeles, 83.230.261.372.

N

THe *Naile* or Cathaire, 78. Nailes of all manner of ſortes, 163. the Naile in oxen, 143.
The Nailes and vlcers of the ſame, 79. Nailes broken or bruſed, 280.
Noli me tangere, 83.280.
Stinking *Noſtrils*, 61.

O

OBſtructions, 306. Obſtructions or ſtuffings of the noſtrils, 271. to open obſtructions, 274.

P

THe *Palamie*, a horſes diſeaſe, 193.
Paleneſſe of colour in women, 787.
Palſie, 245.267.302.305.315.369.
Paumon what diſeaſe it is in horſes, 193.
Peſtilence in ſheepe, with the remedie againſt it, 159.161. in ſwine, 150.
Phyſicke inuented by ſhepherds, 154.
The *Pin* and web in a horſes eie, 182.
Plague, and the remedies thereof, 53, 224.255. 258, 261, 265. 266. 273. 274. 315. 319. 385. 495. 581.
Pleuriſie, and remedies for the ſame, 64. 270. 486. 852.
French *Pocks*, 261. 559.
Common *Pockes*, 259. 261. 366. to take away the pits and prints that the Pocks leaue behinde them, 599. the Pockes in children, 79. 81. 240. 266. 372.
Polypus exulcerated, 271. 280.
Poyſon, 264. 274. 286. 315. 480. 851. Poyſon of all ſorts, 258. 259.
Contrepoiſons, 373. 385.
The Poyſon of a toade, 264.
Phthiſicke, 369.
Puſtules, 280.
To keepe the bodie from *Putrefaction*, 358.

R

Redues of the face, 58. 253. 361. 313. 385. 604.
Reines, and the heate and burning in them, 229. 251. 235. 255. 259. 262. 556.
Rheumes, 278.
Ringwormes, 78. 256. 262. 276. 282. 372. 375. 299. 604. 862. 269. 272. 276. 278. 313.
Rubies in the face, 593.
Lambes *Runnet* good againſt all ſortes of Venome, 162.

S

A *Sawſie* face, 268.
Scabs, 84. 862. in horſes, 191. in ſheepe, 159.

159.160.549.in calues, 88.in oxen.141.143. 144.about the paſterns of mulets, 200. in ſwine, 150. in dogges, 841. about horſes heeles, 189.193.
Scaldings, 360.
Sciatica, 76.167.245.257.258.264.267.269. 277.287.306.312.317.557.
Schirrous tumours, 79.257.361.
Serpents, & the remedies againſt their bitings, 85.311. to kill them, 316. Serpents gotten into the body, 85.
Shaking and trembling of the parts, 77.313.
Shingles, 278.in ſheepe, 161.
Shiuerings of an ague, 314.
Sight weake, and the remedies therefore, 58. 119.224.277.292.
Signes prognoſticating diſeaſes, 39.
Sinewes, and the paine of the ſinewes, 369. 863.diſeaſes of the ſinewes, 557. weake Sinewes, 245. to comfort the Sinewes, 556. the Sinewes ouercooled, 557. relaxed, 311. 583. oppreſſed or bruiſed, 77.315.320. prickt, wounded, or cut, 77.280.
Skarres, 257. to take away skars, 277.
Skuruineſſe, 276.
To *Sleepe*, and to cauſe to Sleepe, 57.218. to take away drowſines, 309.312.
Smelling loſt, 310.321.
A *Snake*, gotten into the bodie, 85.
Sneeſing, 245.
Sorcerie and inchantments, 259.320.
Spauins in horſes, 193.
Speech, and to recouer the Speech loſt, 305.
Spetting, & to procure Spetting, 259, 277, 314. to get vp ones Spettle with paine & much a doe, 270. Spetting of bloud, and howe to ſtaie it, 65, 219. 228. 265. 272. 275. 303. 474.
The *Spleene*, the diſeaſes and remedies thereof, 68. the Spleene obſtructed, 263, 266, 272, 287, 360, 361, 365. hardnes of the ſpleene, 167, 235, 662, 277, 322.
Spots in the face, 261. red, 58, 131, 243, 255, 257, 268, 270, 277, 305, 385. white, 230. Spots of the body, 372, 558.
Squinancie, 278, in horſes, 185. in dogs, 170.
Stench of the arme pits, 222.
Spiders, their ſtinging, and the remedie, 85. 228, 314.
Stomach, the grieſes and remedies thereof, 67. 556, 593. to comfort it, 238, 240. a weak ſtomach, 312. gnawings in the Stomach, 369.
Stone in the bladder or reines, 70, 71, 167, 233, 243. 251. 260. 262. 264. 266. 274. 320. 358. 361. 475. 489. 587. 593. 696. 809. 832. 856. 862.
Strangles in horſes, 185.
Strangurie, 72, 222, 267, 268, 367. in horſes, 182
Suffocation of the mother, 261, 317.
Sunburning in the face, 261.
Surfetting, 287.
Surot, or the hornie ſwelling in horſes, 193.
Sweating, and to procure Sweating, 259. 261, 371, 582.
Swellings, 288, 316. of diuers ſorts, 78. in horſes flankes, 191. for ſwellings vnder the ſaddles of horſes that are bruſed a meruеilous remedie, 255. ſwellings in the cods of horſes, 192.
Swelling in *Swine*, 150.

T

Taſte bad, 243.
Tearmes of women, 72, 73. 265. 270, 312.
Teeth, and the diſeaſes thereof, as the raging ach, and others, with their remedies, 62, 224, 238, 245, 256, 259, 265, 271, 313, 319, 321, 358, 372, 601. looſe, blacke, red, ſtinking Teeth, 62, 63. the horſe his Toothach, 185.
Teſticles, ſwolne in an oxe, 142.
Thirſt, 229.
Thornes, & how to drawe them out of the bodie, 270, 321.
The *Throwes* or mother in women, 75.
Womens *Trauaile*, to comfort, helpe, & eaſe them therein, 228, 234, 243, 254, 259, 267. 277.302.307.358, 510.
Tumors, 146, 162, 280, 321. hard tumours, 852. hot Tumours, 266. colde Tumours, 257. peſtilent Tumours, 265. olde Tumours in horſes, 194. to ripen Tumours, 317.
Teong blacke by reaſon of ſoms ague, 278.

V

Vlcers that are old, 255, 269, hollowe and filthie, 306. 262, 269, 588. malignant, 261, 270, 278, 280. to cicatrize old and malignant vlcers, 277. Vlcers of the mouth, 256, 260, 265. of the eares, 272. inwarde Vlcers, 269. Vlcers of the lungs, 266. of the reines, 590. comming of the pockes, 81, 264. Vlcers in oxen, 143.

A lowe and baſe *Voice*, 196. to haue a good Voice, 228.
To ſtaie *Vomiting*, 66. 265. 278. 317. to cauſe Vomiting ſpeedily, 549. to prouoke Vomite, 358. to the curing of a quartaine and tertian ague, 258.
Vrine of al ſorts, and to procure the making of Vrine, 71. 109. 222. 228. 233. 236. 251. 255. 258. 260. 264. 267. 270. 271. 274. 275. 277. 313. 316. 320. 474. 510. 582. 842. 851.
Horſes hardly able to make their Vrine, 188.

W

Warts 257. 83. 268. hanging Warts, 163.
Againſt *Witchcraft*, 259.
Fukes for *Women*, 270. 385. 598. &c.
Wormes amongſt bees, 414.
Wormes and how to kill them, 255. 259. 261. 265. 267. 270. 287. 311. 314. 320. 558. 475. 586. 852. Wormes in little children, 233. 274. 310. 313. 694. 856. the flying Worme, a diſeaſe in horſes, 188. the Wormes tormenting horſes, 194. 264. 265. to cauſe the Wormes that trouble dogs, to fall from them, 840. to kill Wormes that deſtroie trees, 520, 522. to kill earthwormes that eate the rootes of herbes, 514. to cauſe the wormes to come out of the earth in great abundance, 495. to keepe fleſh from all maner of wormes, 255.
Wounds in dogs, 841.
Wounds, 257, 260, 269, 280. againſt all ſortes of Wounds, 266. againſt the inflammation in Wounds, 360. freſh and new Wounds, 79, 269, 272. 280, 283. old Wounds, 80, 280. maligne Wounds, 261. Wounds in the armes and legs, 286. Wound in the noble and inner parts, 269, 270. Wounds with dags, 82. to drawe iron out of a Wound 258. Wounds in the head, 262. in the guts, 362. for to conſider of inward and outward Wounds, 293, 267, 269, 275, 277. an excellent Balme for greene Wounds and cuts, 269.
Wringings, 317.
Windineſſe in the ſtomacke or bellie, ibid.

Y

The *Yeard* ſwolne, and the cure thereof, 74. the Yeard of an oxe growne hard, 137.

FINIS.